

Online Supplementary Materials¹ for

Daval-Markussen, Aymeric & Peter Bakker. 2012. Explorations in creole research with phylogenetic tools. Proceedings of the EACL 2012 Joint Workshop of LINGVIS & UNCLH, April 2012, Avignon, France, 89-97.

¹ The authors wish to thank Michel DeGraff for helpful comments and constructive suggestions concerning several shortcomings in the Supplementary Materials – however, all the results and interpretations remain our own.

The 62 structural features selected for the English-based creoles.

The numbers in parenthesis refer to the sentences in Hancock (1987).

Categories (S)

1. Completive aspect. (18). +: present; -: zero marking.
2. Deictics. (43). +: distinction between 'here' and 'there'; -: no distinction.
3. Double negation. (6). +: present; -: absent.
4. Existential copula. (6). +: present; -: absent.
5. Gender in 3rd personal pronoun feminine. (15). +: present; -: absent.
6. Infinitive marker. (19). +: present; -: absent.
7. Locative copula. (1). +: present; -: absent.
8. Nominal copula. (3). +: present; -: absent.
9. Progressive aspect. (9). +: present; -: absent.
10. Verbal copula. (6). +: present; -: absent.

Morphology (S)

19. Comparative. (16). +: expressed with the suffix -er; -: expressed differently.
20. Plural marking. (1). +: with suffix -s; -: no suffix -s.
21. Reduplication. (13). +: reduplicated 'along'; +: present; -: absent.
22. Reduplication. (5). +: reduplicated 'good' meaning 'all right'; -: 'all right' expressed differently.
23. Reduplication. (50). +: used to express attenuative meaning; -: not used to express attenuative meaning.

Nominal syntax (S)

24. Case. (9). feminine possessive pronoun object. +: accusative form; -: nominative nominative form.
25. Gender. (9). +: feminine possessive pronoun; -: no gender distinction.
26. Plural marking. (29). +: expressed with 'them/they'; -: expressed with 'the'. *o*: both a preposed ART and a postposed PL are present.

- 27. Possession. (2). +: bare possession; -: expressed with a preposition.
- 28. Possession. (12). +: expressed periphrastically ('for them'); -: expressed with a preposition or a pronoun.
- 29. Word order. (1). +: genitive-noun order; -: noun-genitive order.
- 30. Word order. (2). +: possessed-possessor order; -: possessor-possession order.
- 31. Word order. (29). +: preposed plural marker; -: postposed plural marker 'them'.

Sentential syntax (S)

- 54. Causative. (20). +: expressed with 'mek'; -: no causative constructions.
- 55. Complementizer. (33). +: derived from 'say'; -: not derived from 'say'.
- 56. Coordination. (30). +: realized with conjunction 'and'; -: not realized with conjunction 'and'.
- 57. Copula. (6). +: sentence-initial; -: other position.
- 58. Embedded relative clause. (42). +: presence; -: absence.
- 59. Gerund. (41). +: expressed by infinitive; -: not expressed by infinitive.
- 60. Infinitive marker in embedded clause. (20). +: present; -: absent.
- 61. Possession. (42). +: expressed with 'belong'; -: not expressed with 'belong'.
- 62. Predicate cleft. (44). +: presence; -: absence.
- 63. Q-word. (4). +: sentence-initial; -: other position.
- 64. Q-word. (4). +: synthetic ('where'); -: periphrastic.
- 65. Q-word. (16). +: synthetic ('whose'); -: periphrastic.
- 66. Reflexive. (47). +: expressed with 'self'; -: not expressed with 'self'.
- 67. Relative clause. (34). +: introduced by 'for'; -: not introduced by 'for'.
- 68. Relative cause. (40). +: subject-initial; -: not subject-initial.
- 69. Serial verb constructions. (45). +: presence; -: absence.
- 70. Subordination. (32). +: introduced by 'if'; -: not introduced by 'if'.
- 71. Temporal adverbial. (41). +: sentence-final; -: not sentence-final.
- 72. Verbal comparative. (16). +: expressed with 'pass'; -: not expressed with 'pass'.
- 73. Verbal comparative. (16). +: expressed with 'more'; -: not expressed with 'more'.

74. Word order. (4). +: copula-subject order in questions; -: subject-copula order in questions.

Tense, Mood and Aspect (S)

105. Completive aspect. (18). +: expressed preverbally; -: expressed postverbally.

106. Completive aspect. (18). +: expressed with a TMA marker or an adverbial; -: zero-marking.

107. Completive aspect. (26). +: expressed preverbally with a TMA marker; -: expressed postverbally with a TMA marker or an adverbial.

108. Conditional mood. (39). +: expressed with 'bin'; -: zero marking.

109. Future tense. (11). +: expressed preverbally; -: expressed with an adverbial only.

110. Habitual aspect. (8). +: expressed preverbally; -: zero marking.

111. Hortative mood. (17). +: expressed with 'for'; -: expressed otherwise.

112. Hortative mood. (17). +: expressed with 'must'; -: expressed otherwise.

113. Negated completive aspect. (27). +: TMA marker meaning 'done' present; -: absent.

114. Negated completive aspect. (27). +: TMA marker meaning 'never' present; -: absent.

115. Negated habitual aspect. (21). +: expressed with a TMA marker; -: 'no'-zero marking-V.

116. Negated habitual aspect marker. (21). +: synthetic (expressed with 'don't/ain't'); -: analytic (expressed with 'not'+TMA+V).

117. Negated past. (23). +: expressed with 'never'; -: expressed differently.

118. Negated progressive aspect. (22). +: expressed preverbally; -: not expressed preverbally.

119. Past action. (13). +: expressed with a TMA marker; -: unmarked.

120. Past conditional. (31). +: expressed with a form of 'should have'; -: expressed by a combination of TMA markers.

121. Progressive aspect. (6). +: expressed preverbally; -: not expressed preverbally.

122. Subjunctive mood. (49). +: expressed with indicative present; -: not expressed with indicative present.

Languages and abbreviations used in Section 2.

abbr.	language name
sar	Saramaccan
mat	Matawai
kwi	Kwinti
bon	Boni
par	Paramaccan
dju	Ndyuka
sra	Sranan
guy	Guyanese
cam	Cameroons Pidgin
nig	Nigerian Pidgin English
kri	Krio
bah	Bahamian
sea	Sea-Islands Creole
afr	Afro-Seminole
lib	Liberian
bla	Black English (AAVE)
pro	Providencia
bel	Belize
cay	Caymans
jam	Jamaican
StT	St. Thomas
StE	St. Eustatius
sab	Saba
StK	St. Kitts
ant	Antigua
StV	St. Vincent
car	Carriacou
gre	Grenada
tob	Tobago
bar	Bajan
tri	Trinidadian
nor	Norfolk Is.
haw	Hawaiian
eng	English

sar mat kwi bon par dju sra guy cam nig kri bah sea afr lib bla pro

Categories (S)

1. Completive aspect. (18). +: present	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
2. Deictics. (43). +: distinction betwe	I	I	I	I	I	I	I	I	I	I	I	I	o	o	I	I	I
3. Double negation. (6). +: present; -	o	o	o	o	I	o	I	I	I	I	I	I	I	I	I	I	o
4. Existential copula. (6). +: present;	I	I	I	I	I	I	I	I	I	I	I	o	I	I	o	o	o
5. Gender in 3 rd personal pronoun fem	o	o	o	o	o	o	o	I	o	o	o	o	o	o	I	I	o
6. Infinitive marker. (19). +: present;	o	o	o	o	o	o	I	I	I	I	o	I	I	I	I	I	o
7. Locative copula. (1). +: present; -:	I	I	I	I	o	I	I	I	I	I	o	I	I	I	o	o	o
8. Nominal copula. (3). +: present; -:	I	o	I	I	I	I	I	o	I	I	I	o	o	o	o	I	o
9. Progressive aspect. (9). +: present	I	I	I	I	I	I	I	o	I	I	I	o	I	I	I	o	o
10. Verbal copula. (6). +: present; -: a	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	o

Morphology (S)

19. Comparative. (16). +: expressed v	o	o	o	o	o	o	I	I	o	o	o	o	o	o	o	I	I
20. Plural marking. (1). +: with suffix	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
21. Reduplication. (13). +: reduplicate	I	I	o	I	o	I	o	o	o	o	o	o	o	o	o	o	o
22. Reduplication. (5). +: reduplicate	I	I	o	o	o	I	o	o	o	o	o	o	o	o	o	o	o
23. Reduplication. (50). +: used to ex	I	I	I	I	I	I	o	o	I	I	o	I	I	o	o	o	o

Nominal syntax (S)

24. Case. (9). feminine possessive pro	o	o	o	o	o	o	o	I	o	I	I	o	o	I	I	I	
25. Gender. (9). +: feminine possessi	o	o	o	o	o	o	o	o	o	o	o	o	o	o	I	I	o
26. Plural marking. (29). +: expresse	I	I	I	I	I	I	I	I	I	I	I	o	o	o	I	I	-
27. Possession. (2). +: bare possessio	I	I	I	I	I	o	I	I	o	o	I	I	I	I	I	I	o
28. Possession. (12). +: expressed per	I	I	I	o	o	I	o	o	o	o	o	o	o	o	o	o	o
29. Word order. (1). +: genitive-noun	o	o	I	o	I	o	I	I	I	I	I	I	I	I	I	I	I
30. Word order. (2). +: possessed-po	o	o	o	o	o	I	o	o	o	o	o	o	o	o	o	o	o
31. Word order. (29). +: preposed plu	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	o

Sentential syntax (S)

54. Causative. (20). +: expressed with	o	o	o	o	o	o	o	I	I	I	o	o	o	o	o	o	o
55. Complementizer. (33). +: derived	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
56. Coordination. (30). +: realized w	o	I	I	o	I	o	I	o	o	o	o	o	o	o	o	o	o
57. Copula. (6). +: sentence-initial; -:	o	o	o	o	o	o	o	o	o	o	o	I	o	o	o	I	o
58. Embedded relative clause. (42). +	I	I	I	I	I	I	I	o	I	I	o	o	I	I	o	o	I
59. Gerund. (41). +: expressed by infi	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	o	I
60. Infinitive marker in embedded cl	o	o	o	I	o	o	o	o	o	o	o	o	o	o	I	I	o
61. Possession. (42). +: expressed with	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
62. Predicate cleft. (44). +: presence;	I	I	I	I	I	I	I	I	I	I	I	o	o	o	o	o	I
63. Q-word. (4). +: sentence-initial; -:	I	I	I	I	I	I	I	o	o	o	o	I	I	o	I	I	I
64. Q-word. (4). +: synthetic ('where	I	I	I	I	I	I	o	o	o	o	I	o	o	I	I	o	o
65. Q-word. (16). +: synthetic ('whose	o	o	o	o	o	o	o	o	o	o	o	o	o	o	I	I	o
66. Reflexive. (47). +: expressed with	I	I	I	I	I	I	o	I	I	I	o	o	o	I	o	o	o
67. Relative clause. (34). +: introduce	I	o	I	o	I	I	o	o	o	o	o	o	o	o	o	o	o
68. Relative cause. (40). +: subject-ir	I	I	I	I	I	I	o	I	I	I	o	I	I	o	o	o	o
69. Serial verb constructions. (45). +	I	I	I	I	I	I	I	I	I	I	o	o	o	o	o	o	I
70. Subordination. (32). +: introduce	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	o	o
71. Temporal adverbial. (41). +: sente	o	I	I	I	I	I	I	I	o	I	o	I	o	o	o	o	I
72. Verbal comparative. (16). +: expre	I	I	I	I	I	I	I	o	o	o	I	o	I	o	o	o	o
73. Verbal comparative. (16). +: expre	o	o	o	o	o	o	o	I	I	I	o	I	o	I	o	o	o
74. Word order. (4). +: copula-subje	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o

Tense mood aspect (S)

105. Completive aspect. (18). +: expre	o	o	o	o	o	o	o	I	I	I	I	I	I	I	I	I	o
106. Completive aspect. (18). +: expre	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
107. Completive aspect. (26). +: expre	o	o	o	o	o	o	o	I	I	I	I	I	I	I	I	I	I
108. Conditional mood. (39). +: expre	I	I	I	I	I	I	I	o	I	I	I	o	o	o	o	o	o
109. Future tense. (11). +: expressed p	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	o
110. Habitual aspect. (8). +: expresse	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	o
111. Hortative mood. (17). +: expresse	o	o	o	o	o	o	o	I	I	I	I	o	I	I	o	o	I
112. Hortative mood. (17). +: expresse	I	I	I	I	I	I	I	o	o	o	o	o	o	o	o	o	o
113. Negated completive aspect. (27).	I	o	I	I	o	I	I	I	o	o	o	o	o	o	o	o	o
114. Negated completive aspect. (27).	o	o	o	o	o	o	o	o	I	I	I	o	o	o	I	o	I
115. Negated habitual aspect. (21). +:	I	I	I	I	I	I	I	I	I	I	o	I	I	I	I	I	I
116. Negated habitual aspect marker.	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	I	o
117. Negated past. (23). +: expresse	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	I
118. Negated progressive aspect. (22)	I	I	I	I	I	I	I	I	I	I	o	I	I	o	o	o	o
119. Past action. (13). +: expressed wi	o	o	I	o	o	o	o	o	I	I	I	I	o	o	o	o	I
120. Past conditional. (31). +: expres	o	o	o	o	o	o	o	o	o	o	o	I	o	o	I	I	o
121. Progressive aspect. (6). +: expre	I	I	I	I	I	I	I	I	I	I	I	o	I	I	o	o	o
122. Subjunctive mood. (49). +: expre	I	I	I	I	I	I	o	o	o	o	o	I	o	o	o	o	I

The 97 structural features selected in the Comparative Creole Syntax volume (Holm & Patrick 2007)

1. Unmarked verbs

In the Atlantic Creoles, verbs generally indicate tense and aspect not with inflections but rather with preverbal (in some cases postverbal) markers. The tense reference of verbs without such markers, §1, is normally to the time-reference point of the discourse – usually present or past – which is either understood or established at the outset.

Whether the meaning of the verb is a state (stative), §1, 1-2, or an action (non-stative), §1, 3-4, seems to be often related to the likelihood of its indicating the past.

- (1) 1.1 Statives with non-past reference
- (2) 1.2 Statives with past reference
- (3) 1.3 Non-statives with non-past reference
- (4) 1.4 Non-statives with past reference

2. Anterior (or past) tense

The marker for the anterior (and in some cases past) tense refers to something that took place before the time-reference point of the discourse, §2. Again, whether the verb indicates a state, §2.1, or an action, §2.2, seems related to the likelihood of its indicating the same time-reference point of the discourse, or a time before that. As can be seen from examples in the following chapters, sometimes the anterior marker can be used in a construction indicating the counterfactual or something that did not happen, corresponding in meaning to the English construction “We would have gone”, §2.3. Such cases may overlap with conditionals, §6.2. In some Atlantic Creoles adjectives, §2.4, and locative phrases referring to place, §2.5, act as a predicate taking preverbal markers such as anterior.

- (5) 2.1 Statives with past reference
- (6) 2.2 Non-statives with (past-before-) past reference
- (7) 2.3 Anterior (or past) = counterfactual
- (8) 2.4 Anterior (or past) with adjective
- (9) 2.5 Anterior (or past) with locative

3. Progressive aspect

The marker of progressive aspect indicates that an action is going on; §3.1 reports whether such a marker exists. Sometimes it can indicate future, e.g., “I’m leaving tomorrow”, §3.2. In some Creoles the anterior marker can precede the progressive marker to indicate the past progressive, e.g., “I was leaving”, §3.3. Sometimes, the progressive marker can be used before an adjectival predicate to indicate that a state is inchoative, or just coming into being, e.g. “It’s getting cold”, §3.4.

- (10) 3.1 Indicating progressive
- (11) 3.2 Indicating future
- (12) 3.3 Anterior plus progressive
- (13) 3.4 Progressive with adjective = inchoative

4. Habitual marker

Markers of habitual aspect indicate that an action recurs, §4. Sometimes this is indicated by the absence of any aspect marker, §4.1, sometimes by the same form as the progressive marker, §4.2, and sometimes by a marker which is only used to

indicate habitual aspect, §4.3. Such markers can often be preceded by the anterior tense marker to indicate a past habit, e.g., “He used to go there”, §4.4.

- (14) 4.1 Zero marker for habitual
- (15) 4.2 Progressive marker for habitual
- (16) 4.3 Marker for habitual only
- (17) 4.4 Anterior plus habitual

5. Completive aspect

The marker of completive aspect shows that an action has been completed, §5. In some Creoles such markers can only occur without any other markers – either before or after the verb, §5.1, or possibly with an adjectival predicate, §5.2 – whereas in other Creoles the completive marker can co-occur with the anterior or other preverbal markers, §5.3.

- (18) 5.1 Completive only (before/after V)
- (19) 5.2 Completive plus adjective
- (20) 5.3 Anterior (or other preverbal markers) plus completive

6. Irrealis mode

The marker of irrealis mode indicates that a state or action is not (yet) a part of reality, §6, i.e. it refers to the future – in some Creoles taking the same form as the progressive marker, §6.1 – or (used after the anterior marker) it refers to the conditional, e.g., “We would go / would have gone”, §6.2. This combination can sometimes also indicate the future in the past, e.g., “We said that we would go”, §6.3, or the future perfect, e.g., “We will have gone”, §6.4.

- (21) 6.1 Future (= progressive marker)
- (22) 6.2 Anterior plus irrealis = conditional
- (23) 6.3 Anterior plus irrealis = future in the past
- (24) 6.4 Anterior plus irrealis = future perfect

7. Other combinations of verbal markers

Besides the above combinations of verbal markers, some Creoles also feature the co-occurrence of irrealis and progressive markers to indicate continuous future, e.g., “We will be going”, §7.1. Some can precede the latter with the anterior marker to indicate a continuous perfect conditional, e.g., “We would have been going”, §7.2, while some have yet other combinations, §7.3, including modals.

- (25) 7.1 Irrealis plus progressive
- (26) 7.2 Anterior plus irrealis plus progressive
- (27) 7.3 Other auxiliary-like elements

8. Complementizers

Some Creoles have complementizers that mark infinitives, as in English: “We want to go”, §8, while some do not, §8.1. Sometimes the word meaning ‘for’ can serve this function, §8.2, while in some Creoles this word can act like a modal indicating an arranged future or an obligation, e.g., “We are to go”, §8.3. Sometimes this word acts as a subordinator introducing a tensed clause, like English so that: “We did it so that we could go”, §8.4. Many Creoles have a complementizer introducing clauses which is derived from the lexifier’s word for the subordinator that, e.g., “It’s important that we go”, §8.5. Some Creoles have a distinct word to introduce clauses after verbs of saying,

thinking, or feeling, e.g., “I know that we’re going”, §8.6. Some Creoles allow omission of subordinators, §8.7.

- (28) 8.1 Zero infinitive marker
- (29) 8.2 ‘For’ as infinitive marker
- (30) 8.3 ‘For’ as a (quasi-) modal
- (31) 8.4 ‘For’ introducing a tensed clause
- (32) 8.5 Subordinator from superstrate ‘that’
- (33) 8.6 Distinct subordinator after verb of speaking
- (34) 8.7 Zero subordinator

9. Dependent clauses

Many Creoles have subordinate clauses that are not part of a larger matrix clause, §9.1, or that function within such a clause as a noun phrase, §9.2. Most also have relative clauses in which the relativizer or relative pronoun functions as the subject, §9.3, the direct object, §9.4, or the object of a preposition, §9.5. Some allow certain relativizers or relative pronouns to be omitted, §9.6.

- (35) 9.1 Subordinate clauses (non-embedded)
- (36) 9.2 Subordinate clauses (embedded)
- (37) 9.3 Relative clauses (relative pronoun = subject)
- (38) 9.4 Relative clauses (relative pronoun = direct object)
- (39) 9.5 Relative clauses (relative pronoun = object of a preposition)
- (40) 9.6 Relative clauses (zero relative pronoun)

10. Negation

Many Creoles have a single particle next to the verb or verb phrase to negate it, §10.1, but some also have another negator at the end of the utterance, §10.2. Some Creoles use negative forms of indefinite pronouns and quantifiers after a negated verb, e.g., “We don’t have none”, §10.3.

- (41) 10.1 Single negation (verbal)
- (42) 10.2 Discontinuous double negation
- (43) 10.3 Negative concord

11. Passive

Not all Creoles have a passive construction parallel to that in their lexifier, e.g., “That house was built last year”, §11.1; many instead use an adjective equivalent, e.g., “They built the house last year”, §11.2.

- (44) 11.1 Passive construction
- (45) 11.2 Passive equivalent

12. Adjectives: verbs?

In some basilectal Creoles certain non-verbal predicates behave syntactically like verbs, §12: adjectives may take preverbal markers, §12.1, as may nouns, §12.2, and locative phrases, §12.3. For emphasis, some Atlantic Creoles may have predicate clefting, in which a predicate that is either an adjective, §12.4, or a verb, §12.5, moves to the front of the sentence after a highlighter, §13.5, and is followed by the original sentence. Other verbal behavior of adjectives includes comparison as a verb in a serial verb construction, §14, with the word equivalent to ‘pass’, §12.6, as opposed to comparison as an adjective as in the lexifier language, §12.7.

- (46) 12.1 Preverbal markers before adjectives
- (47) 12.2 Preverbal markers before nouns
- (48) 12.3 Preverbal markers before locatives
- (49) 12.4 Predicate clefting: adjectives or adjectival verbs
- (50) 12.5 Predicate clefting: other verbs
- (51) 12.6 Comparison with 'pass'
- (52) 12.7 Comparison as in superstrate

13. The copula

The term 'copula' is used loosely to correspond to most uses of English *be*, §13. Many Atlantic Creoles have different words for the copula before predicate nouns, e.g., "She is my sister", §13.1; before locative expressions, e.g., "She is in Kingston", §13.2; and before adjectives, e.g., "She is nice", §13.3. Some Creoles have highlighters, particles that appear before other words to draw attention to them; these can be used before interrogatives, §13.4, or in other constructions, §13.5. The existential meaning of 'There is' can be conveyed with the equivalent "(It) have", §13.6.

- (53) 13.1 Equative copula
- (54) 13.2 Locative copula (with expression of place)
- (55) 13.3 Zero copula with adjective
- (56) 13.4 Highlighter with question words
- (57) 13.5 Highlighter with other structures
- (58) 13.6 Existential ('have' = 'there is')

14. Serial verbs

Some Creoles have constructions consisting of two or more verbs with the same subject but not linked as they might be in a European language, i.e., with a conjunction or an infinitive marker, §14. In some cases one of the verbs means 'go' and indicates that the action of the verb takes place in a direction away from the speaker, §14.1, or means 'come' indicating motion towards, §14.2. Another such construction uses the verb meaning 'give' to indicate to whom, or for whom, an action was done, §14.3. Another uses the verb meaning 'say' to introduce a clause after a verb of speaking or thinking, §14.4. Another uses the verb 'pass' to indicate 'more than' after verbs, including adjectival verbs in a comparison, §14.5. In some Creoles the verbs in such constructions can number three, §14.6, or four or even more, §14.7.

- (59) 14.1 Directional with 'go'
- (60) 14.2 Directional with 'come'
- (61) 14.3 Serial 'give' meaning 'to, for'
- (62) 14.4 Serial 'say' meaning 'that'
- (63) 14.5 Serial 'pass' meaning 'more than'
- (64) 14.6 Three serial verb constructions
- (65) 14.7 Serial verb constructions with 4 or more verbs

15. Noun phrase

In the noun phrase, many Creoles use nouns without a determiner to refer to the whole category, §15.1. Some Creoles have an indefinite article, §15.2, or a definite article derived from a demonstrative determiner in the lexifier language, §15.3. Some Creoles use the personal pronoun meaning 'they' after nouns to indicate plurality, §15.4, and some use this plural marker after nouns referring to a person to indicate that

person's usual associates, §15.5. Most Creoles have demonstrative determiners, §15.6, but in a few they occur at the end of a noun phrase along with the definite article or plural marker, §15.7, even when the noun phrase includes a relative clause, §15.8. In some Creoles adjectives precede nouns, §15.9, while in others they follow them, §15.10. Creoles almost never have gender agreement between nouns and their modifiers, §15.11.

- (66) 15.1 Bare nouns (generic, definite)
- (67) 15.2 Indefinite article
- (68) 15.3 Definite article
- (69) 15.4 Plural marker (= 'they')
- (70) 15.5 Personal noun plus plural marker
- (71) 15.6 Demonstrative
- (72) 15.7 Demonstrative plus definite or plural
- (73) 15.8 Relative clause followed by definite or plural marker
- (74) 15.9 Prenominal adjective
- (75) 15.10 Postnominal adjective
- (76) 15.11 Gender agreement

16. Possession

Some Creoles express possession between nouns without any inflections: the noun that is possessor simply precedes the noun that is possessed, §16.1. Other Creoles use a preposition meaning 'of' (which may be optional) after the noun that is possessed, e.g., "the house of Maria", §16.2. Some Creoles indicate possession with a possessive adjective or determiner after the possessor, e.g., "Purchas his pilgrimage", §16.3. Creoles may have possessive adjectives or determiners like "my" occurring before nouns, §16.4, or possessive pronouns of a distinct form like "mine", §16.5. In some Creoles possessive adjectives may be replaced by possessive pronouns for emphasis, §16.6.

- (77) 16.1 Nouns: juxtaposition [possessor + possessed]
- (78) 16.2 Nouns: preposition [possessed (of) possessor]
- (79) 16.3 Nouns: possessive adjective [possessor HIS possessed]
- (80) 16.4 Possessive adjectives: prenominal
- (81) 16.5 Possessive pronouns: distinct
- (82) 16.6 Possessive pronouns as emphatic possessive adjective

17. Pronouns: case distinctions

Creole pronouns may indicate distinctions of case (like subject "he", object "him", possessive "his") less frequently than the pronouns in their lexifier languages do. This section surveys such distinctions in the pronouns meaning "I" in §17.1, "you [singular]" in §17.2, "he / she / it" in §17.3, "we" in §17.4, "you [plural]" in §17.5, and "they" in §17.6. Some Creoles have reflexive pronouns that differ from those in their lexifier languages, e.g., "He hurt his body" instead of "He hurt himself", §17.7. In some Creoles question words like "where?" consist of two morphemes with compositional or semantically transparent meaning, e.g. "What place?", §17.8. Creoles have relativizers or relative pronouns, but they may differ from those of their lexifiers, §17.9.

- (83) 17.1 Personal pronouns: first person singular
- (84) 17.2 Personal pronouns: second person singular
- (85) 17.3 Personal pronouns: third person singular

- (86) 17.4 Personal pronouns: first person plural
- (87) 17.5 Personal pronouns: second person plural
- (88) 17.6 Personal pronouns: third person plural
- (89) 17.7 Reflexive pronouns: distinct forms
- (90) 17.8 Interrogative pronouns: some bimorphemic
- (91) 17.9 Relative pronouns

18. Coordinating conjunctions

Some Creoles have different words for 'and' when it joins whole sentences, §18.1, as opposed to parts of sentences, §18.2.

- (92) 18.1 'And' joining sentences
- (93) 18.2 'And' joining sentence parts: different

19. Prepositions

Some Creoles have a preposition (or a postposition after a noun) with general meaning of location, e.g., 'in', 'on', 'at', 'to', or even 'out of', §19.1. Some require no prepositions before places after verbs of motion, e.g., "Matilda run __ Venezuela", §19.2.

- (94) 19.1 General locative preposition (or postposition)
- (95) 19.2 Zero preposition with motion verbs plus place

20. Miscellaneous

Most Creoles have no inversion of the subject and the verb (or auxiliary) to indicate a question, §20.1. A number use "-o" at the end of a sentence to signal heightened relevance or connectedness between the speaker and the person spoken to, §20.2.

- (96) 20.1 Word order: questions SVO
- (97) 20.2 Sentence-final -o

The CCS languages encoded with 97 binary features

	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	4.1	4.2	4.3	4.4
cANG	1	1	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1
cBER	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
cCAP	1	1	1	1	1	1	1	0	0	1	1	1	0	1	0	0	1
cDOM	1	1	1	0	1	1	1	1	1	0	1	0	1	1	1	0	1
cGUI	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1
cHAI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1
cJAM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
cKOR	1	1	0	0	1	1	1	0	0	1	1	1	0	0	0	1	1
cKRI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
cNAG	1	1	1	1	1	0	1	0	1	1	0	1	0	1	1	1	1
cNDY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
cNEG	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	0	1
cNUB	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1
cPAL	1	1	1	1	1	1	1	0	1	1	0	1	0	1	0	1	1
cPAP	1	0	0	0	1	1	1	0	0	1	1	1	0	0	1	1	1
cSEY	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0
cTOK	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1
cZAM	1	1	1	1	1	1	0	1	1	1	1	0	0	1	1	0	0
Laeg	0	0	0	1	0	1	0	0	1	1	0	1	0	0	1	0	1
Lass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ldut	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Leng	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lfre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lpor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lspa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sakn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sao	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sara	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sbam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sceb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sfon	1	0	1	1	1	1	1	?	?	1	0	1	?	0	0	1	?
Sijo	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Skik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Skim	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Smak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Smal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Smdk	1	1	1	1	1	1	0	0	0	1	1	0	1	0	0	1	0
Smhi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sswa	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Stla	1	1	0	1	1	1	1	1	0	0	0	0	1	1	0	0	0
Stne	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0
Swlf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Syor	1	0	0	1	1	1	?	?	?	1	0	0	?	0	0	0	0
Xain	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Xbrh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xind	0	0	0	0	0	1	?	1	1	1	0	0	?	0	0	1	1
Xkeh	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Xmin	0	0	0	0	0	0	0	0	?	0	0	0	0	0	1	0	0
Xmnd	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Xprh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xyko	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

15.7	15.8	15.9	15.10	15.11	16.1	16.2	16.3	16.4	16.5	16.6	17.1	17.2	17.3	17.4	17.5	17.6	17.7
I	O	I	I	O	O	I	O	O	I	O	O	O	O	O	O	O	I
I	O	I	O	O	I	O	I	I	I	I	O	O	I	O	O	O	I
O	O	I	I	I	O	I	O	I	I	?	I	I	I	I	I	I	I
O	I	I	I	O	O	I	O	O	O	O	O	O	O	O	O	O	I
O	O	I	I	O	O	I	O	I	I	O	I	I	I	I	I	I	I
I	I	I	I	I	O	I	O	O	O	O	O	O	O	O	O	O	I
O	O	I	O	O	I	I	O	I	I	I	O	O	O	O	O	O	I
O	O	I	I	O	O	O	I	I	O	O	I	I	I	I	I	I	O
I	O	I	O	O	I	O	I	I	I	I	I	O	I	O	I	O	I
I	O	I	I	I	I	O	O	O	I	O	I	I	I	I	I	I	O
I	O	I	O	O	I	I	O	I	O	I	O	O	I	O	O	O	I
O	O	I	O	O	I	I	I	I	I	I	O	O	I	O	O	O	I
I	I	I	I	O	O	I	O	O	I	O	O	O	O	O	O	O	O
I	O	I	I	I	O	I	O	O	I	O	I	O	O	O	O	O	O
I	O	I	I	O	O	I	I	I	I	I	O	I	I	O	O	O	I
I	O	I	I	O	O	I	I	I	I	I	I	O	I	O	O	O	I
I	I	I	I	O	O	I	O	O	O	O	O	O	O	O	O	O	I
O	O	I	I	O	O	I	O	I	I	O	I	I	I	I	I	I	I
I	O	O	I	I	O	I	O	O	O	O	I	I	I	I	I	I	I
?	?	?	?	I	?	?	?	?	?	O	I	I	I	I	I	I	O
O	O	I	O	I	O	I	I	I	I	O	I	I	I	I	O	I	O
O	O	I	O	O	O	O	O	I	O	O	I	O	I	I	O	I	O
O	O	I	I	I	O	I	O	I	O	O	I	I	I	I	I	I	O
O	O	I	I	I	O	I	O	I	O	O	I	I	I	I	I	I	O
O	?	I	O	O	I	O	O	I	I	?	O	O	O	O	O	O	-
O	O	I	I	O	I	O	O	I	I	?	I	I	I	I	I	I	?
?	?	O	I	O	I	O	O	I	O	?	O	O	O	O	O	O	-
O	?	O	I	O	O	O	O	I	O	?	I	I	I	I	I	I	?
?	?	I	O	I	I	I	O	?	?	?	I	O	O	I	O	O	?
?	?	O	I	O	O	I	O	O	O	I	O	O	O	O	O	O	?
O	O	O	I	O	O	I	O	O	O	O	O	O	I	O	I	O	O
O	?	I	I	O	O	I	O	I	I	?	I	I	I	I	I	I	?
?	?	O	I	O	O	O	I	I	?	?	O	O	O	O	O	O	O
O	O	I	O	I	O	O	O	I	?	?	I	I	I	I	I	I	O
?	?	O	I	O	O	I	O	O	O	?	I	I	I	I	I	I	?
I	O	I	I	O	O	I	O	O	O	O	O	O	I	O	O	O	O
O	?	O	I	O	O	I	O	I	O	I	I	I	I	I	I	I	O
O	O	O	I	O	O	I	O	I	O	O	I	I	I	I	I	I	I
?	?	O	I	O	I	O	I	I	O	I	I	I	I	I	I	O	?
O	O	I	O	O	O	O	I	O	O	O	I	O	O	I	O	O	O
?	O	I	O	O	O	O	O	I	I	O	O	O	O	I	I	I	I
O	I	O	I	O	I	O	O	O	O	O	O	O	O	O	O	O	I
I	?	O	I	O	I	O	O	I	O	O	I	O	I	I	O	I	I
I	?	O	I	O	I	O	I	O	I	?	I	I	I	I	I	I	I
I	I	I	O	O	O	O	I	O	O	?	O	O	O	O	O	O	I
O	O	O	I	O	O	O	I	I	O	O	O	O	O	O	O	O	O
O	O	I	O	O	I	O	O	I	O	O	I	I	I	I	I	I	O

17.8 17.9 18.1 18.2 19.1 19.2 20.1 20.2

I	I	I	I	I	I	I	I
I	O	I	I	I	I	I	O
I	I	I	I	I	I	I	O
I	I	I	O	I	I	I	I
I	I	I	I	I	I	I	O
I	O	I	I	I	I	I	I
I	I	I	O	I	I	I	I
I	I	I	I	I	I	I	O
I	I	I	I	I	I	I	I
I	I	I	O	I	O	O	O
I	I	O	I	I	I	I	I
O	I	I	I	I	O	I	O
O	O	I	O	O	O	I	O
I	I	I	O	I	O	I	O
I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	O
I	I	I	O	I	I	I	I
I	I	I	O	I	O	I	O
I	I	I	O	O	I	I	O
O	I	I	I	O	?	?	?
O	I	I	O	O	O	O	O
O	I	I	O	O	O	O	O
O	I	I	O	O	O	O	O
I	I	I	O	O	O	O	O
I	I	I	O	O	O	O	O
O	O	I	I	O	O	I	?
I	I	O	I	O	O	I	O
I	I	I	I	O	I	I	O
I	O	I	O	O	O	I	I
O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O
I	I	I	O	O	O	I	O
O	I	O	I	I	O	I	O
O	I	O	I	O	I	I	O
O	O	O	I	O	I	O	I
I	I	I	O	O	O	O	O
O	?	O	O	O	O	O	O

The reduced set of 18 CCS features

CCS feature	Feature description in Holm & Patrick 2007	Shared by % CCS creoles
1.1 to 1.4	Statives versus non-statives	n/a
2.1 to 7.3	Tense and aspect expressed by a combination of preverbal TMA particles	n/a
8.7	Zero subordinator	100%
9.1	Embedded subordinate clauses	100%
9.2	Non-embedded subordinate clauses	100%
10.1	Single negation (verbal)	94.44%
11.2	Passive equivalent	100%
12.7	Comparison as in superstrate	77.78%
13.6	Existential ('have' = 'there is')	94.44%
14.1	Directional with 'go'	83.33%
15.1	Bare nouns (generic, definite)	100%
15.2	Indefinite article	100%
15.9	Prenominal adjective	100%
16.2	Nouns: preposition [possessed (of) possessor]	83.33%
17.8	Interrogative pronouns: some bimorphemic	88.89%
18.1	'And' joining sentences	94.44%
19.1	General locative preposition (or postposition)	94.44%
20.1	Word order: questions SVO	94.44%

The matching CCS and WALS features with the values and the binary equivalents.

CCS feature	Description	WALS feature	Description	Values	Binary equivalence
2	TMA markers	69	Position of Tense-Aspect affixes	1: Tense-aspect prefixes 2: Tense-aspect affixes 3: Tense-aspect tone 4: Mixed type 5: No tense-aspect inflection	1, 2, 3, 4 = 0 5 = 1
10.1	Single verbal negation	112	Negative morphemes	1: Negative affix 2: Negative particle 3: Negative auxiliary verb 4: Negative word 5: Negative word or affix 6: Double negation	1, 3, 4, 5, 6 = 0 2 = 1
11.2	Passive equivalent	107	Passive constructions	1: Present 2: Absent	2 = 0 1 = 1
12.7	Comparison as in superstrate	121	Comparative constructions	1: Locational 2: Exceed 3: Conjoined 4: Particle	1, 2, 3 = 0 4 = 1
13.6	'have' = 'there is'	117	Predicative possession	1: Locational 2: Genitive 3: Topic 4: Conjunctional 5: 'Have'	5 = 0 1, 2, 3, 4 = 1
15.1	Bare nouns	37	Definite articles	1: Definite ≠ demonstrative 2: Definite = demonstrative 3: Definite affix 4: No definite, but indefinite article 5: No definite, no indefinite article	1, 2, 3 = 0 4, 5 = 1
15.2	Indefinite article	38	Indefinite articles	1: Indefinite ≠ 'one' 2: Indefinite = 'one' 3: Indefinite affix 4: No indefinite, but definite article 5: No definite or indefinite article	3, 4, 5 = 0 1, 2 = 1
15.9	Prenominal adjective	87	Order of Adjective and Noun	1: Adjective-Noun 2: Noun-Adjective 3: No dominant order 4: Only internally-headed relative clauses	2, 3, 4 = 0 1 = 1
16.2	Noun possession	86	Order of Genitive and Noun	1: Genitive-Noun 2: Noun-Genitive 3: No dominant order	1 = 0 2 = 1 3 = -
18.1	'And' joining sentences	63	Noun phrase conjunction	1: 'And' ≠ 'with' 2: 'And' = 'with'	2 = 0 1 = 1

The CCS languages with r8 binary features

	1	2	8.7	9.1	9.2	10.1	11.2	12.7	13.6	14.1	15.1	15.2	15.9	16.2	17.8	18.1	19.1	20.1
cANG	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
cBER	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1
cCAP	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
cDOM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
cGUI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
cHAI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
cJAM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
cKOR	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
cKRI	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1
cNAG	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0
cNDY	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1
cNEG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1
cNUB	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	0	1
cPAL	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
cPAP	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
cSEY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
cTOK	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
cZAM	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1
Laeg	1	0	1	?	1	1	1	?	0	1	0	0	0	1	1	1	0	1
Lass	0	0	?	1	1	1	1	0	?	?	1	0	?	?	0	1	0	?
Ldut	0	0	0	0	1	1	0	1	0	0	0	1	1	1	0	1	0	0
Leng	0	0	0	0	1	1	1	1	0	0	1	0	1	0	0	1	0	0
Lfre	0	0	0	0	1	0	0	1	1	0	0	1	1	1	0	1	0	0
Lpor	0	0	0	0	1	1	0	1	1	0	0	1	1	1	1	1	0	0
Lspa	0	0	0	0	1	1	0	1	0	0	0	1	1	1	1	1	0	0
Sakn	0	0	?	?	?	1	0	1	?	1	1	0	1	0	0	1	0	1
Sao	0	0	0	1	1	0	0	1	0	0	0	1	1	0	1	0	0	0
Sara	0	0	0	0	1	1	0	0	?	0	0	1	1	0	1	1	0	1
Sbam	0	0	?	?	?	1	0	?	?	0	1	0	0	0	0	?	?	1
Scar	0	0	1	1	0	1	1	?	0	0	1	0	0	0	1	1	0	0
Seeb	0	0	1	1	0	1	0	1	1	0	0	0	1	1	1	1	?	0
Sfon	1	1	1	0	1	1	0	0	0	0	1	0	0	1	1	0	0	0
Sijo	1	1	?	1	1	1	?	?	?	?	1	0	1	1	1	1	?	0
Skik	0	0	?	1	0	0	0	0	0	?	1	0	0	1	0	?	0	1
Skim	0	0	?	?	?	1	0	1	0	?	1	1	0	1	1	0	0	?
Smak	0	0	1	1	0	1	1	0	0	0	1	0	0	1	1	1	0	0
Smal	0	0	1	0	1	1	0	1	?	1	1	0	1	1	0	1	1	0
Smdk	1	1	0	1	1	1	1	0	?	?	1	0	0	0	0	1	0	1
Smhi	0	0	0	1	1	1	0	0	0	?	1	1	1	0	0	1	0	0
Sswa	1	0	?	0	1	1	0	1	?	?	1	0	0	1	1	0	1	?
Stla	1	1	0	1	0	1	1	?	0	0	0	1	1	1	1	1	1	0
Stne	1	1	1	1	0	1	1	1	0	1	0	1	0	1	1	1	0	1
Swlf	0	0	0	0	1	1	0	0	1	1	1	1	0	1	1	1	0	1
Syor	1	1	?	?	?	1	?	0	0	1	1	1	0	0	1	1	0	1
Xain	0	0	0	1	1	1	1	0	0	1	0	0	1	0	0	0	0	0
Xbrh	0	0	1	1	1	0	0	?	1	0	1	1	1	0	0	0	0	0
Xind	0	1	?	1	1	1	0	0	1	0	1	0	0	0	1	1	0	1
Xkeh	1	0	1	0	1	0	1	0	0	1	?	0	0	0	0	0	1	1
Xmin	0	0	0	1	1	0	1	0	0	1	?	0	0	0	0	0	0	1
Xmnd	1	0	1	1	1	0	0	?	1	1	1	0	1	0	0	0	0	0
Xprh	0	0	1	1	1	1	1	0	?	0	1	0	0	0	1	1	0	0
Xyko	0	0	0	0	1	1	1	0	0	0	1	0	1	0	0	0	0	0

The WALS languages included in Section 4.3

abbr.	name	family	38A	63A	69A	86A	87A	107A	112A	117A	121A
Laeg	Arabic (Egyptian)	Afro-Asiatic	4	?	4	?	?	?	2	1	?
Xamh	Amharic	Afro-Asiatic	2	1	4	1	1	1	6	1	1
Xcop	Coptic	Afro-Asiatic	1	?	5	?	?	?	1	1	?
Xhau	Hausa	Afro-Asiatic	1	2	5	2	1	1	2	4	2
Xheb	Hebrew (Modern)	Afro-Asiatic	2	1	4	2	2	1	2	1	1
Xmrg	Margi	Afro-Asiatic	4	?	4	?	2	?	2	4	2
Xmup	Mupun	Afro-Asiatic	1	?	5	?	?	?	4	4	?
Xorh	Oromo (Harar)	Afro-Asiatic	5	?	2	?	?	?	6	5	?
Xsom	Somali	Afro-Asiatic	4	?	2	?	?	?	2	4	?
Xtas	Tashlhiyt	Afro-Asiatic	3	?	1	?	?	?	5	1	?
Xevn	Even	Altaic	5	?	2	?	1	?	6	2	1
Xkha	Khalkha	Altaic	5	1	2	1	1	1	1	1	1
Xtur	Turkish	Altaic	2	1	2	1	1	1	1	2	1
Xpau	Paumari	Arauan	5	?	2	?	2	?	5	4	3
Xmap	Mapudungun	Araucanian	4	1	2	1	1	1	1	5	1
Xkay	Kayardild	Australian	2	?	2	?	?	?	1	4	?
Xngl	Ngalakan	Australian	5	?	2	?	?	?	1	4	?
Xtiw	Tiwi	Australian	5	?	1	?	?	?	2	3	?
Xyid	Yidiny	Australian	5	?	2	?	?	?	2	4	?
Xkhs	Khasi	Austro-Asiatic	5	?	5	?	?	?	4	3	?
Sind	Indonesian	Austronesian	4	?	2	?	?	?	4	3	?
Xklv	Kilivila	Austronesian	5	?	1	?	?	?	2	3	?
Xlon	Loniu	Austronesian	2	?	5	?	?	?	2	3	?
Smal	Malagasy	Austronesian	4	1	1	2	2	1	2	5	4
Xmao	Maori	Austronesian	1	2	5	2	2	1	4	2	3
Xmok	Mokilese	Austronesian	1	?	4	?	?	?	2	3	?
Xmtu	Motu	Austronesian	2	?	5	?	2	?	2	4	3
Xpal	Palauan	Austronesian	5	2	1	2	1	1	2	3	1
Xsam	Samoan	Austronesian	1	2	1	2	2	2	2	1	3
Xslb	Saliba (PNG)	Austronesian	1	?	2	?	?	?	2	3	?
Xtah	Tahitian	Austronesian	2	?	5	?	?	?	2	2	?
Xtgk	Tigak	Austronesian	1	?	5	?	?	?	4	5	?
Xtin	Tinrin	Austronesian	4	?	5	?	?	?	4	2	?
Stla	Tolai	Austronesian	1	?	5	?	?	?	4	3	?
Xbsq	Basque	Basque	2	1	4	1	2	1	2	5	4
Xapl	Apalaí	Cariban	5	?	2	?	2	?	1	4	3
Xhix	Hixkaryana	Cariban	5	1	2	1	2	1	1	4	3
Xchk	Chukchi	Chukotko-Kamchatkan	5	1	4	1	1	2	2	4	1
cANG	Angolar	Creole	2	2	5	1	2	2	6	5	4
cBER	Berbice Dutch	Creole	2	1	5	2	1	1	2	1	4
cCAP	Cape Verde	Creole	2	2	5	1	2	1	2	5	4
cGUI	Guinea Bisau	Creole	2	2	5	1	2	1	2	5	4
cDOM	Dominican	Creole	2	1	5	1	2	1	2	5	-
cHAI	Haitian	Creole	2	1	5	1	2	2	2	5	-
cJAM	Jamaican	Creole	2	1	5	2	1	1	2	5	4
cKOR	Korlai	Creole	2	1	5	2	2	1	2	5	4
cKRI	Krio	Creole	2	1	5	2	1	2	2	1	2
cNUB	Nubi	Creole	2	1	5	1	2	1	2	5	2
cNDY	Ndyuka	Creole	2	2	5	3	1	2	2	5	4
cNAG	Nagamese	Creole	2	1	5	2	1	1	2	5	1

cNEG	Negerhollands	Creole	2	2	5	3	1	2	2	5	4
cPAL	Palenquero	Creole	2	1	5	1	2	1	6	5	4
cPAP	Papiamentu	Creole	2	1	5	1	2	1	2	5	4
cSEY	Seychellois	Creole	2	2	5	1	2	1	2	5	4
cTOK	Tok Pisin	Creole	2	1	5	1	2	2	2	5	2
cZAM	Zambangueño	Creole	2	1	5	1	2	2	2	5	4
Xdag	Daga	Dagan	5	?	2	?	?	?	2	4	?
Xknd	Kannada	Dravidian	2	?	2	?	?	?	1	1	?
Xgrw	Greenlandic (West)	Eskimo-Aleut	5	2	2	1	2	1	1	5	1
Xalb	Albanian	Indo-European	1	1	2	2	2	1	2	5	4
Xarm	Armenian (Eastern)	Indo-European	1	?	2	?	?	?	5	2	?
Xbre	Breton	Indo-European	1	?	2	?	2	?	6	1	1
Xcze	Czech	Indo-European	5	?	4	?	?	?	1	5	?
Ldut	Dutch	Indo-European	1	1	2	2	1	1	2	5	4
Leng	English	Indo-European	1	1	2	3	1	1	2	5	4
Xgae	Gaelic (Scots)	Indo-European	4	?	4	?	2	?	2	1	4
Xgrk	Greek (Modern)	Indo-European	2	1	2	2	1	1	2	5	4
Xhin	Hindi	Indo-European	5	1	2	1	1	1	2	1	1
Xiri	Irish	Indo-European	4	1	4	2	2	1	2	1	4
Xlat	Latvian	Indo-European	2	1	4	1	1	1	1	1	4
Xpol	Polish	Indo-European	5	?	2	?	?	?	2	5	?
Xrom	Romanian	Indo-European	2	?	2	?	?	?	2	5	?
Xrus	Russian	Indo-European	5	1	4	2	1	1	2	1	4
Xscr	Serbian-Croatian	Indo-European	5	?	5	?	?	?	2	5	?
Lspa	Spanish	Indo-European	2	1	2	2	2	1	2	5	4
Xswe	Swedish	Indo-European	2	?	2	?	?	?	2	5	?
Xtaj	Tajik	Indo-European	1	?	4	?	2	?	1	5	1
Xwel	Welsh	Indo-European	4	?	2	?	?	?	2	1	?
Xjpn	Japanese	Japanese	1	2	2	1	1	1	1	1	1
Xkro	Krongo	Kadugli	5	?	4	?	2	?	6	5	1
Xjuh	Jul'hoan	Khoisan	1	?	5	?	?	?	4	5	?
Xkho	Khoekhoe	Khoisan	3	1	5	1	1	1	2	5	1
Xsdw	Sandawe	Khoisan	1	?	2	?	?	?	1	4	?
Xkor	Korean	Korean	5	1	2	1	1	1	2	1	1
Xyim	Yimas	Lower Sepik-Ramu	5	?	2	?	?	?	1	4	?
Xckr	Canela-Krahô	Macro-Ge	5	?	5	?	?	?	2	1	?
Xtzu	Tzutujil	Mayan	1	?	4	?	?	?	2	3	?
Xmis	Miskito	Misumalpan	2	2	2	1	2	2	1	5	3
Xprh	Pirahã	Mura	5	?	2	?	?	?	1	5	?
Xarc	Archi	Nakh-Daghestanian	2	?	2	?	?	?	1	2	?
Xche	Chechen	Nakh-Daghestanian	5	?	2	?	?	?	2	2	?
Xlez	Lezgian	Nakh-Daghestanian	2	1	2	1	1	2	1	2	1
Xbir	Biom	Niger-Congo	1	?	1	?	?	?	2	5	?
Sdio	Diola-Fogny	Niger-Congo	1	?	4	?	?	?	1	5	?
Smoo	Mooré	Niger-Congo	4	?	2	?	?	?	6	5	?
Xsup	Supyire	Niger-Congo	1	?	4	?	?	?	2	4	?
Stne	Temne	Niger-Congo	3	?	4	?	?	?	1	3	?
Syor	Yoruba	Niger-Congo	5	2	5	2	2	2	4	5	2
Xzul	Zulu	Niger-Congo	5	2	1	2	2	1	1	4	2
Xbar	Bari	Nilo-Saharan	5	2	1	2	2	1	2	4	2
Xknm	Kunama	Nilo-Saharan	4	?	2	?	?	?	1	5	?
Xknr	Kanuri	Nilo-Saharan	1	2	2	2	2	1	1	4	1
Xlan	Lango	Nilo-Saharan	3	?	3	?	?	?	2	4	?

Xmaa	Maasai	Nilo-Saharan	5	?	4	?	2	?	2	5	1
Xtbu	Tubu	Nilo-Saharan	4	?	2	?	2	?	1	5	1
Xtna	Turkana	Nilo-Saharan	5	?	1	?	?	?	1	3	?
Xabk	Abkhaz	Northwest Caucasian	2	?	2	?	?	?	1	5	?
Xcoo	Coos (Hanis)	Oregon Coast	4	?	2	?	?	?	2	4	?
Xmxp	Mixtec (Peñoles)	Oto-Manguean	5	?	1	?	?	?	2	4	?
Xpae	Páez	Páezan	5	?	2	?	?	?	1	5	?
Xshk	Shipibo-Konibo	Panoan	5	?	2	?	3	?	1	1	3
Xqim	Quechua (Imbabura)	Quechuan	5	1	2	1	1	1	2	5	1
Xala	Alamblak	Sepik	4	?	2	?	?	?	2	4	?
Xawt	Awtuw	Sepik	2	?	2	?	?	?	1	3	?
Xbrm	Burmese	Sino-Tibetan	5	2	2	1	2	2	6	1	1
Xlad	Ladakhi	Sino-Tibetan	3	?	2	?	?	?	1	1	?
Xlep	Lepcha	Sino-Tibetan	2	?	2	?	?	?	6	2	?
Xlim	Limbu	Sino-Tibetan	3	2	2	1	1	1	6	2	1
Xmei	Meithei	Sino-Tibetan	2	?	2	?	?	?	1	2	?
Xmiz	Mizo	Sino-Tibetan	5	?	5	?	?	?	2	1	?
Xlkt	Lakhota	Siouan	1	1	2	3	2	2	2	5	3
Xtha	Thai	Tai-Kadai	1	1	5	2	2	1	3	3	2
Xame	Amele	Trans-New Guinea	1	2	2	1	2	2	2	4	2
Xkob	Kobon	Trans-New Guinea	1	2	2	1	2	2	1	3	3
Xwsk	Waskia	Trans-New Guinea	1	?	2	?	?	?	2	4	?
Xgua	Guaraní	Tupian	4	1	5	1	2	2	6	5	1
Xurk	Urubú-Kaapor	Tupian	5	2	5	1	2	2	2	3	3
Xfin	Finnish	Uralic	5	1	2	1	1	1	3	1	4
Xhun	Hungarian	Uralic	1	1	2	1	1	1	2	1	4
Xmns	Mansi	Uralic	5	?	2	?	?	?	2	5	?
Xood	O'odham	Uto-Aztecan	4	?	2	?	1	?	2	5	4
Xtsh	Tümpisa Shoshone	Uto-Aztecan	5	?	2	?	1	?	2	5	4
Xyaq	Yaqui	Uto-Aztecan	1	?	2	?	?	?	2	5	?
Xyko	Yukaghir (Kolyma)	Yukaghir	5	?	2	?	?	?	1	4	?