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DISCUSSION NOTE

Evidence and argumentation: A reply to Everett (2009)*

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This discussion note is a brief response to Everett (2009, E09), which was a reply to our assessment (Nevins, Pesetsky, & Rodrigues 2009, NP&R) of Everett's (2005, CA) earlier claims about the Amazonian language Pirahã. An important (and somewhat hidden) feature of E09 is a set of new empirical assertions presented in defense of CA's hypothesis that Pirahã lacks embedding. We argue that these new claims have not been supported by appropriate evidence; but if they are correct nonetheless, they WEAKEN rather than strengthen the case against embedding. We conclude with a discussion of comparable questions of argumentation and evidence that arise elsewhere in E09, and the relevance of these issues to the public discussion of CA's claims.

1. GOALS OF THIS REPLY. One of our reasons for undertaking the project reported in NP&R was the extraordinary attention that Everett's claims about Pirahã have received in the popular press—and the equally extraordinary significance that has been attributed to them. The *New Scientist* (March 18, 2006) suggested, for example, that Pirahã might constitute 'the final nail in the coffin for Noam Chomsky's hugely influential theory of universal grammar'; and the *Chicago Tribune* (June 10, 2007), under the headline 'Shaking language to the core', reported that Everett had 'fired a volley straight at the theory when he reported that the Brazilian tribe he was studying didn't use recursives [sic]'. More recently, the *Times* of London (October 24, 2008) has characterized Everett's claim that 'Pirahã lack the grammatical principle of recursion' as an 'astonishing find'.

If the conclusions in NP&R are correct, of course, Pirahã presents us with no nail, no coffin, no volley, and no astonishing find. Much of NP&R was devoted to an examination of the claims and conclusions about Pirahã language and culture that were put forward in CA, the article that triggered the publicity.¹ We argued that many of CA's claims were not coherent as stated; that the logic by which factual evidence was said to support them was flawed; and also that CA failed to discuss a wealth of published counterevidence (indeed, failed to acknowledge even the existence of this counterevidence). Finally, we argued, the linguistic evidence presented in CA not only fails to support claims of Pirahã exceptionality, but actually suggests THE OPPOSITE: that Pirahã fits straightforwardly into the known typology of human languages. In the field of linguistics, as in other fields, evidence does matter—as does the logic of the argumentation that links evidence to hypothesis. It is precisely in this domain that linguists can contribute to the Pirahã discussion in ways that reporters cannot. Since very few of the press reports on Pirahã had even raised the key questions of evidence and argumentation,

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¹ We adopt the abbreviations for Everett's publications on Pirahã previously used in NP&R: HAL for Everett 1986, DISS for Everett 1987, and CA for Everett 2005 (to which NP&R was a reply).

we considered it important to try to put these issues on the agenda at large, a task rendered particularly timely by the continuing public interest.

Similar considerations prompt us to offer this brief response to Everett's reply (E09) that accompanied the publication of NP&R. At the same time, we do not believe that *Language* readers would welcome a point-by-point discussion of all the claims and counterclaims taken up in E09. For example, although E09 mischaracterizes many arguments and claims from NP&R, these errors can be easily found by simply comparing E09's citations of NP&R with what we actually wrote, so we see little reason to correct them here.² We also believe that the most effective replies to E09's comments on such issues as the proper meaning of 'universal grammar' can already be found in the sections of NP&R to which E09's comments respond—so once again, we do not rehearse these issues a second time.

Instead, we focus in this commentary on one aspect of E09 that is less obvious, but of some significance nonetheless, precisely because of its direct bearing on questions of evidence and argumentation. Everett represents E09 as demonstrating that CA 'is essentially correct in its description of the facts and that it corrects errors found in Everett 1983, 1986 [*HAL* and *DISS*]' (E09:405). Far from upholding CA's description of the facts of Pirahã, however, E09 actually presents a bevy of new factual claims that do not appear in CA (nor in earlier works such as *HAL* and *DISS*), with an important, unmentioned consequence: if these newest claims are correct, ALMOST NONE OF CA'S ORIGINAL ARGUMENTS FOR THE LACK OF EMBEDDING REMAIN. Only CA's claims about possessor recursion remain intact. E09 thus constitutes a DE FACTO RETRACTION, rather than a defense, of CA's claims, at least where embedding is concerned.

One reason why this property of E09 is not obvious at first reading is a series of inaccurate characterizations of CA itself, which obscure the extent to which E09 actually undermines the paper it claims to defend. E09 repeatedly 'backdates' its novel claims, with the consequence that discussions that actually CONTRADICT CA are presented as if they were DEFENDING it instead. In each of these cases, CA's real claims were crucial to an argument against embedding (and in no case does the novel claim presented in E09 replace CA's argument against embedding with a compelling alternative argument). The next section considers these issues, in a schematically consistent format that we

² A few examples of E09's mischaracterizations of NP&R are the following:

- a. NP&R did not claim that '-*sai* might really be two morphemes, one marking conditionals and the other marking nominalization' nor that 'the former cannot mark old information'—despite an entire section of E09 entitled 'Conditionals' (pp. 411–12) devoted to refuting these supposed claims from NP&R. E09 is apparently making reference to the final paragraph of a footnote (NP&R:372, n. 23), in which we tentatively REFUTED the very claim E09 presents us as defending.
- b. Though E09 attacks NP&R for 'claim[ing] that any correlative in any language entails embedding' (p. 412), what we actually wrote was that 'the syntax and semantics of correlatives have been the subject of extensive investigation in a number of languages' and that 'it is not in doubt FOR SUCH LANGUAGES [emphasis added—NP&R] that a correlative clause belongs to the same sentence as the phrase it semantically modifies' (p. 380). We went on to note that CA had failed to apply to Pirahã any of the tests that motivated the embedded analysis of correlatives in other languages.
- c. E09 chides us for a 'deep misunderstanding' of the nature of the Pirahã narrative that we cited from Gonçalves (1993:39–41) in NP&R (E09:430), and quotes (as a corrective) an email message from Gonçalves, in which narratives like the one quoted in NP&R are described as texts composed out of 'fragments, pieces of stories that were collected from conversation, from questions and responses and not a mythic text like you find in the majority of Amazonian cultures' (p. 431). E09 fails to note, however, that NP&R made the very same points (NP&R:393–94, especially the first paragraph of p. 394; see also n. 53), and characterized the cited narrative exactly as Gonçalves does (in part because NP&R's text reflects our own correspondence with Gonçalves).

hope clarifies the consequences of E09's new empirical claims for the question of embedding. We then attempt to evaluate the strength of E09's new claims, before returning in the final section to an overall assessment of the role of evidence and argumentation in the Pirahã discussion.

2. HOW E09'S NOVEL CLAIMS UNDERMINE CA'S ARGUMENTS AGAINST EMBEDDING.

2.1. TWO ARGUMENTS AGAINST EMBEDDING THAT RELY ON THE PREMISE THAT SUFFIX *-sai* IS A NOMINALIZER (CA:629). Many Pirahã clauses that would be analyzed as embedded in a language like English involve a verb marked with the suffix *-sai*. In *CA*, Everett refers to such clauses as 'nominalized clauses', glosses *-sai* as a nominalizer (p. 630, ex. 32),³ and notes that such clauses are incompatible with verbal inflection. These claims in *CA* represent points of consistency between *CA* and Everett's earlier work (e.g. *HAL*:277–80). In *CA*, the status of *-sai* as a nominalizer is a crucial premise for two arguments against the existence of clausal embedding in Pirahã.

CA's argument against embedding from word order: Pirahã is an SOV language. If we accept the premise that *-sai* clauses are nominal, then if a *-sai* clause can serve as a verb's complement, it should precede the verb as other nominal complements do. The fact that such clauses follow the verb is presented in *CA* as an argument that they are not complements, but independent sentences.

CA's argument against embedding from clitic agreement: *CA* notes that 'whereas normally there is optional clitic agreement available with any direct object, there is never any clitic agreement with' *-sai* clauses (p. 629). Because *-sai* clauses are nominal, one might expect them to trigger clitic agreement as other nominal complements do. If *-sai* clauses are independent utterances, however, no such expectation is raised, even if they are analyzed as nominal.

New claim in E09: In E09, Everett retracts the claim that the suffix *-sai* is a nominalizer (§2.2, pp. 408ff.). He claims instead that it marks OLD INFORMATION, and that it is fully compatible with verbal inflection. E09 continues to maintain that *-sai* clauses are unembedded in Pirahã, but no longer claims that they differ in syntactic category or verbal morphology from other clauses.

Consequences of E09's new claim for CA's arguments against embedding: If *-sai* clauses are no longer viewed as nominal, both the argument based on postverbal word order and the argument from lack of clitic agreement disappear. The fact that a nominal complement must be preverbal does not necessarily entail that clausal complements will be linearized the same way. Likewise, the fact that clitic agreement is available with nominals raises no expectation that such agreement should be available with clauses. Both of the arguments cited above rest on the premise that *-sai* clauses are categorially identical to normal nominals, so that a different kind of explanation (e.g. parataxis) must be sought for the ways in which they are said to pattern differently.

The concealed retraction of CA's argument against embedding: E09 not only has undermined two of *CA*'s arguments against embedding without commenting on this fact, but it also presents an inaccurate picture of the 'paper trail' concerning these topics. E09 gives the impression that the analysis of *-sai* as a nominalizer was abandoned after *HAL* and *DISS*, and that its new proposals concerning *-sai* were already presented in *CA*, as the following quotations show:

³ As noted in NP&R (p. 361), *CA* sometimes glosses this morpheme as 'nominative', but this appears to be a typographical error, as it is identified in the text of *CA* (following *HAL* and *DISS*) as a nominalizer.

In Everett 2005 [CA] I analyze them [-*sai* clauses] as juxtaposed old information. NP&R spend considerable effort to show that my original analysis was better and that -*sai* is indeed a nominalizer. (E09:408)

NP&R argue that -*sai* clauses violate my claim that there is no embedding in Pirahã. If they and Everett 1986 [HAL] are correct that this is a nominalizing suffix, then it would indeed be plausible to conclude that -*sai* marks embedding as nominalizers often do . . . (E09:410)

As I observed in Everett 2005 [CA], the distribution of -*sai* in quotatives is strange if it is a nominalizer/subordinator, but it is expected if it is a marker of old information. (E09:418)

In reality, as we have just seen, CA not only failed to claim that -*sai* clauses are ‘juxtaposed old information’, but quite crucially and explicitly analyzed them as nominal.⁴ E09’s incorrect description of the record is harmful not only in its own right, but also because of its potential to mislead. Only by revisiting CA can one learn that the exact opposite claim was a crucial premise for two of CA’s arguments against embedding.⁵

2.2. AN ARGUMENT AGAINST EMBEDDING THAT RELIES ON PREMISE THAT MORPHOLOGY OF *gái* ‘SAY’ IS EXCEPTIONAL (CA:629). In CA, Everett wrote: ‘The verb “to say” (*gái*) in Pirahã is always nominalized. It takes no inflection at all. The simplest translation of it is as a possessive noun phrase “my saying,” with the following clause interpreted as a type of comment’ (p. 629).

CA’s argument against embedding from the behavior of *gái*: If Pirahã lacks clausal embedding, but nonetheless has ways of expressing a speech act along with its contents, then it must find syntactic strategies that differ from those of languages that allow embedding (CA:628). The fact that Pirahã speakers adopt an unfamiliar strategy involving a nominalized verb and a ‘juxtaposed clause’ thus constitutes an argument against the availability of embedding.

New claim in E09: In NP&R, we took issue with CA’s claim that the verb *gái* ‘say’ is never inflected and is always suffixed with -*sai* because of the existence of numerous published counterexamples. In E09, Everett makes no mention of our findings, instead asserting that CA had never claimed that the verb ‘say’ is obligatorily uninflected. According to E09, CA claimed only ‘that ONE FORM of the verb’ (emphasis ours) has this property, so that the proposals of CA are not contradicted by the fact that ‘[o]ther forms of the verb “to say” are inflected’ (E09:419, n. 9).⁶ As we have seen, however, CA was unequivocal about the facts.

In support of its new empirical claim E09 presents an example in which *gái* occurs with both -*sai* and morphology that is described as inflectional, and in which its accompanying clause is also marked with -*sai* (E09:418, ex. 38b).

⁴ Because the status of -*sai* as a nominalizer was a crucial premise for two arguments against embedding, CA devoted a full paragraph (p. 629) to an attempted reconciliation of this claim with the idea that -*sai* clauses are unembedded (‘Some readers may still find it difficult to accept the idea of analyzing nominalized clauses of the type just mentioned apart from embedding because the two are so closely associated in many languages . . .’).

⁵ Needless to say, NP&R did NOT ‘spend considerable effort’ showing ‘that -*sai* is indeed a nominalizer’ (E09:408), since that analysis was unquestioned in CA. The claim that -*sai* marks old information and is not a nominalizer was advanced for the first time in Everett 2007, an unpublished predecessor to E09. In the published version of NP&R, we did take up Everett’s (2007) claims concerning ‘old information’ quite briefly, in n. 23 (p. 372), added at the request of a referee. As can easily be verified, however, the thrust of that footnote was neutral concerning the proposal.

⁶ Though it is not clear exactly what distinctions are being drawn among forms of *gái*, it appears to be claimed that it is a toneless variant (*gai*) that is allowed to be inflected.

Consequences of E09's new claim for CA's arguments against embedding: Since the absence of nonnominalized forms of *gái* served in CA as the key premise of an argument against embedding, this argument against embedding dissolves.

The concealed retraction of CA's argument against embedding: Because E09 suggests incorrectly that CA had limited the scope of its comments to a single form of the verb 'say', if one is unfamiliar with CA (and NP&R's objections to its claims about *-sai*), one will not suspect that E09 had undermined one of CA's major arguments against embedding.

2.3. TWO ARGUMENTS AGAINST EMBEDDING FROM WH-CONSTRUCTIONS.

CA's argument against embedding from the absence of long-distance questions (p. 629): CA claims that Pirahã has WH-words that 'must always be initial in the phrase'. The language allows no structure that might suggest long-distance WH-movement from an embedded clause. The nonextractability of interrogative WH-words from clauses that one might view as embedded is explained if they are not embedded in the first place.

CA's argument against embedding from the presence of WH-words in correlatives (p. 629): Pirahã has a correlative construction, in which the second clause contains a WH-word. The fact that the second clause can also be parsed as a freestanding question constitutes one of CA's two arguments that it is not embedded (though, as noted in NP&R (p. 381), the logic of this argument is questionable).

New claim in E09 (from §2.3, 'Correlatives', p. 412): The element *goó*, found in both questions and correlatives, and glossed in CA as a WH-form ('information question' in CA), is not a WH-word at all. Instead, E09 claims, '[s]tudy of it in the years since Everett 1986 [HAL] reveals that it marks focused or highlighted (e.g. "that very one") words, one per clause, either subject or object. In questions it marks a pronoun as focused' (E09:413).⁷

Consequences of E09's new claim for CA's arguments against embedding: For questions, E09 does not discuss how a clause that contains no WH-word can receive interrogative force (i.e. how 'You saw THAT VERY THING', with narrow focus on the declarative object, is interpretable as 'What did you see?'). If *goó* is not a WH-word but a focus marker, the constructions described in CA as correlatives are presumably no longer to be understood as such.

CA's arguments against embedding based on WH-movement and interrogative interpretation have thus disappeared, because they are no longer grounded in any coherent proposal concerning the syntax or semantics of the relevant constructions.

The concealed retraction of CA's argument against embedding: E09's reference to 'the years since Everett 1986 [HAL]' once again suggests inaccurately that E09 is merely defending CA's claims against more antique analyses from HAL and DISS, when in fact E09 is presenting an utterly novel empirical proposal that undermines two of CA's (2005) arguments against embedding.

2.4. AN ARGUMENT AGAINST EMBEDDING FROM TEMPORAL CLAUSES.

CA's argument against embedding from the intonation of temporal clauses: CA (p. 630) claims that Pirahã temporal clauses are independent and unembedded. The only evidence offered in favor of this analysis is the fact that 'there is almost always a detectable pause between the temporal clause and the "main clause"'.⁷

⁷ Though relativization is restricted to subjects and objects (HAL:277), WH-questions are not (HAL: 241–45). E09 does not comment on this difference.

New claim in E09 (p. 423): Responding to the fact that ‘some researchers have claimed that whether Pirahã has recursion could be cleared up with intonational data’,⁸ Everett writes in E09: ‘intonational evidence for sentence structure will likely not be any more straightforward for Pirahã than it is for English, in which there is still plenty of debate as to whether intonation maps directly to sentence structure, semantics, pragmatics, or combinations thereof . . . Even though there is much work yet to do on Pirahã intonation, what we already know about intonation crosslinguistically leaves little expectation that it will turn out to be the “smoking gun” of recursion in Pirahã’ (p. 423).

Consequences of E09’s new claim for CA’s argument against embedding: If we adopt a skeptical stance of this sort with respect to the use of informal observations such as ‘detectable pause’ in arguments in favor of recursive structures, the same stance must be taken for comparable arguments AGAINST recursive structures. CA’s sole argument that temporal clauses are unembedded thus disappears if we accept E09’s skepticism about the relevance of such data in light of the current state of research on Pirahã intonation. This de facto retraction, though not concealed, is also not overtly noted either.⁹

3. HOW WELL SUPPORTED ARE E09’S NOVEL EMPIRICAL CLAIMS? CA’s case against embedding in Pirahã was central to Everett’s claim that the syntax of the language is governed by a cultural IMMEDIATE EXPERIENCE PRINCIPLE (IEP). In NP&R, we argued that CA’s arguments in favor of a general ban on embedding in Pirahã were at best weak, and in many cases wrong, and that almost all the constructions and restrictions presented as evidence for a ban on embedding had counterparts in languages with no such general ban.¹⁰ If NP&R is correct, CA is left with no substantive case against embedding. E09 represents itself as a response to NP&R that defends the claims of CA. But as we have just seen, if E09 is actually correct, then again almost nothing remains of CA’s arguments against embedding. As we noted earlier, the sole argument against embedding from CA (already present in HAL) that remains intact and unchallenged by E09 is the claim that possessor recursion is impossible in Pirahã, which by itself surely does not argue for a general ban on embedding.¹¹

As far as we can tell, all that remains is to determine which set of considerations—NP&R’s critique of CA’s arguments or E09’s novel empirical claims—actually administers the coup de grâce to the ban on embedding. To help decide the matter, we first ask whether the new empirical claims in E09 are supported by relevant evidence.

⁸ Presumably a response to NP&R:372, n. 22, and to the final paragraph of NP&R:398, and to Slobin 2007.

⁹ E09 offers an informal discussion of the semantics of such clauses that is said to favor an unembedded analysis, which we do not take up here. This discussion also includes the assertion that the marker glossed as ‘temporal’ in CA and earlier work is actually a completive aspect marker—a reanalysis that does not entail, however, that embedded temporal clauses are missing from Pirahã.

¹⁰ We also argued that the proposed link between the IEP and grammar had not been formulated coherently in the first place, a topic that we do not address in this response.

¹¹ E09’s discussion of possessor recursion is puzzling. CA attributed the absence of possessor recursion in Pirahã to the fact that ‘[e]very Pirahã knows every other Pirahã . . . Therefore one level of possessor is all that is ever needed’ (p. 630). NP&R pointed out that these considerations, even if they could somehow block constructions with possessor recursion, should equally block simple possessive constructions of one level (which Pirahã does exhibit). E09 responds with the assertion ‘My analysis does not predict anything of the sort’ (E09:421), and then continues by merely noting that ‘the use of possessors can be important even when everyone knows everyone’. E09 never returns to the question of how ‘everyone knowing everyone’ manages to prevent the Pirahã from saying ‘Kó’of’s son’s daughter’ while not blocking ‘Kó’of’s son’.

Unfortunately, as was the case with *CA*'s own arguments, the answer is generally negative. The following subsections correspond to the first three subsections of §2.

3.1. *-sai* MARKS OLD INFORMATION, IS NOT A NOMINALIZER, AND IS COMPATIBLE WITH INFLECTION. E09 (p. 409) refers readers to Everett's earlier unpublished reply (Everett 2007; see also n. 5 above) and to work in progress (cited as Gibson et al. 2009) for discussion of the claim (otherwise backdated to *CA* in E09) that '-*sai* is not a nominalizer, but a marker of old information'. Everett (2007), however, offered no evidence for this characterization of *-sai*, and E09 adds none either, beyond unsupported assertions that various *-sai*-marked clauses presented in the examples are in fact old information.¹²

For the novel claim that *-sai* is not a nominalizer and 'can take a full range of inflection' (p. 410), E09 offers only the single example 7. The claim is not accompanied by any morphological analysis or further description of the verbal morphology seen in example 7 (building, for example, on the detailed template for verbal morphology presented in *HAL*:288).

3.2. *gái* 'SAY' IS OBLIGATORILY SUFFIXED WITH *-sai*. No information is provided in E09 about the circumstances under which *gái* 'say' may and may not be inflected, beyond the unclear statement that the constraint cited in *CA* 'is a reduction on just that tonal form of the verb' (p. 419, n. 9). Contrary to what one expects when two morphological claims are being contrasted, no paradigms are presented to illustrate the generalization.

3.3. *goó*, PREVIOUSLY GLOSSED AS A WH-WORD, IS ACTUALLY JUST A FOCUS PARTICLE. The only evidence presented in E09 in support of this claim is a single example in n. 5 (p. 413), in which the sequence *Kaxaxái hi goó* is glossed as 'name 3 FOC', but translated as 'Kaxaxái [topic]'.¹³

E09 also claims, for the first time in the published literature, that Pirahã is a language with overt WH-movement. This novel claim contradicts *HAL* (p. 245), which clearly identified Pirahã as a WH-in-situ language. NP&R noted that if Pirahã is a WH-in-situ language, it would render irrelevant *CA*'s attempt to employ the specific absence of LONG-DISTANCE WH-movement as an argument against clausal embedding. In Everett 2007:13, this was the only one of NP&R's criticisms conceded to be correct, and the discussion in *CA* was called 'an especially weak argument for parataxis'. E09, however, now asserts that *HAL* (and, implicitly, also Everett 2007) was in error, and that Pirahã 'DOES allow overt WH "movement"' after all (p. 416).

E09's evidence for this novel claim, however, consists of only two interrogative examples (30b and 31b), in which a left-peripheral interrogative word is claimed to be parsable as either subject or object. The mere presence of an interrogative word at the left edge of a sentence, however, is not an argument for WH-movement, especially in light of the numerous examples from *DISS*, *HAL*, *CA*, and E09 itself that suggest that WH-in-situ is the norm in Pirahã. In fact, since Pirahã does allow noninterrogative

¹² E09 (p. 410) takes up the question of why neither *HAL* nor *DISS* (nor, we might add, *CA*) contains any mention of the additional distributional possibilities for *-sai* discussed in E09, and attributes this fact to 'an overreliance on the elicitation of individual sentences, rather than on detailed surveys of Pirahã discourse'. E09 is silent about what 'detailed survey of Pirahã discourse' provided a basis for its new conclusions about *-sai*.

¹³ *HAL* (p. 239) presents *go* as the most common WH-particle in Pirahã, with *goó* the result of affixing the locative marker to *go*. The result is most often translated as 'where'. E09 does not discuss the apparent discrepancy. *HAL* (p. 240) also notes that *go* may occur on its own, without a pronoun, with the meaning 'what' or 'what's up?'.

topical and focused constituents to be fronted (*HAL*:201ff.), the OSV parses of 30b and 31b might reflect this more general reordering possibility, rather than WH-movement.¹⁴

Questionable as well is the compatibility of E09's assertion that Pirahã has WH-movement in E09:§2.5 with E09's claim in §2.3 that the particle formerly glossed as WH is 'not a WH/relative marker per se', but 'marks focused or highlighted (e.g. "that very one") words, one per clause, either subject or object' (E09:413).¹⁵ If a language lacks WH-forms altogether, it is not clear how one detects a process of WH-movement.¹⁶

4. EVIDENCE, CLAIMS, AND LOGIC. As we noted in the introduction to these comments on E09, in discussing any set of claims, it is crucial to chart the logical connections among them, and the ways in which specific types of evidence are (or are not) relevant to these connections. The previous sections have illustrated this point by highlighting E09's de facto retractions of the claims it purports to defend and the weakness of the evidence supporting E09's new proposals. Similar issues arise throughout E09.

Consider, for example, an unnoticed consequence of E09's new claim that *-sai* is not a nominalizer. As E09 notes correctly, on this assumption, there is nothing perplexing about examples like *HAL*:259, ex. 223 (NP&R's 39), repeated below, in which *-sai* is suffixed to *gái* 'say' rather than to the verb that we would describe as embedded.

- (1) kohoibíhái hi **gái-sai** hi hi **xogi-hiab-iig-á** gáihí
 Kohoibíhái 3 say-NOMLZR 3 3 want-NEG-CONT-REM that
 'Kohoibíhái said (that) he's not wanting that.'

In NP&R, because we granted *CA*'s assumption that *-sai* is a nominalizer, a puzzle arose, which we attempted to resolve with the suggestion that *gái-sai* in examples such as 1 is a possessed nominalized subject of a null-copular sentence. In E09:§2.6, Everett criticizes our suggestion as 'heavy lifting' and 'complex' (E09:419), but fails to note that the ONLY REASON we were even puzzled by examples like 1 was the fact that we HAD ACCEPTED *CA*'S ANALYSIS OF *-sai* AS A NOMINALIZER. If *-sai* is not a nominalizer but an 'old information marker', an analysis of 1 as a straightforward instance of clausal embedding is immediately available, and this 'trouble spot' for NP&R disappears. As we noted in the previous section, we are reluctant to accept the claim that *-sai* clauses are not nominalized, for lack of appropriate evidence. Nonetheless, there is no incompatibility between NP&R's view of embedding in Pirahã and the possibility that *-sai* is something other than a nominalizer. It is striking that E09 misses the connection between

¹⁴ Conceivably, an argument against embedding could be reconstructed on the basis of this more general fronting process, if objects cannot be extracted out of (putative) embedded clauses. Note, however, that sharp restrictions on long-distance fronting are found even in languages where the existence of embedded clauses is not in doubt (e.g. Russian).

¹⁵ These deviations from SOV have prosodic implications, according to *HAL*, and it would be important to know whether the object and subject parses for 30b and 31b show comparable prosodic differences.

¹⁶ NP&R cited *CA* for the important observation (reminiscent of Bengali, as discussed by Bayer (1996)) that a *-sai* clause must be preverbal when it contains a wide-scope WH-phrase. E09 retracts this empirical claim with the following remarks: 'I stated this unclearly in [*CA*]. That is a common order. But it is not required' (p. 418). In fact, *CA*'s discussion of these word-order data was not only clear, but served as the basis for a further argument against embedding—leaving no doubt about what the author of *CA* had in mind: 'In a question about 25 [25a = NP&R's 13], the order of the clauses must be that in 26 [NP&R's 28]. This follows if there is no embedding' (p. 629). The obligatoriness of the ordering was crucial to the discussion that followed. E09's misrepresentation of *CA* once again conceals what is actually a RETRACTION of an important claim.

its new empirical claim about *-sai* and one of its criticisms of NP&R: the fact that the acceptance of the claim removes all basis for the criticism.

In addition to noting the logical connections among otherwise separable claims (e.g. the existence of embedding in Pirahã and the status of *-sai* as an old-information marker), it is often equally important to notice when proposals are linked inextricably and cannot be evaluated separately. One such situation arises in E09's discussion of RECURSION. As NP&R (n. 11) pointed out, no construction in a given language (be it English or Pirahã) constitutes a demonstration of recursion or its absence independent of the analysis that this construction receives in the context of a particular theory. Hauser, Chomsky, and Fitch (2002, HC&F) presupposed, rightly or wrongly, an approach to syntactic structure in which all phrase structure—not just clausal embedding or possessor recursion—serves as a demonstration of recursion. We had this in mind when we noted in NP&R that if Pirahã really were a language whose fundamental rule is a nonrecursive variant of Merge, no sentence in Pirahã could contain more than two words.¹⁷

E09:§6.2 (pp. 437–38) criticizes us, in effect, for not considering alternative theories of grammar without Merge in which a statement of the form 'Pirahã lacks recursion' might have different empirical consequences. But one doesn't compare different syntactic theories whose ingredients differ by holding constant the slogan 'no syntactic recursion' and seeing how this slogan might be understood differently by the adherents of these theories. What should be held constant instead are the questions and puzzles whose resolution the theories are believed to facilitate. If an approach to grammatical structure such as 'old-fashioned transformational generative grammar', 'linear-precedence rules', or 'construction grammar' (E09's examples) permits us to characterize the similarities and differences among languages more insightfully than the approach presupposed by HC&F, we might indeed have an argument for abandoning some of HC&F's assumptions. In that case, one would want to reexamine the answers suggested by these alternative frameworks to the questions discussed by HC&F, to see if any new conclusions are warranted—an examination not undertaken by E09.

Finally, just as it is important to distinguish separable from inseparable ideas when considering a proposal, it is also important to make the most basic distinction of all: between argument and nonargument. In our discussion of quantification and numerals in Pirahã, for example, NP&R pointed out that Frank and colleagues' (2008) conclusion that Pirahã lacks number words offered no explanation for the striking difference in results between conditions in which subjects counted ascending vs. descending quantities. Consequently, we wrote, their conclusion is 'premature, since no explanation is offered for the difference in findings from the two conditions' (NP&R:387). E09 responds by quoting from Frank et al. 2008:819 the statement, 'We show that the Pirahã

¹⁷ E09 (p. 438) continues to assert that a language without recursive instances of Merge must constitute a counterexample to what he calls 'UG with falsifiable predictions', at least if HC&F are correct about the place of recursion in the human language faculty. In making this assertion, E09 disregards responses that already appear in NP&R. As we stressed there, the study of restrictions on the recursive potential of Merge continues to be the 'bread and butter of research in syntax' (NP&R:367). Though we have never seen an example of a language with a maximum sentence-length of 2, there is no a priori reason to exclude the possibility that Merge in some language might be subject to constraints so severe that the recursive potential of the rule can never be displayed in any actual utterances. Such a language would be a curiosity, but it would support, not falsify, those theories of UG that countenance the relevant constraints. It should also be borne in mind that, though hypotheses should be falsifiable, it is not required that they be falsifiable by Pirahã.

have no linguistic method whatsoever for expressing exact quantity, not even ‘one’’, and then asserting ‘I do not see how we could have explained our claim more explicitly or clearly for NP&R’ (E09:424)—but that, of course, is not an argument (nor does it help explain the unexpected asymmetry in the results).

5. FINAL REMARKS. We began this commentary with a brief remark about the publicity that has been generated on behalf of Everett’s claims about Pirahã. Although reporters and other nonlinguists may be aware of some ‘big ideas’ prominent in the field, the outside world is largely unaware of one of the most fundamental achievements of modern linguistics: the three-fold discovery that (i) there is such a thing as a FACT about language; (ii) the facts of language pose PUZZLES, which can be stated clearly and precisely; and (iii) we can propose and evaluate SOLUTIONS to these puzzles, using the same intellectual skills that we bring to bear in any other domain of inquiry. This three-fold discovery is the common heritage of all subdisciplines of linguistics and all schools of thought, the thread that unites the work of all serious modern linguists of the last few centuries, and a common denominator for the field.

In our opinion, to the extent that CA and related work constitute a ‘volley fired straight at the heart’ of anything, its actual target is no particular school or subdiscipline of linguistics, but rather ANY kind of linguistics that shares the common denominator of fact, puzzle, and solution. That is why we have focused so consistently on basic, common-denominator questions: whether CA’s and E09’s conclusions follow from their premises, whether contradictory published data has been properly taken into account, and whether relevant previous research has been represented and evaluated consistently and accurately. To the extent that outside eyes may be focused on the Pirahã discussion for a while longer, we would like to hope that NP&R (and the present response) have helped reinforce the message that linguistics is a field in which robustness of evidence and soundness of argumentation matter.

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