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Possibility #1: Sentence is a sui generis category

This is the traditional view.

In generative syntax this has been realized as analyzing the special category S as expanding as a subject-predicate sequence of NP-VP (or NP-XP for languages with non-verbal sentences).

Chomsky (1957) characterizes the phrase structure rule component of the grammar as being “defined by a finite set Σ of initial strings and a finite set F of ‘instruction formulas’ of the form $X \rightarrow Y \dots$ ”, and describes phrase structure grammars as $[\Sigma, F]$ grammars. The concept of an initial symbol is thus taken to be part of the definition of the phrase structure component of the grammar. This initial symbol is the sentence, as is made clear by the discussion over whether the set Σ consists just of Sentence or might include distinct categories Declarative Sentence, Interrogative Sentence, etc. Another indication of the special status of the sentence/clause in this early work is the treatment of recursion. While recursion was generally encoded in the phrase structure rules, clausal recursion was analyzed by generating separate sentences, and then embedding one in the other by a generalized transformation.

In **Chomsky (1965)** the use of a distinct formal device for clausal recursion was abandoned, but the uniqueness of the sentence was retained.

Chomsky (1970), which introduced \bar{X} theory, stated the “initial rule” of the base to be $S \rightarrow N^r V^r$, with no attempt to incorporate the sentence into the \bar{X} system.

Hornstein (1977) argued for retaining the special status of S within the \bar{X} system.

Bresnan (1982)—another \bar{X} -based approach which gave S a sui generis status.

One of the strengths of the sui-generis view of the sentence is that it lends itself to an analysis of non-configurational languages. If S is a unique kind of element, it is not constrained by \bar{X} theory, and flat structures of the kind found in non-configurational languages are not ruled out.

Hale (1981), the source of the Lexical Structure/Phrase Structure theory of non-configurationality, uses S precisely in this way. He distinguishes between what he calls \bar{X} languages (those whose phrase structure is determined by \bar{X} principles), and W^* languages (those with a phrase structure rule something like $S \rightarrow W^*$, where W =word). This theory is quoted approvingly by Chomsky (1981). (Some early ideas in this direction can be found in **Hale 1973**.)

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Possibility #2: Sentence is an X^{\max} category

Subpossibility #2.1: Sentence is V^{\max}

Jackendoff (1977), trying to structurally generalize subject-of-sentence with possessor-of-NP (assuming the possessor is specifier of NP), proposes that sentence is the maximal projection of V. VP is a submaximal category, i.e. not a full phrase. (Auxiliaries are also specifiers.)

Gazdar, Pullum, & Sag (1982) have an analysis similar to Jackendoff's (sentence= V' , “VP”= V'). The only difference is that they analyze auxiliaries as verbs.

Pollard & Sag (1994) consider both “S” and “VP” to be maximal projections of V.

Assimilating the sentence to \bar{X} structure has the advantage of resulting in a more constrained model of phrase structure. The primary drawback to the V^{\max} analysis is that, if the sentence is a maximal projection, the constituent usually identified as VP (V' under this analysis) is not a maximal projection. Put differently, this approach is a break not only with the tradition of treating the S as a sui generis construction but also with the tradition of treating the structure of configurational languages in terms of a bifurcation between subject and predicate. The predicate is consigned to the status of simply being a smaller piece of the sentential construction.

Subpossibility #2.2: Sentence is I^{\max}

(with V-to-I, either by movement or lexically, in many languages)

Chomsky (1981) mentions this as a possibility.

Falk (1984) argues for this analysis on the basis of head-like properties of auxiliaries.

Chomsky (1986) popularized this analysis, although without argument. This implementation has the advantage of providing a full \bar{X} structure.

This analysis is superior to the V^{\max} analysis in that it maintains the traditional notion of VP as a maximal phrasal category in its own right, and the subject-predicate bifurcation of the sentence.

Subpossibility #2.3: Sentence is both V^{\max} and I^{\max}

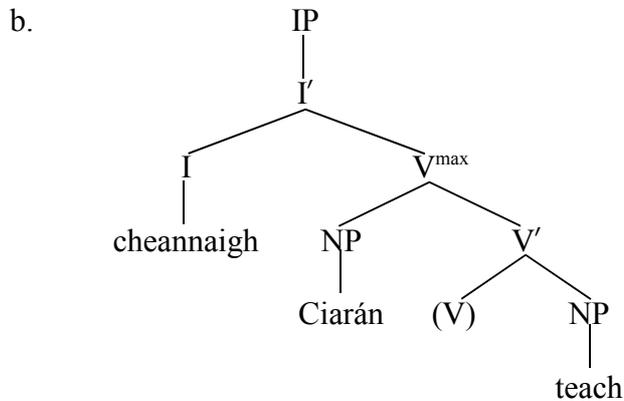
This is the “VP-internal subject hypothesis,” which emerged from several strands of research. One of the most influential of these was **Koopman & Sportiche (1991)**, who argued for an analysis of this kind for several reasons. Aside from theoretical reasons (such as the desire to

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have all the thematic arguments of the verb within the V^{\max}), they claim that the “VP”-internal subject position is required for the subject in VSO languages like Irish. Under the IP/ V^{\max} approach, the structure of an Irish sentence like

(1a) is taken to be (1b) (McCloskey 1991; 1997).

- (1) a. Cheannaigh Ciarán teach.
 bought Ciaran house
 ‘Ciaran bought a house.’



(A good overview of arguments is provided by **McCloskey 1997**). Despite the apparent evidence for this from Irish-type facts (and other phenomena), reviving the V^{\max} theory of the sentence once again in the form of the VP-internal Subject Hypothesis once again blurs the distinction between sentence and VP. Koopman & Sportiche’s argument that all the thematic arguments of the verb should be within the verb’s maximal projection is an explicit statement of this.

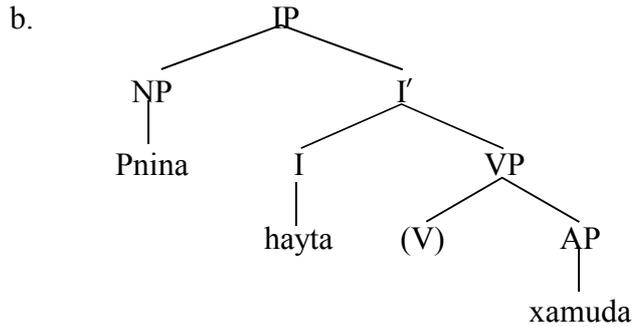
So.....

The sui generis theory of the sentence (i.e. S) reflects traditional insights into the uniqueness of the sentence, and is flexible enough to accommodate both configurational and non-configurational languages. The analysis of the sentence as IP has the advantage of providing the sentence with a phrase-like structure, and is supported empirically in many languages. Where does this leave us?

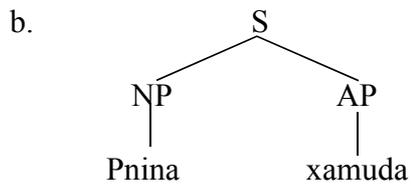
Suppose both are correct: the sentence can be either S or IP. In the context of Hebrew, this is quite plausible: the distinction between S and IP would correspond to the traditional distinction between verbal and nominal sentences:

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- (2) a. Pnina hayta xamuda. פנינה הייתה חמודה.
 Pnina be.PST.3FSG cute.F
 ‘Pnina was cute.’



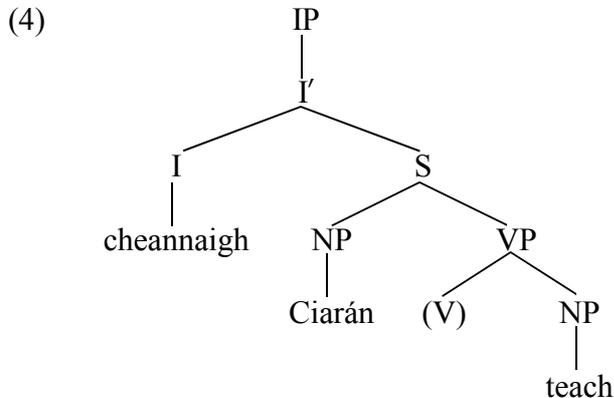
- (3) a. Pnina xamuda. פנינה חמודה.
 Pnina cute.F
 ‘Pnina is cute.’



Of course, this requires a weaker theory of phrase structure than one which assigns an \bar{X} structure to everything—but this is necessary anyway, because of non-configurational languages.

Furthermore, if S and IP are distinct categories, this provides us with a way to avoid the problem of languages like Irish, and the evidence they seem to provide for the undesirable sentence-as- V^{\max} . Suppose that a “VP-internal subject” is really an “S-internal subject”, and that this S is a structural complement of I:

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No need for the V^{\max} analysis of the sentence!

This is what has become the standard position in LFG. It was first argued for explicitly on the basis of evidence from Tagalog by **Kroeger (1993)**, and is adopted in such standard LFG references as **Bresnan (2001)**.

References

- Bresnan, Joan (1982) “Complementation and Control.” in Joan Bresnan, ed., *The Mental Representation of Grammatical Relations*. Cambridge, Mass: MIT Press. 282–390.
- Bresnan, Joan (2001) *Lexical-Functional Syntax*. Oxford: Blackwell.
- Chomsky, Noam (1957) *Syntactic Structures*. The Hague: Mouton.
- Chomsky, Noam (1965) *Aspects of the Theory of Syntax*. Cambridge, Mass: MIT Press.
- Chomsky, Noam (1970) “Remarks on Nominalization.” in Roderick Jacobs and Peter Rosenbaum, ed., *Readings in English Transformational Grammar*. Waltham, Mass: Ginn and Co. 184–221.
- Chomsky, Noam (1981) *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, Noam (1986) *Barriers*. Cambridge, Mass: MIT Press.
- Falk, Yehuda N. (1984) “The English Auxiliary System: A Lexical-Functional Analysis.” *Language* 60: 483–509.
- Gazdar, Gerald, Geoffrey K. Pullum, and Ivan Sag (1982) “Auxiliaries and Related Phenomena in a Restrictive Theory of Grammar.” *Language* 58: 591–638.
- Hale, Kenneth (1973) “Person Marking in Walbiri.” in Stephen R. Anderson and Paul Kiparsky, ed., *A Festschrift for Morris Halle*. New York: Holt, Rinehart and Winston. 308–344.
- Hale, Kenneth (1981) “On the Position of Warlpiri in a Typology of the Base.” Indiana University Linguistics Club.
- Hornstein, Norbert (1977) “S and X' Convention.” *Linguistic Analysis* 3: 137–176.
- Jackendoff, Ray (1977) *X' Syntax*. Cambridge, Mass: MIT Press.
- Koopman, Hilda, and Dominique Sportiche (1991) “The Position of Subjects.” *Lingua* 85: 211–258.
- Kroeger, Paul (1993) *Phrase Structure and Grammatical Relations in Tagalog*. Stanford, Calif: CSLI Publications.
- McCloskey, James (1991) “Clause Structure, Ellipsis and Proper Government in Irish.” *Lingua* 85: 259–302.
- McCloskey, Jim (1997) “Subjecthood and Subject Positions.” in Liliane Haegeman, ed., *Elements of Grammar: Handbook of Generative Syntax*. Dordrecht: Kluwer. 197–235.
- Pollard, Carl, and Ivan A. Sag (1994) *Head-Driven Phrase Structure Grammar*. Stanford, Calif: CSLI Publications.