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SENTENCE

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We start with analytical issues associated with the concept of sentence and then turn to more general issues.

Traditionally, the sentence is the domain within which purely syntactic relations, *CONSTITUENT STRUCTURE* and *GRAMMATICALITY* are defined. It is the one independent syntactic entity. It expresses a predication and is often regarded as *the* linguistic vehicle for the expression of a *PROPOSITIONAL ATTITUDE* and thus the performance of a *SPEECH ACT*.

That much would generally be held to be true cross-linguistically, though how it is realized in *SYNTAX* and *MORPHOLOGY* differs from language to language. We focus here on English. Traditionally, English sentences consist of one expression functioning as subject and another as predicate, the latter centred on a verb which must be finite (i.e. inflected for tense/subject agreement). What further expressions must figure in the predicate depends on the type (“subcategory”) of the verb: none with intransitive verbs (*Tom [laughed]*), one with transitives (*Tom [ate - the pies]*), two with ditransitives (*Tom [gave - them - the pies]*), for example. Sentences are declarative (all the above), interrogative (*What did Tom eat?*), exclamative (*What a long meeting that was!*) or imperative (*Eat those pies!*), where the subject is not overt because understood as referring to the addressee.

Sentences may contain sentence-like constituents, traditional “subordinate clauses”. In these, the subject may be non-overt because understood (compare *Tom wants [Anna to go]* with *Tom wants [to go]*, where *Tom* is subject of *to go*) and the verb need not be finite (*to* is the infinitive particle). Subordinate clauses contribute to the speech act performable at sentence level but don’t in themselves allow for the performance of a speech act. A subordinate interrogative clause, for example, is not a question (*Tom asked [who ate the pies]*). Simple sentences consist of one clause (“sentence” equals “clause” here). Complex sentences consist of a main clause and any number of subordinate clauses. (See Burton-Roberts (1997), a basic introduction

to English sentence analysis, and Huddleston & Pullum (2002), a comprehensive grammar, in which “sentence” is abandoned in favour of “clause”.)

In what follows we trace how “sentence” has fared in Chomskian *GENERATIVE GRAMMAR* (CGG, henceforth). Chomsky (1957) was traditional in taking S as *the* symbol to be defined by any grammar - the “initial symbol” and thus the “root node” in any *PHRASE STRUCTURE* tree. In defining S for a language L, a grammar was said to generate the sentences of L and thereby generate L. The definition consisted of successive rewrite rules, the first being [S→NP-VP], where NP (Noun Phrase) functions as subject and VP (Verb Phrase) as predicate, though “predicate” is seldom used in this context (see *PREDICATE AND ARGUMENT*). Chomsky (1965) adopted an alternative initial rule, which informed subsequent developments: [S→NP-AUX-VP]. Here “Aux” is the locus of tense/agreement, as in s[NP[*Tom*] AUX[*has*] VP[*eaten the pies*]]. Subordinate clauses were treated as “embedded sentences”. To accommodate clause-introducing complementiser expressions (e.g. *that/whether/when* in *Anna knows that/whether/when Tom laughed*), an extension of S was introduced: S’ (“S-bar”). This was defined/expanded by the rule [S’ → Comp-S], designed to capture the fact that [*that/whether/when* [*Tom laughed*]] is in some sense sentential (clausal) while distinguishing it from the basic clause itself (*Tom laughed*). In terminology adopted later, S’ is a “projection” of S. This projection idea was developed in *X-BAR THEORY*, with consequences for S as a formal category.

Pre-generative (Bloomfieldian) linguistics distinguished between endocentric and exocentric structures. Endocentric structures are “headed”, centred on a constituent of the same category as the whole structure. Thus, *Tom’s summary of the argument* is an NP because centred on the Noun *summary*. In other words, the NP is a projection of its head, N. Now, thought of as constituted as either [NP-VP] or [NP-AUX-VP], S is a category distinct from the categories of its constituents and hence not a projection of any of them. S would therefore seem to be headless (exocentric). By contrast, X-bar theory (initiated in Chomsky 1970) makes the constraining assumption that all categories are endocentric and have the same three-level projective structure (XP, X’, X). With S treated as the (exocentric) root node, we miss the parallelism between the above NP and the sentence *Tom summarised the argument*. If *summary* is head of the NP, the inflected verb *summarised* should be the

head of the corresponding sentence. This suggests that the root node is not S but a projection either of V or, given NP-AUX-VP, of the tense/agreement inflection.

“Sentence” is therefore abandoned as a formal category, at least in CGG. An Inflection Phrase system (IP, I', I) is posited, with the traditional “subject” treated as the specifier of IP (Spec, IP). Furthermore, this “Infl” system is itself embedded within a Complementiser Phrase system (CP, C', C). This goes for all clauses, including main clauses (e.g. $CP[who\ C'[C[did]\ IP[he\ marry\ t]]]$). The root node, therefore, is CP. See *X-BAR THEORY* for further developments.

Although “S(entence)” has been abandoned as a formal category in CGG, the term “sentence” is still widely used even in that context, but informally. This is how it is used in what follows, where we turn to more general questions.

How does the structural notion of “sentence” (however analysed) map on to speech acts and speakers' utterance behaviour? This can be seen as a question of *COMPETENCE* vs. *PERFORMANCE*, interfacing with *PRAGMATICS* (see also *SEMANTICS-PRAGMATICS INTERACTIONS*).

It is uncontroversial that speakers utter words, one after the other. But do speakers utter sentences? Strings of uttered words can be “structurally ambiguous” (*He-watched-the-man-with-the-telescope*). However, as described above, a sentence has - indeed is - a unique structure (generated, we assume, by a mentally represented grammar). A structure, as such, cannot be “structurally ambiguous”. This suggests that word-strings can be “structurally ambiguous” because they don't in fact have syntactic structure. Arguably, this is why word-strings require *PARSING*. Parsing, on these terms, is a matter of putting a (structure-less) word-string into correspondence with a sentential structure. “Structural ambiguity” in a word-string, rather than being a matter of “having more than one structure”, is when the string can be put into correspondence with more than one uniquely structured sentence. This suggests that we do not utter sentences as such.

Nevertheless, it is generally assumed, if only informally, that uttering certain word-strings counts as uttering a sentence. On that assumption, “sentence” is a somewhat ambiguous term, applicable both to mind-internal structures and to what can be uttered/heard in speech.

Even allowing that sentences can be uttered, sentence and utterance are not isomorphic. For example, utterances may include parenthetical elements, some of which are not clearly constituents of sentence structure (“It's - I don't know - let's see

now - about twenty miles”) and some whose status as sentence constituents is controversial - for example, appositive relative clauses. Notice that, in uttering “Tom, who eats all the pies, is getting fat”, we perform two (assertive) speech acts. (See Burton-Roberts (2005) on parentheticals.)

Furthermore, speech acts performable in uttering sentences are performable by non-sentential utterances. “Yes” in answer to “Did Tom laugh?” communicates what’s communicated by “Tom laughed”. Is the utterance of *yes* the utterance of a sentence? Possibly - if *yes* is a sentential pro-form (a pro-sentence, parallel with pronoun and the pro-VP *do so*). The question arises more urgently with non-sentential utterances that are clearly not pro-sentences: “Possibly” (just used), “What a day!”, “Ready?”, and “Sleep” in reply to “What did you do today?” A syntactic approach, appealing to *ELLIPSIS*, would analyse them as utterances of sentential structures (e.g. *Are you ready?*, *What I did today was sleep*) in which words, or at least their phonological features, are deleted. A non-linguistic, pragmatic, approach would treat them as utterances of just the words heard, explaining what they communicate by appeal to distinct conceptual structures in Mentalese (see *LANGUAGE OF THOUGHT*). See Stainton (2006) for discussion and references. The issue arises even with utterances not generally regarded as elliptical. Is “Eat!” the utterance of an imperative sentence or of just a Verb? “It’s raining” generally communicates that it’s raining *here* (where the speaker is). But does the sentence uttered include a covert location variable whose value is given in the context of utterance, as a matter of sentence semantics, or is the location necessitated (and supplied) independently by conceptual structure? (See Stanley 2000, Recanati 2002.)

At issue is the relation of sentences to utterances on the one hand and thoughts on the other. How “sentence” is understood depends on how sentences are felt to be related to - and distinguished from - thoughts and utterances.

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