Syntactically flexible functional categories

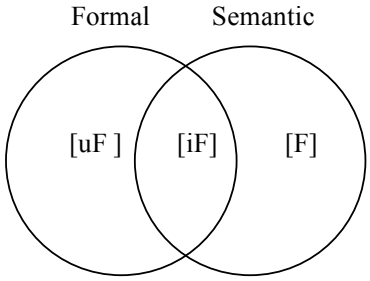
I. One of the central questions concerning the division of labour between syntax and semantics concerns the syntactic status of functional categories: what determines which functional categories are formal (i.e. syntactic) categories? In this paper we propose an account in terms of a language learning process that determines the syntactic status of functional categories. The central idea is that L1 acquisition is partly a procedure to determine which functional categories should be syntactic categories, i.e. be reanalysed as carrying formal features (an idea tracing back to Emonds 2001). If UG does not equip functional categories with formal features, no functional category can be taken to be a syntactic category in the initial stage of language development. Hence, only if positive evidence is provided, L1 learners can reanalyse functional elements as carrying formal features. In our paper we demonstrate that this proposal applies to different functional categories and we demonstrate how it explains Negative Concord (NC) and Sequence-Of-Tense (SOT) effects.

II. As has been proposed in Chomsky (1995, 2001) grammatical features come about in three types: phonological features, semantic features and formal features, whereby the sets of the latter two categories intersect. As illustrated in (1), the major difference between formal features and semantic features is that formal features are either interpretable or uninterpretable ([uF]/[iF]) (or valued/unvalued in the later terminology), whereas the purely semantic feature [F] carries no such value. Thus, if an L1 learner identifies an element as being uninterpretable, (s)he takes this element to be a formal feature [uF] and its interpretable counterpart as [iF]. If there is no uninterpretable feature present, the element remains a carrier of a semantic feature [F]. The question is now: how does an L1 learner recognize uninterpretable features? This is only the case if the presence of a semantic operator at LF is marked more than once in the morphosyntax (i.e. one or more elements exhibit overt agreement or movement with respect to an LF operator). In that case, at least one of the elements must be uninterpretable at LF.

III. Let us look at the first case. Many languages exhibit NC, i.e. multiple morpho-syntactic instances of negation yield one semantic negation (cf. Haegeman & Zanuttini 1996, Giannakidou 2000 amongst many others). In non-NC languages on the other hand two negations cancel each other out. An L1 learner of Italian is forced to assume that at least one of the two negative elements in (2a) is semantically non-negative and therefore uninterpretable. As a consequence, negation in Italian is taken to be a syntactic category, whereby some negative elements carry a formal feature [iNEG] (being negative operators) and others a formal feature [uNEG]. In Dutch however, every negative element contributes a negation in the semantics. Hence, no element is analysed as being uninterpretable, and therefore in Dutch, negation remains a semantic category and negative elements carry a semantic feature [NEG] (2b). NC is thus the result of (multiple) agreement with respect to negation (in the line of Ladusaw 1992, Brown 1996, Zeijlstra 2004). A prediction that follows from this account is that, the possibility for the negative feature to project is restricted to NC languages since negation is a syntactic category in NC languages only. Feature projection is a syntactic operation and therefore only applicable to features that belong to the syntactic vocabulary. As negative features in non-NC languages are not syntactic features, these features cannot project and hence negative elements can only occupy phrasal positions. However, NC languages do not impose such restrictions on the syntactic status of their negative markers, as is shown in (3). This predicts that NC languages exhibit negative markers of different syntactic status, whereas non-NC languages allow only negative markers that are XP's. Based on an investigation of a large empirical domain this prediction is born out (cf. Zeijlstra 2004): languages that have an overt negative marker X° are NC languages, but not vice versa.

IV. The account of SOT effects follows in a similar fashion. In many languages multiple past tense morphemes may express the presence of a single past operator (4) (cf. Kratzer 1998, Ogihara 2003, Stechow 2005 a.o.). Hence the feature [PAST] will be reanalyzed as the formal feature [u/iPAST]. Thus SOT can be seen as a form of (multiple) agreement of several affixes carrying [uPAST] features against a single operator carrying [iPAST]. Now, it follows from our theory that in every language in which there is dislocation between the position of the semantic past tense operator and the position of the past tense morphemes (even within a single clause) the language is expected to exhibit SOT effects. In our paper we will demonstrate that this is indeed the case. We show that some possible counterexamples, like the apparent lack of SOT in Russian, follow from other phenomena (such as cross-linguistic differences with respect to locality constraints induced by C°), for which we provide independent evidence.

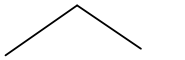
(1) Features:



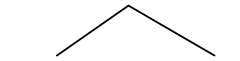
(2) a. Gianni *(*non*) ha detto *niente* — Italian (NC)
Gianni NEG.has said n-thing
'Gianni didn't say anything'
[$Op_{\neg[iNEG]}$ Gianni [$non_{[\sout{iNEG}]}$ [ha detto [$niente_{[\sout{iNEG}]}$]]]]

b. Jan zei *niets* — Dutch (non-NC)
Jan said n-thing
'Jan didn't say anything'
[Jan [zei [$niets_{[NEG]}$]]]

(3) a. NC: [u/iNEG]/[X]



b. Non-NC: [X]



(4) Maria *said* Hans *was* in the Opera
'Mary said at time t that Hans was in the opera at time t' — Simultaneous reading
[Marie $Op_{PAST[iPAST]}$ $said_{[\sout{uPAST}]}$ [Hans $was_{[\sout{uPAST}]}$ in the opera]]

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