Word order as evidence for recursion in Pirahã

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It has been claimed that Pirahã, an indigenous language of Brazil, spoken in the Amazon region, is a non-recursive grammar (Everett 2005, 2009). However, this claim has been disputed. Nevins, Pesetsky & Rodrigues (2009, 2010), relying on descriptions of the language published by Everett, argue that there is no empirical evidence for the lack of recursion in Pirahã. Sauerland (2010) based on an experimental analysis of the Pirahã morpheme *–sai*, concludes that when this morpheme has a low tone, it marks syntactic embedding. In this paper, we present data from our fieldwork with Pirahã speakers from the village of Piquiá, supporting the claim that Pirahã syntax is recursive. Our data shows that, besides being readily available in certain syntactic environments, recursion in this grammar interacts in an interesting way with word order.

Pirahã is predominantly SOV. This canonical order seems to be disrupted when the verbal complement is a sentence, as in (1) which exhibits an SVO order. Everett (2005, 2009) takes this to be evidence that the sentential complement is only paratactically related to the main clause. Thus, he understands that (1) should be translated as in (2). However, our data in (3) shows that the order SOV is indeed possible when the embedded clause is non-finite. (3), for instance, is a case of obligatory control involving an infinitival embedded sentence. Importantly, it is possible to have more than one level of embedding, as shown in (4). This suggests that this grammar allows recursive embedding at least in obligatory control configurations. The data in (5), which displays object obligatory control, shows clearly that not only is the SOV order possible in obligatory control, but also that a negation within the matrix clause has scope over the entire embedded clause. Notice that (5) does not have the interpretation in (6). According to the speakers, the meaning in (6) is expressed by sentences like (7). That is, the negation has obligatory wide scope. In (5), the combination of the word order SOV plus the obligatory wide scope of the matrix negation, is a robust argument for the syntactic embedding of the infinitival clause.

Another interesting instance of the interaction between word order and recursion is found within possessive noun phrases. Everett (2005) offers the contrast in (8) & (9) as an argument for his claim that multiple embedding is not possible in Pirahã. In our fieldwork, however, we could promptly elicitate nominal expressions displaying 2 levels of possessive embedding (10)-(11). Notice, though, that the order Possessor>Noun is inverted in the second level of embedding, as the possessor appears post-nominally. This change in the word order might be related to the semantic distinction between inalienable and alienable possessive relations. Many languages (cf. (12) from Dogon, a Niger-Congo language) reserves the order Possessor>Noun for inalienable relations. Alienable relations are expressed by the reversed order, which maybe intermediated by a prepositional phrase or not. In (10)-(11), the semantic relation between the possessor and the noun is inalienable in the level of embedded (*motor boat*, *dog tail*), but alienable in the second level (*canoe Iapohen*, *dog my*). In this paper, we discuss this analysis, concluding that Pirahã contributes to our understanding of recursion, not because it is exceptional, but because it shows that recursion, a core and universal property of syntax, might be constrained by certain interface requirements between syntax, semantics and morphology.

(1) Maria hi gai-sai. Ana hi (goo) gai-sai aogi
Maria 3Person said-NOMLZR Ana 3Person like said-NOMLZR foreigner
goo gai-sai maasi ti
like said-NOMLZR pretty I

(2) Maria said: Ana said like: The foreigner said like: I am pretty.

(3) ti kapiiga kagakai ogabagai apaitisai
I paper study want Pirahã
'I want to study Pirahã'

(4) ti kapiiga kagakai ogabagai sogabagai
I paper study want would.like
'I would like to want to study'

(5) ti kaai iaipaha tabo kabahai neai
I house make wood gave-not you
'I did not give you wood to make a house'

(6) # I did not give you wood. Make a house!

(7) ti tabo kabahai neai abaago kaai iaipa
I wood gave-not you alone house make

(8) mothoi agoa
motor canoe
'canoe's motor'

(9) *[kó'oí hoagí] kai góihií 'íga
name son daughter that true
'That is Kó'oí's son's daughter.'

(10) agoa Iapohen motohoi
canoe Iapohen motor
'Iapohen's canoe's motor'

(11) niupai ti igato huakue kopae
dog I tail long back
'My black dog's long tail'

(12) a. *tigɛ wo mɔ*
name he GEN
'His name'

b. u ba (Dogon, Plundian 1995)
you head
'your father'

References

Everett, D. 2005. Cultural constraints on grammar and cognition in Piraha: Another look at the Design Features of human language. *Current Anthropology* 46.621-646.

Everett, D. 2009. Pirahã culture and grammar: A response to some criticisms. *Language* 85.405-442.

Nevins, A., D. Pesetsky & C. Rodrigues. 2009a. Pirahã exceptionality: A reassessment. *Language* 85.355-404.

Nevins, A., D. Pesetsky & C. Rodrigues. 2009b. Evidence and argumentation: A reply to Everett (2009). *Language* 85.671-681.

Plungian, V. 1995. *Dogon*. Munich: Lincom Europa.

Sauerland, U. 2010. *Experimental evidence for complex syntax in Pirahã*. Ms, ZAS Berlin [available at http://www.zas.gwz-berlin.de/574.html?&L=1].