Lecture 1. Grammatical relations/functions: Introduction Irina Nikolaeva

• Some linguistic theories assert that syntactic structure (phrasal structure) contains all relevant information about the clause, including its meaning (semantics) and pragmatic properties.

For example, some versions of transformational syntax assume the so-called UTAH (Uniformity of Theta role Assignment Hypothesis), according to which semantic roles such as *agent*, *patient* etc. are associated with particular phrase structure positions.

Therefore languages have the same underlying phrase structure trees. Various transformations are introduced to change these basic structures into the surface phrasal structure appropriate for each language.

Grammatical relations such as *subject* or *object* are also defined configurationally (based on the position on the syntactic tree).

• Non-transformational theories of grammar such as Construction Grammar, Head-Driven Phrase Structure Grammar (HPSG), Role and Reference Grammar and Lexical Functional Grammar (LFG) represent different aspects of the structure of a clause as separate but related grammatical modules.

Such theories assume that syntactic structure is related to semantics, information structure, and other linguistic levels not by means of transformational operations, but by correspondence principles.

- The **phrasal structure** of the clause is represented by a phrase structure tree which models the grouping of the words into syntactic constituents and their linear ordering (will not be very relevant for this course).
- **Semantic structure** represents various semantic notions such as e.g. definiteness or animacy (will not be very relevant for this course).
- **Argument structure** is a representation of the number and type of arguments associated with a particular predicate, represents the semantic/thematic/participant roles associated with the predicate.
- **Grammatical relations** (or: grammatical functions) represent functional information, that is, behavioural properties of the elements of the clause.
- **Information structure** has to do with the pragmatic structuring of the clause in terms of old and new information.
- NB: In some functional-typological literature grammatical relations are treated as purely classificatory labels referring to the clusters of language-particular behaviours. They are not proper components of a speaker's grammar and do not have mental representations (see e.g. a survey in Christofaro 2009, and the literature cited there). This is not the claim of non-transformational grammars mentioned above.

Argument structure

- Argument structure contains the predicate and the associated argument slots filled by semantic/thematic/participant roles such as *agent*, *patient*, *recipient*, *location* and so on.
- Argument structure is closely related to meaning but does not represent the full meaning of a sentence, or even a predicate. It is important for syntax because it determines many of the basic grammatical properties of the clause in which the predicate occurs.

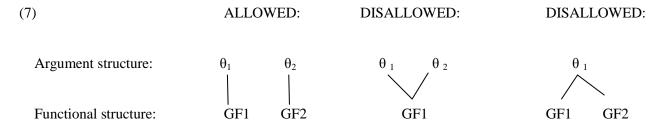
- The inventory and the definitions of semantic roles are highly debatable.
- Semantic/thematic roles are part of the lexical entry of the verb.
- (1) dance <agent> give <agent, theme, recipient> eat <agent, patient> love <experiencer, stimulus>
- (2) John baked Mary a cake John opened the lock with a key The key opened the lock John resembles his mother
- Much research is based on the assumption that arguments are ranked relative to one another on a **thematic hierarchy.** The order of the argument slots on the hierarchy reflects their relative prominence (with the most prominent on the left).
- (3) Thematic Hierarchy: agent > beneficiary > experiencer/goal > instrument > patient/theme > locative

Grammatical functions

- Grammatical functions are basic concepts of grammar. They represent abstract syntactic relations and are largely invariable across languages—in the sense that they are selected from a more or less well established set: SUBJ, OBJ, OBJ, OBJ, OBJ, ADJ ...
- Grammatical functions are syntactic primitives: they are not defined as noun phrases appearing in a particular structural position on the syntactic tree or as entities bearing a particular semantic role.
- Instead, diagnostics identifying grammatical functions appeal to behavioural grammatical properties. Frequent criteria have to do with agreement, case marking, accessibility to relativization, control properties and the like.
- For example, in many languages the subject is the argument which agrees with the verb, or is required or disallowed as the antecedent of a reflexive or pronoun, or is absent in a subordinate clause under identity with a matrix clause argument.
- Voice alternations are not always reliable tests. For instance, it is often claimed that objects can be identified as those arguments of an active verb which appear as the subject of the corresponding passive verb, but although this is often true, there are passive subjects which are not objects of the active verb.
- (4) Bill is said [to be available] / *Someone said [Bill to be available]
- Behavioural properties of grammatical functions vary greatly from language to language. None of them is definitional, and indeed all of them have been found to be associated with various functions, depending on the language.
- In fact, relevant properties tend to target the top of the grammatical function hierarchy originally proposed by Keenan & Comrie in 1977. It distinguishes subjects from other arguments in some languages, and core arguments from noncore arguments, or arguments from adjuncts, in other languages.
- (5) SUBJ > OBJ > OBL > ADJ

• Semantic structure and GFs are in principle independent of each other. None of them is derived from each other. However, we can talk of the mapping/linking relationship between semantic roles and GFs:

• The mapping is constrained by various universal principles. One of them is referred to in LFG to as Function-Argument Bi-Uniqueness: each argument-structure role must be associated with a unique function, and conversely.



- There are no predicates whose argument structure contains two different semantic roles (an agent and a theme, for example) with both roles mapped to a single grammatical function, and there are no predicates whose argument structure contains a single semantic role mapped to two different grammatical functions:
- (8) Mary gave fish to the cat *Mary gave fish [to the cat] [to David] (OBL_{rec}, OBL_{rec}) *Mary gave the cat (OBJ_{rec}, OBJ_{th})
- This does not apply to non-governable functions such as adjuncts, which can be freely multiplied.
- (9) Mary came home at 3pm on Wednesday (ADJ, ADJ)
- Implicit arguments
- (10) John ate an apple.

 John ate. (implies that John ate something)
- Grammatical functions can be semantically restricted and semantically unrestricted. SUBJ is semantically unrestricted in English: it can correspond to various semantic roles. We will see examples of semantically restricted GFs later in the course.
- (11) John hit the ball agent
 John received a letter John is pleased experiencer
 etc.

Information structure

- Grammars offer different structural options for expressing roughly similar content. Utterances can be "tailored"/packaged" (Chafe) by a speaker in different ways depending on communicative and contextual needs.
- "Allo-sentences" (from Lambrecht 1994):
- (12) a. John: And what about your car? Mary: It broke DOWN.
 - b. [Uttered when getting on the bus:] My CAR broke down.
- This entails that certain formal properties of sentences cannot be fully understood without looking at the linguistic and extralinguistic situations in which sentences are embedded.
- Information structure (a.k.a. information packaging, functional sentence perspective, discourse pragmatics, or informatics) is a level of organization of a sentence which has do with the relationship between its formal structure the contexts in which it is used as a unit of information.
- It is not concerned with the organization of the discourse, but with the formal organization of sentences within discourse. The relationship between information structure in this sense and the rhetorical structure of the discourse is a different (and poorly studied) issue.
- Important notions of information structure: **topic** and **focus**.
- Utterances normally contain some (known) element(s) about which the speaker wants to convey new information to the addressee. Topic is usually understood as the entity (a referent) that the proposition is about. A potential diagnostics for topichood is the "what-about" (or "tell-about" or "as-for") test.
- Gundel (1988: 210): "An entity, E, is the topic of a sentence, S, iff in using S the speaker intends to increase the addressee's knowledge about, request information about, or otherwise get the addressee to act with respect to E."
- Topic is a relational notion: it involves a pragmatic relation of **aboutness** between a referent and a proposition. This relation holds if the speaker assumes that the addressee considers a referent salient enough to be a potential locus of predication about which the assertion can be made.
- The topic inhabits the presuppositional part of the proposition: sentences with topics pragmatically presuppose that a referent is taken by the interlocutors to be a centre of current interest in the conversation (topicality presupposition).
- Topicality reflects the informational status of a referent, and has to do with the pragmatic relation that holds between the referent and the proposition. It depends on how the speaker construes the situation within the given communicative context rather than on NP's referential properties such as definiteness, animacy, specificity etc.
- Topics are defined on referents, not on linguistic expressions. Therefore we have to distinguish between **topic referents** vs. **topic expressions**, see (12).
- Since topic is a predictable (presuppositional) part of the proposition, it may remain formally unexpressed: the topic expression can be missing. Topics are often expressed by unaccented pronouns or anaphoric agreement morphemes (pronominal incorporation).

(13) Chicheŵa (Bantu):

Fîsi anadyá mkângo. Á-tá-u-dya a-napítá ku San Francîsco hyena ate lion **he**-SER-it-eat **he**-went to San Francisco The Hyena ate the lion. Having eaten it, he went to San Francisco.

- Focus is understood as the information update potential of a respective sentence. Focus: "the semantic component of a pragmatically structured proposition whereby the assertion differs from the presupposition" (Lambrecht 1994: 213).
- It is not the focus referent itself that is new for the addressee, but the fact that it participates in the proposition conveyed by the sentence and fills the informational gap between assertion and presupposition in a given communicative context.
- The new contrary-to-expectation information conveyed by a sentence is the relation between the focus and the presuppositional part of the proposition.
- Four main types of focus articulation:
 - narrow focus / argument focus
 - wide focus / predicate focus
 - sentence focus / 'presentational', 'all-new' or 'thetic' sentences
 - verb focus / verum focus
- Narrow focus extends over one participant in the event. Its main communicative function is identification.
- (14) A. What is Bill eating?
 - B. He is eating PIZZA.

presupposition: 'Bill is eating X' assertion: 'X = pizza' focus: 'pizza' pizza'

PIZZA

- Wide focus extends over several constituents including the verb (normally a VP) and serves to augment known information about a particular referent. This corresponds to the traditional notion of **comment.**
- (15) A. What is Bill doing? Or: What about Bill?
 - B. He is eating pizza in the kitchen.

presupposition: Bill is doing X

assertion: 'X = eating pizza in the kitchen' focus: 'is eating pizza in the kitchen' focus domain: *is eating pizza in the kitchen*

- Sentence-focus: the entire sentence is focused; it is pragmatically unstructured in the sense that it lacks a pragmatic presupposition. The focus domain extends over the whole proposition. The main function is presentational.
- (16) A. Why didn't she come to work today? Or: What happened?
 - B. Her SON is sick.

presupposition: --

assertion: 'woman's son is sick' focus: 'woman's son is sick' Her SON is sick.

- Verb focus: can target polarity, truth-value, TAM or the lexical content of the verb to the exclusion of all other elements.
- (17) The book WAS on the table.
 - a. [There was no book on the table].
 - b. [The book is on the table].
- (18) He didn't drive here, he WALKED.
- Information structure notions are not a priori constrained to be encoded as a particular grammatical function. However, there are certain cross-linguistic tendencies governing their syntactic expression. We can understand them as principles of the preferred mapping between information structure and syntax which operate in natural language.

Further references

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