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Abstract

The paper describes a presentation format of grammatical information for language teaching. c-structures and f-structures are represented as graphical annotation to a text. It is advocated that LFG-like concepts are preferable to traditional grammar rules.

After an anti-grammar movement in the 1980s we can recognize today a resurgence of interest in the role of grammar in language teaching (Hedge 2000: 143, Tyler 1994). The term Pedagogical Grammar denotes the types of grammatical analysis and instructions designed for the needs of second language students (Odlin 1994: 1). It comprises the notion of a set of rules (prescription), of an archive of variability (descritive), of a model of the internal competence (internal system) and of an abstract formal system (axiomatic). This hybrid nature makes it difficult to define a clear cut profile of its design and its application in practice. GB/PP, Relational Grammar, GPSG/HPSG and LFG have been proposed as hopeful candidates. As concerns LFG, not much work has been done on the question of its usability for Second Language Acquisition purposes (but see Pienemann 1998).

In a pedagogical grammar, rules should be traditionally: (1) concrete, (2) simple, (3) nontechnical, (4) cumulative, (5) close to popular/traditional notions and (6) in rule-of-thumb form (Odlin 1994). (1)-(3) and (6) concern primarily the form of presentation, and this will be the topic of this contribution. The samples included herein shown how LFG-structures could be described for the lay public. First tests were made in a one year introductory Arabic course at university level.

The idea is to visualize grammatical information as an annotation to a given text, not as an independent structure.

The matrix notation of f-structure is transformed into a directed graph. All PRED-values are lined up in the sequence of their corresponding words in the sentence, or phrase. The result is mathematically equivalent to the original matrix representation.

The tree notation of c-structures is transformed into colored boxes indicating the grouping of the linear structure and the categories of the constituents. Some functional annotations are added to the labels.

Both, c-structure and f-structure annotations, can be used in combination. The curved arrows are clearly distinguishable from the rectangular boxes.

In a traditional textbook the genitive construction (Iḍāfa) is explained the following way (Schulz 2000: 70-72):

- The governing word is in the so-called construct state; it does not take the article or *nunation*.

- All terms except the last in a genitive construction consisting of several terms (genitive chain) are in the construct state.

- Not more than one noun should constitute the 1st term of a genitive

construction - in good style.

- If the 2nd term of the Iḍāfa is definite, the 1st term, which is in the construct state, is also regarded as definite.

- Consequently, an adjectival attributive adjunct ascribed to the 1st term has to be construed with the article.

- However, as the terms of the genitive construction must not be separated ... , the attributive adjunct must either follow the whole genitive construction, ... or else it follows the 1st term, ... , and the 2nd term of the genitive construction which has been dissolved by now is added by means of *li-* .

- If the 2nd term of the Iḍāfa is indefinite, the 1st term in the construct state is regarded as indefinite. An adjectival attributive adjunct ascribed to the 1st term of Iḍāfa ... follows indefinite.

The learner has to memorize all these rules concerning genitive construction without any guiding concept.

In contrast to this traditional explanation, we can capture the entire set of phenomena by means of one recursive rule: An NP can consist of an N, followed by an NP in the genitive, receiving CAS, NUM etc. from the head N and DEF from the NP (POSS is omitted here and in the following examples for the sake of simplicity). This is analogous to the simple NP, consisting of an N and a Det.

$$\text{NP} \quad = \quad \underset{\uparrow=\downarrow}{\text{N}} \qquad \underset{(\uparrow \text{DEF}) =\downarrow \text{DEF}}{\text{NP}}$$
$$\downarrow \text{CAS} = \text{gen}$$

This form of notation is not acceptable in language teaching. It is particularily confusing for Arabic, where the writing direction is right to left. The following examples illustrate a pedagogical alternative :
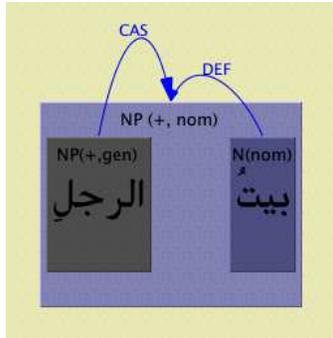
Figure 1: A simple genitive construction ('the house of the man')

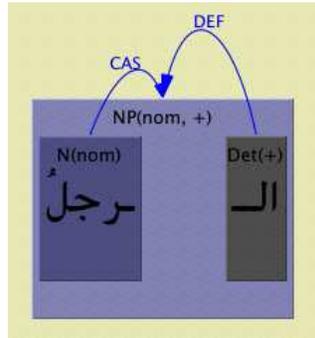The analogy to the simple NP is emphasised by the color pattern:

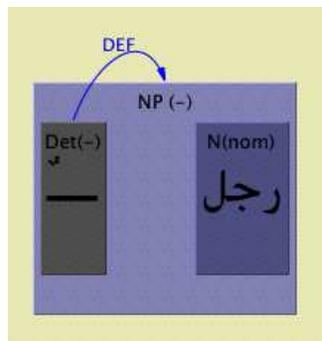Figure 2: A simple definite nominal phrase ('the man')

Figure 3: A simple indefinite nominal phrase ('a man')

The definition predicts a further regularity, not covered by the descriptive set of rules in the textbook: attributed adjectives follow in reverse order of their respective substantives (see figure below).
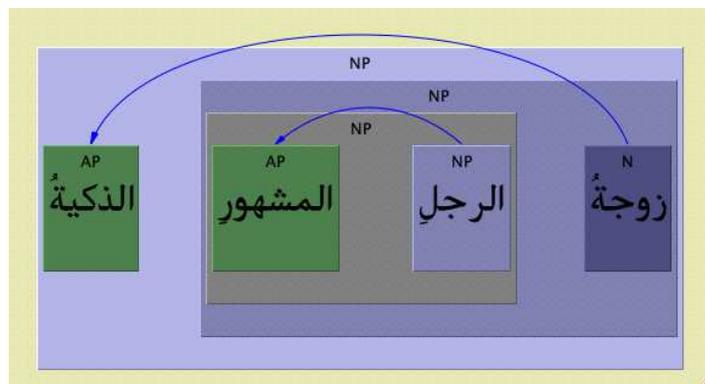
Figure 4: Attributed adjectives ('the intelligent wife of the famous man')

The above samples are the output of a Java application:

http://www.ori.unizh.ch/lfg/

In combination with modules for parsing and feature structure unification it is part of an authoring tool for the design of pedagogical grammars. Apart from the introductory Arabic course it will be used in the Arabic Papyrology School:

http://www.ori.unizh.ch/aps/

Further tests must decide, if this presentation form is usefull in the communication between learner on one side and teacher or teaching systems on the other side.

References

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