Question words in pidgin and creole languages¹

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Abstract

This article is concerned with the question of what the study of function words in pidgin and creole languages can contribute to the study of pidgin and creole genesis. Four main questions will be discussed: (a) to what extent could substratum languages have made a contribution to the analytical systems in creoles? (b) do the question words perhaps reflect universal tendencies toward semantic transparency in the creole languages? (c) what was the role of the lexicon of the colonial languages? (d) is there any evidence about the periodization of the genesis of question words?

Superstrate effects are easily identified, although not often present in non-creole-continuum situations. Substrate items are rare — at least where the phonetic form of the substrate is preserved, and in many cases the substrate is different from the creole and pidgin forms. We are left with a large residue of cases where we cannot always distinguish between semantic transparency and relexification from a substrate source.

This article is concerned with the question of what the study of function words in pidgin and creole languages can contribute to the still ongoing debate about how creoles emerge. Function words are of special interest for several reasons:

- being morphosyntactically defined, they have a central status in the lexicon;
- they are normally less susceptible to replacement due to processes of historical change than content words, as is demonstrated in the study of Indo-European languages;
- despite this, as we will see below, they tend to be innovative in creole languages with respect to the relevant lexifier languages.

As is well known, the majority of known creole languages have adopted their vocabulary to a large extent from colonial languages. For this reason we often speak of French, English, Portuguese, etc., creoles. The content

words of French and Dutch have remained, in Haitian and Negerhollands respectively, as follows:

(1)	a.	Haitian	vini	dōmi	tab	māde
	b.	French	venir	dormir	table	demander
(2)	a.	Negerhollands	kom	slap	tavl	vraeg
	b.	Dutch	komen	slapen	tafel	vragen
			'come'	'sleep'	'table'	'ask'

For function words there is a much more indirect correspondence. Here we will study a class of function words that has been recently discussed in the literature: question words.

The most striking characteristic of question words in a number of creole languages is their analytical character. In (3) we give some examples:

(3)	a.	wa tit (Q-time)	Negerhollands
		when	
		(compare Dutch 'wanneer')	
	b.	o pe (Q-place)	Sranan
		where	
		(compare English 'where')	
	c.	ki žā (Q-genre)	Haitian
		how	
		(compare French 'comment')	

In all these examples we find a form that can be represented abstractly as QUESTION PARTICLE (Q) + QUESTIONED SEMANTIC UNIT (QSU). This question particle we will indicate as Q in the glosses.

We will analyze question words from a number of perspectives, reflecting current approaches to lexicon formation in creole studies. Four main questions will be discussed:

a. To what extent could substratum languages have made a contribution to the analytical systems in (3) and to possible other non-European forms (Alleyne 1981; Lefebvre 1986; Boretzky 1983)? We reject any gradual 'relexification' under monogenesis (from a West African Portuguese pidgin) or Afrogenesis, in situations of communal linguistic confrontation between, for example, a European planter class and an African slave class. We do accept the possibility of relexification as a mechanism in forming a new language in a bilingual situation.

b. Do the question words perhaps reflect universal tendencies toward semantic transparency in the creole languages (Seuren and Wekker 1986; Bickerton 1988)?

c. What was the role of the lexicon of the colonial languages? In which

way did they contribute the building blocks for the creole question-word systems?

d. Is there any evidence about the periodization of the genesis of question words? Are they characteristic of the mature creole stage, or do they occur in developing pidgins as well?

Our paper is organized as follows. In section 1 we analyze a number of creole question-word systems. In the following sections, the four research questions mentioned will be discussed in turn. We present some conclusions and a list of questions for further research in section 6.

1. The analysis of question words

Next to forms such as (3), presented above, we also find other types, such as those in (4):

- (4) a. wen 'taym 'when' Jamaican
 b. ken 'who' Papiamentu
 c. andi 'what' Saramaccan

These forms deviate in various ways from the analytical model in (3). They may be a direct reflex of a form from the colonial language, as in (4b), or consist of a mixture of the full colonial language form and a questioned element, as in (4a). Finally, there is the possibility that they reflect neither the colonial language nor the analytical model in (3), as in (4c). After having presented a more complete typology of creole question-word systems, we look at these systems in the following sections from the four different perspectives mentioned above.

To begin with, some terminology. We will refer to an *opaque* Q system when the various Q words are not analyzable into smaller units, when we encounter forms that we must represent morphologically as X?, Y?, Z?. On the other hand, we will refer to a *transparent* Q system when the various Q words are analyzable into a Q element and an element indicating what is questioned (QSU = questioned semantic unit): that is, Q-X?, Q-Y?, Q-Z?.

For example Margi *wa* 'who' and *mi* 'what' are opaque, while Igbo *onye olee* 'who' (person-Q) and *ihe olee* 'what' (thing-Q) are transparent. In Table 1 we present the transparent system of Chinese Pidgin English, and in Table 2 the opaque system of KiNubi.

A transparent system can also become opaque through time. Latin *quis*, *quid*, *quando*, *cur*, and other Q words represent the historical reflex of a transparent system, but only a few forms are still transparent in

Table 1. *The transparent question-word system of Chinese Pidgin English (Bisang 1985)*

	Forms	Analysis
WHO	who (-man)	who (-man)
WHAT	wat ting	Q-thing
WHICH		
WHEN	wat-time	Q-time
WHERE	wat-side	Q-side
WHY	wat-for	Q-for
HOW	how (-fashion)	how (-fashion)
	wat-fashion	Q-fashion

Table 2. *The opaque question-word system of KiNubi, a creolized language spoken in southern Sudan (Heine 1982)*

	Forms	Analysis
WHO	munú	who
WHAT	s(h)unú	what
WHICH	yatúú	which
WHEN	mitéén	when
WHERE	wén	where
WHY	léé/malú	why
HOW	kééf/kefin	how

classical Latin. Thus the forms in (5) would probably qualify as transparent:

- (5) quis who Q-he (is 'he')
 quid what Q-it (id 'it')

but not those in (6):

- (6) quando when * Q-ando
 quam how * Q-am

We will call this a *fused* system.

A different type of system, which we will call *mixed transparent*, is to be found in a number of English-based creoles, where the Q element varies according to the QSU element. Here we typically find the forms in (7a), as opposed to the purely transparent forms of (7b):

(7) a. mixed transparent	b. (pure) transparent
who-man	Q-man
what-thing	Q-thing
which-one	Q
when-time	Q-time
where-part	Q-part
why-reason	Q-reason
how-fashion	Q-fashion

A system which is to a large extent mixed transparent is Jamaican Creole, some of whose question words are presented in Table 3.

In several tables with question words we will have to distinguish between which = A, the adjectival use of 'which' in forms such as 'which boy?', and which = N, the nominal use in forms such as 'which did you buy?'. The available data for a given language are not always sufficiently detailed to allow us to distinguish between these usages, so that we have only included them when relevant. In other cases we just refer to 'which', when it is unclear which of the two is meant. Often, the form used in the two cases will be identical. Similarly, we sometimes need to distinguish between the adverbial use of 'how' as in 'how long', and the independent, nominal use as in 'how did you do it?'

A final type of question word is derived from the transparent type but results from the dropping of the Q particle, so that only the QSU element remains. This type we will call *atrophied*. Sranan is an example of a language which contains such forms, as can be seen from Table 4.

In nearly all the cases where the Q particle is dropped, the reason why this is possible is obvious. In a number of these cases the Q element has undergone a change such that it is no longer homophonous with the corresponding free morphemes. We illustrate this in Table 5. The two forms that have lost the Q particle altogether, *fa* and *san*, are distinct from their etymological antecedents *fasi* and *sani*. When the full forms

Table 3. *The mixed transparent question-word system of Jamaican (Bailey 1966; Cassidy and LePage 1980)*

	Forms	Analysis
WHO	huu (-dat)	who (-that)
WHAT	wa(t)/we/wara	what
WHICH	wich	which
WHEN	wen-taym/wen	when-time/when
WHERE	we-paat/we	where-part/where
WHY	wa-mek	what-make
HOW	ou	how

Table 4. *The partially atrophied question-word system of Sranan*

	Forms	Analysis
WHO	(o)s(u)ma	(Q-) person/(Q-) <i>sma</i> > who
WHAT	(o)san	<i>san</i> > what
WHICH	o-disi/(o)sortu	Q-this/(Q-) sort
WHEN	o-ten	Q-time
WHERE	(o)pe	(Q-) <i>pe</i> > where
WHY	(fu)san-ede	for- <i>san</i> -head
HOW	o-fasi/fa	Q-fashion/ <i>fa</i> > how

Table 5. *A closer look at the Sranan question words*

Free form	Gloss	Q word retaining Q particle	Q word with optional or no particle
<i>sma/suma</i>	person		(o) <i>suma</i>
<i>sani</i>	thing	o- <i>sani</i>	<i>san</i>
<i>disi</i>	this	o- <i>sani</i>	
<i>sortu</i>	sort		(o) <i>sortu</i>
<i>ten</i>	time	o- <i>ten</i>	
<i>presi</i>	place		(o) <i>pe</i>
<i>fasi</i>	manner	o- <i>fasi</i>	<i>fa</i>

are used, the Q particle is compulsory. All the compulsory cases of the Q particle, moreover, involve such full forms.

There are three forms not covered by these statements. *(o) suma* does not contain the usual free form, for which *sma* is now more normal. *(o) pe* contains an element which also occurs marginally in compounds such as *beri-pe* ‘graveyard’ (that is, ‘bury-place’) and as such might be felt to be more meaningful. *(o) sortu* lacks an obvious explanation.

The existence of partially atrophied systems brings to mind the fact that we must be careful in taking contemporary descriptions as representative of the early forms of creoles. Whenever we have good documentation for earlier stages of a creole, we can see that question words have undergone a number of changes. Consider as perhaps an extreme example the recorded forms for ‘why’ in four stages of Sranan:

- (8) WHY
- 1718

1783

1856

1980
- verwate (? = for what/for-what-thing; see Table 14)

hu heddi/va hu heddi

san hedde/vo san hedde

san ede/saide/fu san ede

Given the typology we have established in this section we can now

Table 6. *A preliminary typology of creole question-word systems*

	Transparent	Mixed transparent	Opaque	Fused	Atrophied
English-based:					
Sranan	x				x
Saramaccan	x		x	x ?	
Ndjuka	x				x
Jamaican	x	x	x		
Guyanese	x	x	x		
Gullah	x	x	x		
Tok Pisin	x	x	x		
Cameroonian	x	x	x		
Chinese PE	x	x	x		
Krio	x	x	x		
French-based:					
Haitian	x	x	x		x
St. Lucian	x		x		x
Louisiana	x		x		
Seychelles	x		x		
Portuguese-based:					
Papiamentu	x		x		x
Principe			(x)		?
Dutch-based:					
Berbice	x		x		x
Negerhollands	x		x	x	
Other-based:					
KiNubi			x		
Sango	x				

classify a number of the creole languages as in Table 6, keeping in mind that many systems have characteristics of different 'types'.

Having sketched some of the types of question words found in creole languages, we now turn to the four research questions we posed at the beginning.

2. Substratum influence

Since there are African languages with transparent (analytic) forms too, it is tempting to think of the widespread occurrence of analytic question words among the creoles as being due to substratum influence. Here we want to go into this possibility in slightly more detail than is customary. All the available evidence points to three languages as having played a major role among slave populations in the Caribbean, particularly in

Table 7. *The transparent question-word system of Fon (Segurola 1963; Rassinous 1974)*

	Forms	Analysis
WHO	*mɛ-tě > mɛ	*person-Q > mɛ (fusion)
WHAT	e-tě/ani/*nu-tě > nɛ	that-Q/what/*thing-Q > nɛ (fusion)
WHICH = A	tě	Q
WHEN	hwe-t (-nu)	time-Q(-at)
WHERE	fɪ-tě/fiɛ	place-Q/fiɛ (fusion)
WHY	ɛ-tě-ú(tú)/ani ú(tú)	that-Q-body/what body/
	ani gbe/nɛ-gbo	what-aim/what-toward
HOW	nɛ ... gbo	what ... by

Surinam, Jamaica, and Haiti: Fon (Table 7), Twi, and KiKongo. In this section we present the question words of these three languages.

The Fon system is highly transparent, and this has led Lefebvre (1986), in her systematic contrastive analysis of Haitian and Fon, to conclude that the creole is essentially a relexified form of the West African language. Note that Lefebvre does not mention the existence of the opaque form *ani* 'what', which would slightly decrease the parallelism between the Fon and Haitian systems. In Table 8 we present the Haitian system. Note that one major difference between the Fon system and the Haitian system is that in the former the Q particle occurs on the right and in the latter on the left. Lefebvre explains this difference in terms of different headedness in the two languages.

Consider now the Twi system, shown in Table 9, which is only partially transparent, and in fact has one mixed transparent form, *hen-fa* 'where side/part'.

In the previous section we saw that Jamaican Creole has a mixed transparent question-word system. One way to explain the Jamaican system is in terms of decreolization: the (incomplete) adaptation of the Jamaican system to the colonial standard, English. Thus an original

Table 8. *The transparent question-word system of Haitian (Lefebvre 1986)*

	Forms	Analysis
WHO	ki-mun	Q-person
WHAT	(ki-) sa	(Q-) that
WHICH = A	ki	Q
WHEN	ki-le	Q-hour
WHERE	(ki-) kote/ki-b	(Q-) place/Q-place
WHY	pu-ki (-sa)	for-Q (-that)
HOW	ki-žā, kuma	Q-manner/how

Table 9. *The question-word system of Twi (Fante) (Berry 1960)*

	Forms	Analysis
WHO	woana	who
WHAT	ben (A)/dɛn (N)	what (A)/what (N)
WHICH	muana	which
WHEN	da ben	day/time what
WHERE	henfa	where side/part
HOW	dɛn	what (N)

transparent form such as 'what time' may be reinterpreted as 'when time' under English influence. The facts from Twi suggest a second possibility, however, namely that the Jamaican mixed transparent system is a generalization of mixed transparent forms in Twi. This is not implausible given that Twi was the single most important African language spoken in Jamaica during slavery (Alleyne 1986, 1988).

Even if the correspondences between Fon and Haitian, on the one hand, and between Twi and Jamaican, on the other, tentatively suggest that a substratum origin for the creole question-word systems is not impossible, we should keep in mind that it is by no means the case that the African systems are generally transparent. In fact, many are not. KiKongo, which played an important role in Caribbean slavery, is an example; see Table 10.

In fact we will shortly see that there are other explanations for the transparency of many creole question-word systems. The only cases where substratum influence is undeniable are those where actual forms inherited from potential substrate languages surface in the creole.

Consider the system of Berbice Dutch, shown in Table 11. It is now known (see Smith et al. 1987) that a major component of this creole was supplied by Eastern Ijo, resulting in Ijo features of lexicon, morphology,

Table 10. *The question-word system of Kikongo (here CM = class marker, a morpheme indicating the noun class to which the questioned element belongs) (Lumwanu 1973)*

	Forms	Analysis
WHO	nani/na:	who
WHAT	nki	what
WHICH	nkia (A)/CM-e (A/N)	which/what
WHEN		
WHERE	CM-e (N)	where/what (N)
WHY	bw-e (Cl.12)	why
HOW	mu nki	inside what

Table 11. *The question-word system of Berbice Dutch, spoken in Guyana (Kouwenberg, to appear)*

	Forms	Analysis
WHO	wi	who
WHAT	wati/wa(so)	what/what (so)
WHICH	welēke	which
WHEN	wanere	when
WHERE	wa-anga > wanga	Q-place
WHY	wa(t)-skol	Q-cause
HOW	hoso	how so

and syntax. Of the Eastern Ijo dialects, Kalabari appears to have provided the major influence. One of the Berbice forms seems directly derived from Kalabari:

- (9) Berbice Dutch: wa-anga
Kalabari: to-angaa
Q-place

The Kalabari QSU has been reinterpreted as a postposition in Berbice Dutch. The rest of the Berbice Dutch forms derive directly from Dutch, with the exception of *wa(t)-skol* ‘why’, where the origin of the second element is obscure.

Following the same kind of reasoning, we can establish that the Saramaccan question-word system is a second likely case of substratum influence. Consider Table 12. The forms that we can relate to an African substratum are *ambé* ‘who’ and *andī* ‘what’. Smith (1987) argues that these derive from Fon *me/mě* ‘who’ and *ani* ‘what’. The fact that the Fon word for ‘who’ has no initial *a* is presumably a recent development, given the cognates in other Gbe dialects:

- (10) ‘person’ ‘who’
Fon *mě/me* *mě/mě* < *mě-té/mè-té*
Vhe *ame* *ame-ka* (Westermann 1905)
Gen *àmè* *àmè-ké* (Bole-Richard 1983)

The occurrence of prenasalized *mb* and *nd* in the two Saramaccan forms requires mention. The very fact, of course, that the same development is seen in both items strengthens the hypothesis that the Fon forms represent the sources of these items. This should not of course be interpreted to mean that we consider the occurrence of prenasalized stops as evidence of African origin as such. These sounds are of course found in many items of English origin as well as those of African origin, although it is

Table 12. *The question-word system of Saramaccan (LOC = locative particle) (Donicle and Voorhoeve 1963; De Groot 1981 [1977])*

	Forms	Analysis
WHO	ambé	who
WHAT	andí	what
WHICH = A	ún-	Q
WHICH = N	ún-di	Q-this/that
WHEN	(na)-ún-té	(LOC)-Q-time
	(na)-ún-júu	(LOC)-Q-hour
	un-júu-té	Q-hour-time
	naóten	(atrophied) < na-ún-tén
WHERE	un-kamia	Q-place
	(na)-un-sé	(LOC)-Q-side
	naasé	(atrophied) < na-ún-sé
WHY	andí	what
	fu andí édi	for what head
	fu andí mbéi	for what make
	fu andí báka	for what back
	andí mbéi	what make
HOW = N	(ún)-fá	Q-fashion
HOW = A	ún-	Q-

a clear case of African influence. As the development of prenasalized stops from nasals only takes place in Saramaccan preceding oral vowels we can identify the Fon variant *m* or rather **ame* as the source of the Saramaccan form.

The fact, however, that the two items 'who' and 'what' may well be derived from (seventeenth-century) Fon does not necessarily imply that the whole system of Q words in Saramaccan is based on that of Fon. In particular the forms for 'why' in the two languages would seem to have different models:

(11) Fon	Saramaccan
what aim	what
what (< thing-Q) toward	for what head
that-Q body	for what back
what body	(for) what make

If for Saramaccan it is at the same time the case that some opaque forms are directly derived from Fon, and that some transparent forms are unrelated to Fon, then the hypothesis that transparent creole question-word systems are based on African models such as Fon is without support. This distribution would be precisely forecast by the successor to

Bickerton's language-bioprogram hypothesis, the lexical learning hypothesis.

A number of objections to the above hypothesis of the direct Fon origin of the words for 'who' and 'what' in Saramaccan have been raised by a reviewer of this article. An important problem concerns the time that Fon **mɛ-tɛ* fused to *mɛ*. Had this taken place by the seventeenth century? As far as we know there is no evidence bearing on this, one way or the other.

A second problem concerns Schumann's (1778) eighteenth-century form *ondi*. We would claim that this is a simple error — there are quite a few others in Schumann's vocabulary. In addition a change from *ondi* to modern *andi* would be unparalleled.

Schuchardt's derivation of eighteenth-century *ondi* from the analytical form **hu-sondi*, which is quoted with approbation by the reviewer, must be rejected. This is completely unparalleled in the context of the question words with clear etyma. A similar origin from **hu-sombadi* in the case of *ambe* is even more unlikely.

Apart from the obvious difficulty with the vowels, we might ask why, if 'somebody' (*sombadi*) developed to *sombre*, **hu-sombadi* did not develop in a parallel fashion, that is, to **ombre* in eighteenth-century Saramaccan? Note that the loss of /r/ so typical of modern Saramaccan is probably a nineteenth-century innovation.

Therefore we feel we can maintain our analysis of Saramaccan, which is crucial to our argument.

3. Semantic transparency

As is clear from Table 6 and from a number of the specific examples of creole question-word systems given so far, many of these systems show a greater or lesser degree of semantic transparency. Seuren and Wekker (1986) study the occurrence of semantic transparency in creole languages and hypothesize that this represents a basic strategy of creolization. It could be considered the semantic complement of Bickerton's bioprogram (1981). The application of their idea to question-word systems would appeal to three basic principles:

- uniformity, that is, the maximum uniformity in the treatment of semantic categories;
- universality, that is, the minimum of reliance on language-particular rules;
- simplicity, that is, the minimum possible of processing necessary in proceeding from semantic analyses to surface structures, and vice versa.

This would result in a question-word system of a uniform type, involving separate adjacent Q elements and QSU elements in a consistent order.

Before going on we should mention that the QSU elements that can appear in the various Q words are quite varied. We find, among others, those in (12):

(12)	who	Q-man/person
	what	Q-thing
	which = A	Q-O/Q-kind/appearance/sort
	which = N	Q-one/this
	when	Q-time/day/hour
	where	Q-part/place/side
	why	Q-head/make/body/bottom/reason
	how = N	Q-fashion/way/manner/method
	how = A	Q-O

It is not immediately obvious how the variation found in the different QSU elements is to be reconciled with the universality requirement imposed by the semantic-transparency hypothesis.

With the exception of the Saramaccan items for 'who' and 'what', the question-word systems for this language, and also for late eighteenth-century Sranan, would seem to be totally transparent. Outside the traditional Q-word system the Q-particle is productively used with nouns and adjectives. We give some examples from Saramaccan (De Groot 1981 [1977]):

(13)	a.	un-né	fi-i?
		Q-name	for you
		'What is your name?'	
	b.	un-dégi	mi músu sán di paanga?
		Q-thick	I must saw the board
		'How thick must I saw the board?'	

4. Superstrate influence

Whenever a creole language has been under the influence of its own colonial lexifier language, the (presumably) originally transparent question-word system appears to have been affected to some degree by that of the colonial language. This applies at least to the French and English creoles of the Atlantic region. It is less clear to what extent the Portuguese-based creoles (for which relevant data are lacking in some cases) had

completely transparent systems, and the Dutch-based creoles differ in this respect.

The influence of Standard English is clearly present in the Krio system, which normally has English-derived forms alternating with transparent forms; see Table 13.

A comparison with the question-word systems of Cameroonian Pidgin English and Fernando Po English, which are obviously closely related, supports the idea that the influence of Standard English has spread in Krio; see Table 14. The systems of the latter two creoles are quite similar to that of Krio, the exception being that the forms directly derived from English question words are generally lacking.

The question-word system of the colonial languages did not only make itself felt in a process of later adjustment. In the earliest formative stage, speakers of the early creole or its antecedent pidgin must have had access to a minimal question-word system, to form the Q element. Thus the Atlantic English-based creoles with a clear Q element generally derive this from 'which':

Table 13. *The question-word system of Krio (Fyle and Jones 1980)*

	English	Transparent
WHO		u/uda/udat
WHAT	wât	we(tin)
WHICH = N		úswân/úskâyn
WHICH = A		us/úskâyn
WHEN	wěn	ustēm
WHERE	we	usây/úspât
WHY	wây (fɔ)	we(tin) fɔ/wetin mek/ wetin du
HOW	âw	a

Table 14. *The question-word systems of Cameroon and Fernando Po (Todd 1984; Dwyer 1967; Mariano de Zarco 1938)*

	Cameroon	Fernando Po
WHO	hú/hús/hús man	u
WHAT	wétin/húskayn tin	uetin/uat
WHICH = N		us uan
WHICH = A	húskayn	us
WHEN	hústaym	us tem
WHERE	húsay	ussaid
WHY	fɔ seká wetin wáy	fo uetin uetin ... fɔ
HOW	há	au

(14)	Providence	uč
	Cameroonian	hu(s) (other dialects: wi[s])
	Krio	u(s)
	Guyanese	wi
	Saramaccan	un (1778: hu)
	Sranan	o (1783: hu)
	Ndjuka	on

The phonological change *wi*→*u* has frequently operated in the creoles of Surinam; compare the eighteenth-century forms *u* ‘we’, *kunji* ‘squeeze’. *sum* ‘swim’. Note that the lowering of the Sranan vowel is a modern phenomenon — right through the eighteenth century we have /u/ (from 1718 to 1783). The first nonproblematic occurrence of (*h*)*o*- is in 1798 in Weygandt. The *o* in Ndjuka (which is directly descended from an eighteenth-century form of Sranan) must receive the same explanation as that of Sranan. Note that we are claiming that the change /wi/ to /u/ in forms derived from ‘which’ took place in the pidgin/creole phase, not in the English model.

The comment by a reviewer that /w/ and not /h/ is the regular reflex of English /(h)w/ is falsified by the Saramaccan reflex of ‘whip’, namely (*h*)*úpi*. This must derive from an earlier **hwipi*. /hw/ is, pace the reviewer, no less likely in early creole phonology than the amply illustrated /kw/.

Note the Providence form *uc* provides incontrovertible evidence of a /u/ form that must be derivable from ‘which’.

Note also that we do not regard Krio *we* as a true Q element, since it occurs on its own, as well as together with a QSU element deriving from English ‘thing’.

We would heartily agree with the same anonymous reviewer that the earliest ‘West Atlantic proto-form’ was /hus/. It is precisely the fact that Proto-Sranan only allowed CV and CVN structures that explains the occurrence of **hu*. Normally the CV syllabic structural type assumed for Proto-Sranan by Smith (1987) induces an epithetic vowel in C-final items. However, it is precisely in function words that we can expect the other option, that of dropping the final C, due to the high frequency of their use.

The Pacific English-based creoles, on the other hand, have a Q element derived from ‘what’:

(15)	Chinese Pidgin English:	wat
	Tok Pisin:	wa

The Dutch-based systems, inasmuch as they are transparent, have forms derived from *wat* ‘what’, as well. The French systems have a Q

element *ki*, which could be from French *qui* 'who' or *quel* 'which'. The Portuguese systems tend to be opaque.

5. Pidgin or creole development?

The historical development of function words in the pidgin and creole languages has been the subject of some debate. The issue is the following: did the structural development of the creoles out of pidgins take place within a single generation, as claimed, for example, in Bickerton (1981), or was it a much more gradual process, involving perhaps several centuries? In recent work Carden and Stewart (1988) have focused on the development of reflexives in Haitian and argued that in early (that is, seventeenth and eighteenth century) Haitian there were no separately formed lexical reflexives. Arends (1988) argues that eighteenth-century Sranan still had many pidgin features, and that creolization was not complete until much later.

Here we will briefly consider the evidence from question words in eighteenth-century Surinam creoles relevant to this issue. For Sranan there are four principal sources, which we have listed in chronological order:

Herlein (1713):

WHO	oe som bady	Q-person (see comments)
WHEN	oe tem	Q-time
WHERE	oe plesse	Q-place
WHY	ver wate	(see comments)
HOW	oe fasse	Q-fashion

Nepveu (1765):

WHO	hoe soma	Q-person
WHEN	hoe tem	Q-time
WHERE	hoe ple(i)si	Q-place
HOW	ou fasi	Q-fashion

Van Dyk (c. 1770):

WHO	hoe zomma	Q-person
WHAT	hoe zanti/zan	Q-thing/ZAN > what
WHERE	hoe ply	Q-PLY > where
WHY	hoe fa	see HOW
	fo zan hede	for what head
HOW	hoe fassi/hoe fa	Q-fashion/FA > how

Sranan (Schumann 1783):

WHO	husomma	Q-person
WHAT	husanni	Q-thing
WHICH	hudissi	Q-this

WHEN	hutem	Q-time
WHERE	(na) hupeh	(LOC) Q-PEH > where
	husei	Q-side
WHY	(va) huheddi	(for) Q-head
HOW	hufasi/hufa	Q-fashion/FA > how

Even if the data are not complete in all sources, it seems rather clear that from the early eighteenth century on a full-fledged transparent system had emerged in Sranan.

The same thing is true in the case of Saramaccan (except for the forms, previously discussed, which have a direct African source). For Saramaccan there is one major eighteenth-century source:

Schumann (1778):

WHO	ambeh	who
WHAT	ondi	what
WHICH	hudi	Q-DI > which
WHEN	hutem	Q-time
WHERE	hugamja	Q-place
	(na) husei	(LOC) Q-side
WHY	va hu heddi	for Q-head
HOW	hufa	Q-FA > why

The Sranan form *sombady* in the earliest source clearly represents the English 'somebody'. This is certainly to be found in Surinam, in Saramaccan — in 1778 as *sombre*, and in the modern language as *sOmbE*. Whether the Sranan *suma*, etc., represents the same word is doubtful. The phonological development of this latter is perhaps more suggestive of a derivation from 'someone', although the former derivation cannot be completely ruled out, since function words not infrequently undergo drastic phonological treatment. The form *verwate* presumably derives from English 'for what'; it does not appear in later texts.

At this point it is relevant to raise the issue referred to by the reviewer whether it is possible to speak of a Q-word system at all since in earlier Sranan (and, as we have in fact illustrated above, in modern Saramaccan) it is possible to use the Q element freely with any noun or adjective. Note that from the earliest major source — Van Dyk — on, we get reduced forms only of the QSU elements, not of other nouns or adjectives. This is the case with 'fashion' and 'place'. Reduction of other elements like 'this' and 'something' is only evidenced in later sources. However, such early reduction in even a subset of what we would claim to be a system indicates the grammaticalization of such forms. Note also that there is also evidence of an early system of forms in *ini-*, *e/ibri-*, and *som-* (from,

respectively, English 'any', 'every', and 'some') combinable with a small group of forms, including most of the items occurring as (grammaticalized) QSU elements.

Thus question words in eighteenth-century Surinam creoles certainly do not support the gradualist view of creolization. Two things should be noted, however. First, at some points we have given examples from stable pidgins, alongside creoles, treating them as if they were equivalent. The data from the stable or extended pidgins cited parallel those of creoles in most respects. Thus, question words might simply not be the appropriate test case. We would need to look at question words in very rudimentary pidgins.

Second, we have noted with respect to (8) that question words in Sranan have undergone a number of drastic changes in the course of time, which may be indicative of the gradual development that Carden and Stewart refer to. It is necessary, however, to distinguish between drastic changes, which may be indicative of a somehow instable system, and developmental expansions. More complete data on other function words are needed here.

6. Conclusion

We can provide a provisional summing up of our conclusions so far. Superstrate effects are easily identified, although not often present in non-creole-continuum situations. Substrate items are rare — at least where the phonetic form of the substrate is preserved, and in many cases the substrate is different from the creole and pidgin forms. We are left with a large residue where we cannot always distinguish between semantic transparency and relexification from a substrate source.

Does the Haitian system represent a relexification of the Fon system, as claimed by Lefebvre (1986), or does it represent the operation of the language-bioprogram hypothesis, through a notion such as semantic transparency? We can represent this situation as follows, restricting ourselves to basilectal forms:

The above survey has of necessity been incomplete. It has yielded some preliminary answers, but it has lead to further questions as well. We may tentatively conclude that a large number of creoles have developed semantically transparent systems. Apart from Saramaccan and Berbice Dutch, which show lexical relics from Fon and Ijo, respectively, in their question-word systems, the clear evidence of African substratum influence is slight as of this moment. Before we can state a more definite set of conclusions, however, a number of issues need to be looked into. These include the following:

a. The relation between question-word formation and the formation of other systems of grammatical morphemes, such as reflexives and quantifiers. These resemble the compoundlike transparent question words of many creoles.

b. The differences between individual question words. Do 'core' elements such as 'who' tend in general to be formed differently from elements such as 'why'?

c. To what extent are the systems found simply the result of the only word-formation rules that these languages have available? To answer this question we must study the relation between the morphosyntactic processes involved in function-word formation and those involved in word formation in general. Are we dealing with compound formation, affixation, or phrase formation? Would the difference have syntactic implications? This very important set of questions can only be answered once we know more about the morphology of creoles.

d. The question-word systems of the Portuguese- and Spanish-based creoles, about which sufficient information is still lacking. If they are not transparent, and do not particularly resemble the related colonial languages, by what principles are they formed?

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Note

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