
Article

Chomsky and Everett

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Abstract

Noam Chomsky thought of discrete infinity as the core property of human language but later he somehow changed his own claim. He regards recursion, instead of discrete infinity, as the universal property of human language. Meanwhile, Daniel Everett has researched one of the Amazonian languages, Pirahã and insisted that recursion is not found in Pirahã. Some researchers claim that Pirahã has recursion as other languages do but others think that even if recursion is not employed in the language, it does not mean that recursion is not the universal property of human language. Is recursion the universal property of human language as Chomsky insists?

Key Words: discrete infinity, recursion, Pirahã, tool-kit hypothesis, recursive thinking.

Introduction

First Chomsky insisted that discrete infinity was the core property of human language but later he somehow changed his idea. Then he proposes recursion as the universal property of human language. But Everett doubts the plausibility of recursion because it is not found in Pirahã. Is recursion the universal property of human language?

1. Discrete Infinity

Chomsky claimed that the language faculty of humans has the property of discrete infinity:

The latter [the language faculty] has features that are quite unusual, perhaps unique in the biological world. In technical terms it has the property of “discrete infinity.” (Chomsky 1988: 169)

Human language is not a continuum but composed of distinct parts. This is what the word discrete means here. Also human language has no limit, in principle, to how many words a sentence contains.

This is what the word infinity means here. But that is not the case with other animals. For example, the number of ape calls is finite and the bee language is infinite but not discrete. Thus, human language has the unique property of discrete infinity. Furthermore, it is noted that Chomsky thinks that discrete infinity can be observed in human speech alone.

But surprisingly enough, Chomsky abruptly starts to insist that not discrete infinity but recursion is the universal property of human language. Is recursion the same as discrete infinity? In a sense, we can say that recursion is based on being discrete and makes infinity. So it may be thought that recursion is the same as discrete infinity. Then, what is recursion?

2. Recursion

Chomsky argues, along with Marc D. Hauser and W. Tecumseh Fitch, that the faculty of language should be divided into two parts: the faculty of language in the broad sense (henceforth FLB) and the faculty of language in the narrow sense (henceforth FLN). Furthermore, they insist that FLN includes recursion:

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We submit that a distinction should be made between the faculty of language in the broad sense (FLB) and in the narrow sense (FLN). [...] We hypothesize that FLN only includes recursion [...].

(Hauser, Chomsky and Fitch 2002:1569)

This FLN, a core property of which is recursion, generates an infinite array of expressions, using a finite set of elements:

[...] a core property of FLN is recursion, [...] FLN takes a finite set of elements and yields a potentially infinite array of discrete expressions. This capacity of FLN yields discrete infinity [...].

(Hauser, Chomsky and Fitch 2002: 1571)

Here, recursion is treated as being different from discrete infinity. In other words, it is thought that recursion generates discrete infinity. If so, recursion is located in internalized language (henceforth I-language) and discrete infinity is in externalized language (henceforth E-language). I-language is a physical mechanism of the brain and E-language is the actual utterances. In fact, Chomsky (1988:169) deals with discrete infinity in the domain of E-language, referring to ape calls and the bee language. So recursion is thought to be located in the domain of I-language.

Moreover, FLN described above, is uniquely human while much of FLB is shared with other species:

[...] although many aspects of FLB are shared with other vertebrates, the core recursive aspect of FLN currently appears to lack any analog in animal communication and possibly other domains as well.

(Hauser, Chomsky and Fitch 2002: 1571)

Thus, recursion has come to be a core property of all human languages, which communications of other animals do not have. But it is unknown why Chomsky abandoned the notion of discrete infinity and adopts the notion of recursion as the universal property of human language.

3. Pirahã

Everett has studied one of the Amazonian languages, Pirahã and insisted that Pirahã sentences have no recursion, which Chomsky claims is the universal property of human language. For example, Pirahãs say:

“Ko Paitá, tapoá xigabooapaáti. Xoogiai hi goo tapoá xoáboi. Xaisigiai.” (Everett 2008: 227)

If this is literally translated into English, we have:

“Hey Paitá, bring back some nails. Dan bought those very nails. They are the same.”

(Everett 2008: 227)

In such a case, English usually expresses the same meaning as the above, using a relative pronoun, *that*:

“Hey Paitá, bring back the nails *that* Dan bought.” (Everett 2008: 227)

By the way, according to Everett, although no definition of recursion is given in Hauser, Chomsky and Fitch (2002), recursion is defined as “the ability to put one item inside another of the same type (Everett 2008: 228).” Based on his definition of recursion, he explains recursion in syntax as follows:

In syntax, again, this [recursion] would translate into putting one unit inside another unit of the same type. Take a phrase like *John’s brother’s son*, which contains the noun phrases *John*, *his brother*, and *his son*. And a sentence like *I said that you are ugly* contains the sentence *you are ugly*. (Everett 2008: 228)

Going back to the Pirahã sentences cited above, there is no recursion with the three sentences juxtaposed in a row, but the English sentence “Bring back the nails *that* Dan bought” contains another sentence “*that* Dan bought.” According to Everett’s definition of recursion, this means that English has recursion. So “whatever you could say with recursion in one

language [English], you could say without it in another [Pirahã]” (Everett 2008: 228) says Everett, although “Chomsky claimed that the fundamental tool that underlies all of this creativity of human language is recursion (Everett 2008: 228).” If Everett is right, then recursion will not be the universal property of human language against Chomsky’s claim.

4. Pirahã has recursion

Bernd Heine and Tania Kuteva (2007: 273) insist that Pirahã has recursion as other languages do, accepting Everett’s first analysis of Pirahã in 1986:

[...] Based on his extensive knowledge of this language, Everett (1986, 2005; Bower 2005) concludes that it [the Amazonian language, Pirahã] does not make use of recursion. A look at the description provided by Everett (1986) suggests, however, that there is an alternative view on this matter. As we noted above, recursion manifests itself in particular in noun modification and clause subordination or, to put it more strongly, if either of these is present, there is recursion. It would seem that both are in fact present in Pirahã. Thus, (8a) seems to be an instance of possessor—possessee modification and (8b) of noun—adjective modification. While Everett notes that noun modification involves paratactic augmentation, the evidence provided suggests that these are cases that in certain schools of linguistics could be described in terms of a recursive rule such as (1b) [A → A [B]].

(8) Pirahã (Mura, Macro-Chibchan; Everett 1986: 209)

a. ti bai xaagá giopaí xahóápátí giopaí.

I fear have dog Xahóápátí dog
‘I am afraid of the dog, Xahóápátí’s dog.’

b. xogaí xogií koíhi hiaba

field big small NEG

‘(a) big field, not (a) small (one)’

And there are also examples to suggest that there is some kind of clause subordination in Pirahã; suffice it to quote Everett (1986: 262-3): “Certain types of subordinate clause (nominalized, temporal and conditional) are marked morphologically on the subordinate verb”, or “Temporal and conditional ... clauses precede the matrix clause, whereas other types of

subordinate (adverbial) clauses usually follow the matrix clause.”

To conclude, we have so far found no clear evidence for languages that demonstrably lack recursion of any kind; (Heine and Kuteva 2007: 273)

As Heine and Kuteva point out, Everett (1986) recognized recursion in Pirahã but later he (2005) abandoned his first analysis and insisted that Pirahã did not have any recursion at all.

5. Pirahã does not have recursion

On the other hand, here is an argument, independently of Everett’s analysis of Pirahã, which says that Pirahã does not have recursion:

In conclusion, the Pirahã structures we have looked at in this paper have shown no evidence of being syntactically recursive. Instead, Pirahã appears to make use of juxtaposition and morphological complexity to express complex concepts. Our conclusion is hence very similar to Everett’s analysis (2005). We have discussed a number of constructions in which even syntactically complex languages prefer non-recursive structures to recursive ones. It is possible that what other languages have as an option is the default in Pirahã. Further support comes from the fact that Pirahã is an exclusively oral language. Spoken language and predictable content are exactly the instances in which non-recursive structures are preferred in other languages such as English. Hence, there is no apparent functional need for recursion in Pirahã syntax. (Sakel and Stapert 2010: 13)

By the way, Everett (2005, 2007, 2009) has argued about recursion in Pirahã with Nevins, Petsky, and Rodrigues (2007, 2009). They insist that Pirahã has recursion as other languages do. But the discussion is highly technical, wide-ranging, and complicated, so we put it aside in this paper.

6. Toolkit Hypothesis

Another response to Everett’s claim that Pirahã lacks recursion is that “recursion is a tool that’s made available by the brain, but it doesn’t have to be used (Everett 2008: 230).” This is called “the Toolkit Hy-

pothesis.” Jackendoff explains it as follows:

[...] Universal Grammar is not supposed to be what is universal among languages: it is supposed to be the “toolkit” that a human child brings to learning any of the languages of the world. [...] When you have a toolkit, you are not obliged to use every tool for every job [e.g. recursion]. Thus we might expect that not every grammatical mechanism [e.g. recursion] provided by Universal Grammar appears in every language [e.g. Pirahã]. For instance, some languages make heavy use of case marking, and others don’t; some languages make heavy use of fixed word order, and others don’t. We would like to say that Universal Grammar makes both these possibilities available to the child; but only the possibilities actually present in the environment come to realization in the child’s developing grammar. [...] Learning a language can then be thought of roughly as like customizing the settings in a software package. [...] In any event, it is commonly understood that Universal Grammar provides possibilities, not just certainties, for the structure of the grammar the child is to develop. (Jackendoff 2002: 75)

The same thing as this is also explained by Culicover and Jackendoff as follows:

The language faculty, developed over evolutionary time, provides human communities with a toolkit of possibilities for cobbling together languages over historical time. Each language, in turn, “chooses” a different selection and customization of these tools to construct a mapping between sound and meaning. We will call this the Toolkit Hypothesis.

(Culicover and Jackendoff 2005: 5)

Moreover, the same claim as the Toolkit Hypothesis is repeated by Chomsky himself as follows:

Well, if Everett were right, it would show that Pirahã doesn’t use the resources that Universal Grammar makes available [recursion]. But that’s as if you found a tribe of people somewhere who crawled instead of walking. They see other people crawl, so they crawl. It doesn’t show that you can’t

walk. It doesn’t show that you’re not genetically programmed to walk [and do walk, if you get the relevant kind of input that triggers it and are not otherwise disabled]. What Everett claims [that recursion is not the universal property of all human languages on the earth] probably isn’t true anyway, but even if it were, that just means this language [Pirahã] has limited lexical resources and is not using internal Merge [recursion]. Well, maybe not: Chinese doesn’t use it for question-formation. English doesn’t use a lot of things; it doesn’t use Baker’s polysynthesis option. No language uses all the options that are available. (Chomsky 2012: 30)

The case of the tribe of people above is, however, hardly possible to discover as in the case of a species of bird which is mentioned below. Chomsky says:

The language faculty confers enormous advantages on a species that possesses it. It is hardly likely that some species has this capacity but has never thought to use it until instructed by humans. That is about as likely as the discovery that on some remote island there is a species of bird that is perfectly capable of flight but has never thought to fly until instructed by humans in this skill. Although not a logical impossibility, this would be a biological miracle, and there is no reason to suggest that it has taken place. (Chomsky 1988: 38)

If this is true, then the case of Pirahãs will be another biological miracle, although not a logical impossibility, and there is no reason to suppose that Pirahãs do not use recursion although they have the ability to do so.

But “if recursion doesn’t have to appear in one given language [e.g. Pirahã], then, in principle, it doesn’t have to appear in any language (Everett 2008: 230),” says Everett. This means that “the unique property of human language [recursion] does not actually have to be found in any human language (Everett 2008: 230).” According to Everett, “grammars without recursion precede grammars with recursion evolutionarily [...] even in grammars with recursion, nonrecursive structures are used in most environ-

ments (Everett 2008: 236).” In short, recursion is not the essential property of human language, claims Everett. Which is right, Chomsky or Everett?

If we make use of Chomsky’s terminology, then we will be able to say that the Toolkit Hypothesis may be paraphrased as follows: Pirahã have an option of recursion in their innate Universal Grammar but it is not realized in their I-language of Pirahã, so recursion is not generated in their E-language of Pirahã. Universal Grammar is a biological endowment at birth and I-language is the product with parameters of Universal Grammar set one way or another and E-language is generated by I-language. In other words, Chomsky insists that recursion does not emerge in an E-language even though its mechanism is built in Universal Grammar. Because an I-language does not always take advantage of it. On the other hand, Everett claims that recursion is not the universal property of human language because it is not found in an E-language, Pirahã. So the problem may be where we find recursion: in Universal Grammar or E-language or I-language? Everett locates recursion in E-language and for Chomsky, recursion is an option in Universal Grammar. So, if Chomsky is right, the same may be true of other animals. It may be possible that apes or bees have recursion but do not use it, so recursion cannot be found in ape calls or the bee language as in the case of Pirahã. In other words, if the Toolkit Hypothesis is right, then it will be able to be applied to other creatures than humans. This means that recursion can be found but is not used, for example, in apes or bees. According to Chomsky, it would be a biological miracle although not a logical impossibility. Then, what is Chomsky’s reaction to this?

Moreover, we may be able to add the example of relative pronouns to this matter. It is usually thought that English has relative pronouns but Japanese does not. But some people assume that both English and Japanese have relative pronouns, but they cannot be observed in Japanese as in the case of recursion in Pirahã, where recursion is not found. This is the same logic as that of the Toolkit Hypothesis. Are relative pronouns the common feature of English and Japanese or not? What should we think of this?

Everett notices this matter because he divides UG into two types of Universal Grammar, UG-1 and UG-2:

It is very important to understand this distinction between the empirical UG-1 and the tautological UG-2. One helpful example showing the detachment that Chomsky sees between UG and empirical research is found in a statement of his in the February 1, 2009, edition of the *Folha de São Paulo*. Chomsky told the newspaper that he believes that I purposely mislead people about it. The form of his criticism of me is quite interesting:

Everett hopes that the readers do not understand the difference between UG in the technical sense (the theory of the genetic component of human language) and the informal sense, which concerns properties common to all languages. The speakers of Pirahã have all the same genetic components as us, so Pirahã children can create a normal language. Suppose that Pirahã doesn’t permit this. It would be the same as discovering a community that crawls but doesn’t walk, so that children that grow there only crawl and never walk. The implications of this for human genetics would be null.

Chomsky’s remarks deserve close scrutiny here because of their relevance to the demand by NP&R [Nevins, Pesetsky, and Rodrigues] that I demonstrate how my claims falsify UG and because they show the difference between HC&F’s [Hauser, Chomsky, and Fitch’s] UG-1 and UG-2. (Thanks to Paul Postal for suggesting some of the remarks that follow.) Again, we see that UG-2 not only makes no predictions, but also has little if any connection to linguistic data. Chomsky allows in this latter quote that Pirahã could be as I describe it. Nothing in UG precludes this, he says. But then, of course, nothing in UG prevents a third, a half, or even all languages being like Pirahã, lacking recursion, and so forth. This means that there is no language nor any collection of languages that could possibly disconfirm UG in the ‘technical sense’. (Interestingly, if languages cannot disconfirm Chomsky’s view, then they also cannot support it.)

Chomsky thus makes it clear that NP&R’s state-

ment that nothing about Pirahã does or even could falsify UG refers to UG-2. This is because UG-2 is definitional and therefore not falsifiable. But UG-1 is an empirical hypothesis, the core of language is recursion, and that is falsified if it is understood as HC&F intend it, namely, as a hypothesis about language rather than cognition more broadly.

(Everett 2009: 439)

As you can see, Chomsky's UG in the technical sense is equivalent to Everett's UG-2 and Chomsky's UG in the informal sense is to Everett's UG-1. So, even if Pirahã does not have recursion, it will be Everett's UG-1, or Chomsky's UG in the informal sense that is refuted. On the other hand, Everett's UG-2, or Chomsky's UG in the technical sense remains intact.

7. Pirahã is an exception

Moreover, some researchers claim that Pirahã is an exception even if it is a recursion-less language:

Some researchers, however, claim that recursion is crucial and that even if the recursion-less analysis of Pirahã is correct, the language [Pirahã] is nothing more than an exception. It is just an oddity. Pirahã is no 'black swan,' they say. It could be an off-white swan, a slight variation from the norm that is irrelevant to the theory that all swans are white [the theory that all human languages have recursion].

(Everett 2012:294)

Everett sharply criticizes such an idea that Pirahã is an exception:

If Pirahã were merely an exception, not a counterexample [to the idea that recursion is the universal property of human language], [...] if we granted that there could be one non-recursive grammar [the grammar of Pirahã], then we would have to admit that there could be another. But if there were another language that lacked recursion, there could be more.

(Everett 2012: 295)

It is safe to say, as Everett mentions, that it leads to the denial of the idea that recursion is the unique property of human language to consider Pirahã as an

exception. Is Pirahã an exception or is recursion not the universal property of human language?

8. Recursion is not what distinguishes humans from other animals

Furthermore, even if just one recursion-less language existed, this would deny that recursion is a universal property of human language, which other animals do not have:

Most importantly, even if there were just one non-recursive language, then the capacity for constructing recursive sentences could not be what explains why humans have language but other animals do not.

(Everett 2012: 295)

As we have seen, if the Toolkit Hypothesis is right, then other creatures than humans may have recursion, which is thought to be the universal property of human language and which has not been found so far in other animals. This means that recursion is not what distinguishes humans from other animals. Can recursion explain why humans have language but other animals do not?

9. Recursive Thinking

According to Everett, we humans have recursive thinking, in other words, we can think recursively:

[...] normal humans must be able to think that other humans think. And they must be able to think that other people know that other people think. That is one thought inside another thought of the same type—recursive thinking.

(Everett 2012: 281)

Furthermore, we humans have a desire to express our thoughts of other people's thoughts:

And they often want to tell other humans about their thoughts of other people's thoughts. Suppose you think that 'Mary knows that I know that her husband knows that we know that he is fooling around.' That is recursive thinking. Without it we could not have such thoughts.

(Everett 2012: 281)

Then, how is our recursive thinking expressed?

According to Everett, for example, in English recursion is used in sentences while in Pirahã recursion is employed in stories. So it has nothing to do with where recursion is used that we have recursive thinking:

But it turns out that where the recursion is located in our languages—in our stories [Pirahã], in our sentences [English], or both [English]—has very little to do with our ability to reason recursively.

(Everett 2012: 281)

Pirahã culture eliminates recursion from its grammar by lexical convention and makes what is one sentence in English a kind of small story:

Pirahã lacks all words of this type [think, believe, say, and want]. No verbs in Pirahã require a subordinate clause. This is one way that Pirahã culture can eliminate, by lexical convention, recursion from its grammar. Rather than saying ‘John said that he was coming,’ the Pirahãs would say ‘John spoke. He is coming.’ That is ambiguous, making what is in English a single sentence in effect a small story. Or rather than say, ‘John thinks he is coming,’ they would handle this the same way, ‘John spoke. I am coming.’ Like other Amazonian groups, the Pirahãs tell us what they think that people are thinking or what they themselves are thinking, by using the verb ‘to speak,’ putting words in other people’s mouths to convey their thoughts. (Everett 2012: 287)

As Everett claims, in *the Arabian Nights*, stories are also embedded in other stories. For example, in *the Hunchback’s Tale* (*Arabian Nights* 1991: 327-423), a young man’s story is embedded in *the Christian Broker’s Tale* (*Arabian Nights* 1991: 334-348) and another young man’s story is placed in *the Steward’s Tale* (*Arabian Nights* 1991: 349-358). Moreover, a sickly youth’s story is inside *the Jewish Doctor’s Tale* (*Arabian Nights* 1991: 358-367) and a young man’s story is inserted in *the Tailor’s Tale* (*Arabian Nights* 1991: 367-382). This is another example of recursion in the form of story. So stories in stories are not limited in Pirahãs alone. Probably they are universal in all languages across the world.

Thus, it is connected with the relation between language and culture how our thought is expressed in language. So recursion in sentences is not the universal property of human language:

The key to understanding how grammar and reasoning fit together, whether talking about other minds or anything else, is the fit between a language and its containing culture, society, and situation. What this all means is that sentence recursion is not crucial to the structures of human languages and thus, if this is correct, that recursion does not play the role in natural languages that many linguists have claimed. (Everett 2012: 294)

So, language is, for Everett, the cultural tool not the biological endowment as Chomsky insists.

10. Recent Research on Pirahã

According to a paper issued in March 2016, it is reported that Pirahã cannot be confirmed to have recursion although admitting this conclusion is tentative:

Our analysis has failed to find strong support for syntactically embedded structures [recursion] in Pirahã. We emphasize that any conclusions that can be drawn from this corpus evidence must be highly tentative, due to the difficulty of working with a language [Pirahã] whose speakers are so difficult to access, as well as the computational challenges of characterizing linguistic complexity. Our hope is that the analysis presented here, along with the release of the annotated corpus, will promote further investigation into the formal properties of natural languages and help to push the debate towards testable empirical claims.

(Futrell, Stearns, Everett, Piantadosi, and Gibson 2016: 18)

Conclusion

Chomsky insists that recursion is the universal property of human language although he claimed discrete infinity as the core property of human language instead of recursion before. But Everett doubts Chomsky’s claim because Pirahã does not have re-

cursion at all. Against Everett's criticism of Chomsky, it is insisted that Pirahã does not take advantage of recursion or that Pirahã is an exception. Everett responds to it that if recursion can be an option or an exception, then recursion cannot be the universal property of human language. According to Everett, recursion is used in syntax and stories in one language while it is employed only in stories in another. So recursion in syntax is not the universal property of human language.

But this problem can be looked at from another angle: Where can recursion be located? Everett locates recursion in E-language (actual utterances) and Chomsky situates it as an option in Universal Grammar (biological endowment). Everett explains this matter as two types of Universal Grammar, UG-1 and UG-2. If Chomsky is right, then even the only one property of some human language will be located in UG-2 and it may not be realized in all of the other languages. This means that whatever the property may be, it is incorporated in UG-2 and that is, as Everett rightly points out, never verified. Does this lead to the denial of Chomsky's Universal Grammar? Because this means that his UG must incorporate every property of human language whatever it may be.

References

- Burton, Richard F. (translation) *Arabian Nights, Volume I: The Marvels and Wonders of the Thousand and One Nights*. Signet Classics. 2007.
- Chomsky, Noam. *Language and Problems of Knowledge: The Managua Lectures*. The MIT Press. 1988.
- Chomsky, Noam. *The Science of Language: Interviews with James McGilvray*. Cambridge University Press. 2012.
- Culicover, Peter W. and Ray Jakendoff. *Simpler Syntax*. Oxford University Press. 2005.
- Everett, Daniel. Pirahã. *Handbook of Amazonian Languages*, edited by D. Derbyshire and G. Pulum, vol. 1, pp. 200-326. Mouton de Gruyter. 1986.
- Everett, Daniel. "Cultural constraints on grammar and cognition in Pirahã." *Current Anthropology* 46 (4): pp. 621-646. (2005).
- Everett, Daniel. "Cultural constraints on grammar in Pirahã: A reply to Nevins, Pesetsky, and Rodrigues (2007)." Online: <http://ling.auf.net/ling-Buzz/000427>. 2007.
- Everett, Daniel. *Don't Sleep, There Are Snakes: Life and Language in the Amazonian Jungle*. Profile Books. 2008.
- Everett, Daniel. "Pirahã culture and grammar: a response to some criticisms." *Language* 85 (2): pp. 405-442. (2009).
- Everett, Daniel. *Language: The Cultural Tool*. Pantheon Books. 2012.
- Futrell, Richard, Laura Stearns, Daniel L. Everett, Steven T. Piantadosi, and Edward Gibson. "A Corpus Investigation of Syntactic Embedding in Pirahã." Public Library of Science (MIT Open Access Articles) Online: <http://dx.doi.org/10.1371/journal.pone.0145289>. 2016.
- Hauser, Marc D., Noam Chomsky, and W. Tecumseh Fitch. "The faculty of language: What it is, who has it, and how did it evolve?" *Science* 298: pp. 1569-1579. (2002).
- Heine, Bernd and Tania Kuteva. *The Genesis of Grammar: a Reconstruction*. Oxford University Press. 2007.
- Jackendoff, Ray. *Foundations of Language: Brain, Meaning, Grammar, Evolution*. Oxford University Press. 2002.
- Larsen, Richard K., Viviane Déprez, and Hiroko Yamakido. *The Evolution of Human Language: Bilingual Perspectives*. Cambridge University Press. 2010.
- Nevins, A., D. M. Pesetsky, and C. Rodrigues. "Pirahã exceptionality: A reassessment." *Language* 85 (2): pp. 355-404. (2007).
- Nevins, A., D. M. Pesetsky, and C. Rodrigues. "Evidence and argumentation: A reply to Everett." *Language* 85 (3): pp. 671-681. (2009).
- Sakel, Jeanette and Eugenie Stapert. "Pirahã—in need of recursive syntax?" *Recursion and Human Language* edited by Harry van der Hulst, pp. 3-16. De Gruyter Mouton. 2010.

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