

Chomsky, Noam (2017). Language architecture and its import for evolution. *Neuroscience and Biobehavioral Reviews* 81:295–300.

Read the abstract. It really functions as the first paragraph of the article. In particular, it defines “I-language” (“internal languages”) and “FL” (“faculty of language”).

Reading notes:

p. 295, opening paragraph: Chomsky is alluding here to the way Linguistics was approached before the 1960s, which largely didn’t consider the question of how language is acquired to be of interest. In various ways, including the idea that language could just arise as a kind of behavior (reinforced or discouraged). There’s plenty more one can read about this, but that’s what Chomsky was referring to.

p. 295, second paragraph: This defines the “Basic Property” (essentially, what the theory of language competence is supposed to account for).

p. 296: “kya” is a unit of thousands of years before now.

p. 296: Chomsky mentions the function of the Principles & Parameters framework in accounting for acquisition, but does not elaborate. The idea there is that by assuming that there are constant principles and only some small-ish number of parameters (different settings a language can manifest), the task of acquiring a language becomes tractable. A child can have a kind of metaphorical checklist of properties to look for in the input to determine if the language is head-initial or head-final, etc. That means that the possible variation between languages is more constrained than it appeared.

Question 1. On p. 297, Chomsky hypothesizes that the simplest system has an operation Merge, which takes two objects and makes a new object from them. He gives the example of applying Merge to *read* and *books*. This forms some combined object. This object represents a subtree, a part of a syntactic structure. What label would you have applied to that subtree if you were to draw it in a prior syntax class? And what *is* that combined object (according to Chomsky’s description of Merge in the prior paragraph)?

Question 2. Chomsky continues, envisioning a partial tree structure for the words *he will read which books*, and then applying Merge to this one object by itself, by picking a subtree inside of that object (*which books*) and Merging it with the whole object, to yield *which books he will read which books*—where *which books* winds up in kind of in two different places now as a result. There is a name we used in previous syntax classes for Merge when it happens this way in this context; what is it?

Question 3. On p. 298, Chomsky builds some examples around the sentence *the boys expect to meet each other*. This example is actually fairly carefully crafted. First, the main verb is *expect*, which is one of a small class of verbs that can be used as an ECM verb (*I expect them to leave*), as a control verb (*They expect PRO to leave*). or as a verb embedding a tensed clause (*I expect that they left*). It also has *each other* as the object of the embedded verb; *each other* behaves like an anaphor (like *myself*, *themselves*) insofar as it must relate to a local antecedent: *I said they saw each other*, **They said I saw each other*. So, Chomsky uses *each other* to diagnose what is being interpreted as the subject of the embedded verb. The first example is *the boys expect to meet each other*, and the interpretation is that the boys meet each other. Though it's not the case that *the boys* is the subject of the embedded clause, in fact, because the boys are being interpreted both as the ones experiencing the expectation and as the ones experiencing the meeting. So, what is the subject of the embedded clause in this example?

Question 4. Chomsky then compares this to *I wonder who the boys expect to meet each other*. The verb *wonder* relates an experiencer and a question. The question is effectively “Who do the boys expect to meet each other?” What role does *who* play here? (E.g., is it an experiencer for one of the verbs? A theme for one of the verbs? What semantic role is it playing?) What was playing that role in the previous sentence?

Question 5. Chomsky uses this question (*who do the boys expect to meet each other?*) and the more complex one *which one of his paintings did the gallery expect that every artist likes best?* to demonstrate that something can have roles to play in two different places in the structure. In both of these, the *wh*-phrase is pronounced in one place, but interpreted both there and in another place. The interpretive effect in its pronounced position is something like a quantifier (“for which people *x*, ...”) and in the other position as something like a restricted variable (“the people *x*”). This indicates to Chomsky that the basic (interpreted) representation needs to have the *wh*-phrase in both places. Briefly recap how the use of *every* and the bound pronoun *him* in the more complex example necessitates the interpretation of the *wh*-phrase in the lower position.

Question 6. On p. 298, Chomsky says that Merge “imposes no order on the merged elements. . . We have to impose linear order on words when we speak.” This is a version of the overall theme: the system that builds hierarchical structures for semantic interpretation is very simple. And this is the part that seems to be human-specific. Yet, languages seem more complicated. The hypothesis is that source of the complexity we see is not the language system exactly, but rather the constraints imposed by the systems required for externalization. Speculate (briefly, please) on how human language might be different if it were possible to telepathically transmit hierarchical structures to one another without the need to say things in order (with some parts expressed before other parts).