

Evolving Syntax: Small Clauses, Subjacency, and Some Compounds

“Nothing in biology makes sense except in light of evolution.” (Theodosius Dobzhansky)

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Many properties of present-day syntax *look* arbitrary and abstract, including some central postulates of syntactic theory, two of which I focus on in this talk: the small clause core of every clause/sentence (VP-internal subject hypothesis), and Islandhood/Subjacency. Some researchers have used such properties of syntax to claim that a gradualist approach to syntax is impossible – the principles of syntax are just too abstract for evolutionary forces to target them. As put in Lightfoot (1991) “subjacency has many virtues, but ... it could not have increased the chances of having fruitful sex.” My paper stands this argument on its head, and proposes that decomposing syntax into intermediate evolutionary layers/steps not only makes syntax compatible with evolutionary forces, but it also renders it more tangible and less arbitrary.

My argument proceeds on three fronts. First, I identify a set of marginal syntactic constructions available cross-linguistically, which I hypothesize to be ‘living fossils’ from a proto-syntax stage in the evolution of human language. Next, there is evidence in present-day syntax that these proto-syntactic constructs provide a foundation upon which complex syntactic structures are built, leading to quirks and complexities that best befit a scenario of evolutionary tinkering. Finally, I seek corroborating evidence for this proposal in the studies of language acquisition, aphasia, and language representation in the brain.

The following are some marginal constructions that can be analyzed as ‘living fossils’ of a simpler stage of syntax, because they exhibit rudimentary syntax/semantics (Progovac 2006).³ These include root small clauses, some of them formulaic (e.g. *Problem solved; Family first!; Him worry?!;* Serbian: *Stigla pošta. (Arrived mail); Pala vlada, (Fell government); Prošo voz. (Gone train); Pala karta. (Fell card)*) and V(erb) N(oun) ‘exocentric’ (non-headed) compounds (e.g. *pick-pocket, turn-coat, hunch-back, dare-devil;* Serbian: *ispi-čutura (drunkard), guli-koža (who rips you off), cepi-dlaka (who splits hairs), vuci-batina (good-for-nothing), muti-voda (who muddies waters)*). I analyze VN compounds as essentially small clauses, but with even cruder predication structure. Exocentric compounds, which evoke striking images, often derogatory and vulgar, arguably provide evidence of ritual insult strategies, which is especially the case with Serbian ancient names. Based on these compounds, one can even formulate a coherent argument that sexual selection played a role in shaping (this rudimentary) syntax (Progovac and Locke).

Another type of ‘living fossil’ are loose/paratactic combinations of small clauses, often used as formulaic expressions (as are also some of the small clauses illustrated above):

(1) *Na psu rana, na psu i zarasla. Preko preče, naokolo bliže. (Serbian)*
On dog wound, on dog healed. Across shorter, around closer.

(2) *Nothing ventured, nothing gained. Easy come, easy go. Monkey see, monkey do.*

Formulaic language in general, and especially swear words, is processed by the more ancient parts of the brain, including basal ganglia and limbic structures (e.g. Code 2005). While the issue remains controversial, many have analyzed children’s early two-word utterances as root small clauses (or root

³ Living fossils are species that have changed little from their fossil ancestors in the distant past, such as e.g. lungfish. See Bickerton 1990 and Jackendoff 1999 for the idea of language fossils.

infinitives). It has also been shown by experiment that exocentric compounds precede the headed counterparts in first language acquisition (e.g. Hecht & Mulford 1986).

Just as small clauses and exocentric compounds can be analyzed as simplest syntactic combinations of an argument and a predicate, their combinations in (1-2) can be seen as simplest possible combinations of clauses, involving a paratactic/exocentric/non-hierarchical type of attachment, resembling adjunction (for arguments that adjunction in modern languages is an evolutionary fossil, see Jackendoff 1999, 2002). None of these constructions permit Move, not even the productive (non-formulaic) unaccusative root small clauses in Serbian:

(3) *Kada stigla pošta? *Ko umro? *When him retire? *Whom worry?

These small clauses are also not recursive – they cannot embed (one within another):

(4) *Mislim (da) pala vlada. *I believe/expect case closed. *Him worry me first.

If these are indeed fossils of a proto-stage of syntax, then one can explain why every sentence is built upon a layer of small clause, as well as why there are Subjacency effects.

In this scenario, TP/sentence would not have arisen from scratch, designed in an optimal way (e.g. Chomsky 2005), but rather it would have been superimposed upon what was already there: the small clause layer, as if the building of the sentence retraces evolutionary steps (Progovac 2008, In Press; To Appear). According to Vygotsky (1979/1960, 155-156) “brain development proceeds in accordance with the laws of stratification of construction of new levels on old ones... Instinct is not destroyed, but ‘copied’ in conditioned reflexes as a function of the ancient brain, which is now to be found in the new one.” As put in Bickerton (1998, 353) “the creation of a new neural pathway in no way entails the extinction of the previous one.”

As for Subjacency, notice that, according to Traugott & Heine (1991) and Deutscher (2000), grammaticalization of subordination (7) proceeds through three stages, including parataxis (adjunction) (5) and coordination (6), from least syntactically integrated to most integrated:

- (5) a. *He is a linguist - (as) you know.* b. *He is a linguist – [as you know] [–as Mary knows].*
(6) a. *He is a linguist, and you know it.* b. *He is a linguist, [and you know it,] [and Mary knows it].*
(7) a. *You know that he is a linguist.* b. *You know [that Mary knows [that he is a linguist.]]*

If comparable stages characterized language evolution, with adjunction and coordination constituting intermediate steps between separate utterances (no syntactic integration, no Move) and subordination (full integration, free(er) Move), then such evolutionary tinkering left us with multiple possibilities which partly overlap in function (redundancy) (5a,6a,7a).⁴ Importantly, in addition to allowing Move, subordination also provides a recursive mechanism for embedding multiple viewpoints one within another, unavailable with either coordination or adjunction, privileging (7b) over (5b and 6b) in a concrete and tangible manner, rendering subordination a plausible target for natural/sexual selection, and rendering Subjacency just an epiphenomenon of evolutionary tinkering.

⁴ Notice that clausal conjuncts and adjuncts are parsed as separate intonation-phrases (Selkirk 1978, Stowell 1981, Zec & Inkelas 1990, An 2007), and “merge in a different plane” (Chomsky 2001, Goodall 1987). There is still no satisfactory unified account of Subjacency as a principle of syntax (Belletti & Rizzi 2000, Szabolcsi & den Dikken 2003, Boeckx & Grohmann 2007).