

### Implicit subjects in early child language

The paper compares the argument identification patterns in the linguistic behaviour of 2 year-old children acquiring Hungarian, a *pro*-drop language, and English, a non-*pro*-drop language. The principles governing subject identification in English child language are shown to be distinct from the Hungarian learner's rules of overt subject expression or subject identification by agreement, which is taken as evidence against a parameter setting or maturational approach to errors in argument mapping. A common feature of child English and child Hungarian is the speaker's predisposition to omit arguments whose referents are in some way identified. It is also shown that this tendency is not imposed on performance by processing factors but must be part of the child's competence. However, subject expression in English is also affected by some processing limitation that interferes with the mapping of subject identification features: the likelihood of subject-drop increases with the length of the VP. This effect does not show up in Hungarian. It is argued that the processing restriction is therefore to be viewed not as a rigid biological limit that gradually relaxes with age but as an age-independent tendency to put as little cognitive effort as possible in encoding the information given in conceptual structure. Whether the cognitive load can be reduced by not mapping conceptual subjects onto an overt syntactic function would then depend on the learner's hypothesis grammar of the target language. If two mapping options are in free variation according to the grammar, the simpler of the two will be preferred. The greater the processing load, the greater the tendency to select the simpler option. This seems to be the case in English child language, where within the structural constraints of Universal Grammar, implicit subjects are assigned non-marginal probabilities both in contexts where the subject is not uniquely identified in discourse and in contexts where it is. If on the other hand only one option is specified by the grammar or alternative options are assigned marginal probabilities, the economy principle cannot take effect. This is what we find in Hungarian. On this interpretation the processing hypothesis is no longer seen as an explanation for erroneous subject drop. The VP-length effect is not the cause but the consequence of subject optionality.

It is proposed that if it is indeed the case that there are consistent errors of overgeneration in child language which cannot be attributed to misset parameters, an incomplete Universal Grammar or performance constraints, it is necessary to postulate a learning mechanism that makes use of indirect negative evidence, i.e., statistical patterns of occurrence and non-occurrence of certain structures in the input, in order to recover from overgeneration. The learning mechanism may be a satisfactory solution to the problem, provided that the precise conditions of the applicability of such evidence can be determined.

This conclusion is also supported by empirical findings. The results of the data analysis suggest that while the initial predisposition not to encode arguments identified in other ways may be a manifestation of a more general principle of economy of syntactic representation, the developmental process indicates language-specific learning. This is indicated in part by the overall probabilistic nature of the

pragmatic principle (on the assumption that actual probabilities are not built into the cognitive system) and in part by the children's step-by-step isolation of specific linguistic structures from the domain within which the grammar specifies optionality of subject identification. That is, the licensing conditions of optionality are continually revised. The process is illustrated by the usage patterns of infinitives in Hungarian child language. The data on root infinitives indicate that error patterns may be derived from the properties of individual learner's grammars. It is shown that the size of a context set that a target-like construction is associated with and the frequency of the construction within that context set are important parameters in predicting the domain and the extent of the error that displays structural similarities to the target-like construction.