Computations at the Interfaces in Child Grammar: Evidence from Bulgarian

The precise description of the nature of the Language Acquisition Device has undergone a development from a content of principles and (un-set/preset) parameters under the Principles & Parameters Theory (P&P) (cf. for example Chomsky 1995) to the assumption that it is compromised by an array of (invariant) properties and computational and assembly operations under the Minimalist Program (MP) (Chomsky 1993, 1995, 1998). This paper is concerned with the nature of the computational operations regulating child grammar with the goal to obtain a deeper understanding or at least deeper inquiry into the nature of the computational system of language.

In order to gain access to the nature of the computation processes related to certain grammatical properties, two phenomena are studied on the basis of L1 experimental acquisition data from Bulgarian: single cliticization and double cliticization. Whereas the acquisition of single clitics requires only computations at one interface- syntax, i.e. it is an instance of a single interface phenomenon, clitic doubling (CD)\(^1\) is regulated by both syntactic rules and discourse constraints (such as information structure for Bulgarian) and thus necessitates computations from the interfaces of both syntax and discourse. CD presents an instance of a multiple interface phenomenon. It is legitimate to predict that the operations between the interfaces will pose problems for children, since they need to be able to compute knowledge from and at both interfaces, resulting in delay or at least in optionality in the acquisition of the interface properties. At the same time, the computation of single cliticization is not associated with interface properties and we can expect single clitics to be unproblematic and emerge on the onset of acquisition.

The objectives of the study are as follow: 1) to establish whether single and double cliticization are simultaneous or successive processes in acquisition, and 2) to examine if there are significant computational differences in the acquisition of a single interface process as compared to that of a multiple interface process.

Two sets of novel data are presented in relation to these objectives: i) Elicited production data of 46 monolingual Bulgarian children, aged 2;2-4;3, and ii) Elicited comprehension data of 16 monolingual Bulgarian children, aged 2;5-4;2. The first study tested the acquisition of single (accusative) clitics and included an elicited production task, in which children was tested on 5 transitive verbs in 4 conditions depending on the elicited object clitic- masculine, feminine, neuter and plural. All answers obligatorily included a clitic in pre- or post-verbal position, depending on the structure used. The second study examined the acquisition of CD using an elicited comprehension experiment with a picture-matching task. 4 transitive verbs in 3 conditions depending on the used clitic form- masculine, feminine and neuter, gave a total of 12 test items.

The results indicate that Bulgarian children show an adult-like mastery of clitic syntax in the initial stages: they produce clitics at the age of 2;2\(^2\) and obey the clitic requirements of verb-adjacency by producing both proclitic and enclitic constructions from the clitic onset. At the same time, CD seems to be a late phenomenon – the children’s overall success rate was 54% with 47% at 2;8 and 63% at 4;1. It seems that Bulgarian children do not reach adult-like performance of CD even by age 4;0 and that CD acquisition at this stage still relates to optionality of use. Compared to the emergence of single clitics in Bulgarian at 2;2 and their robust production by 3;3, double cliticization is a late process. (cf. also Kapia (2010) for similar findings in Albanian).

Since the syntax-discourse interface feature emerges late, the prediction that interface phenomena such as double cliticization may be characterised by delay and optionality in child grammar is confirmed. Children’s non-adult linguistic performance is traceable to the load of computations at the levels of two interfaces- syntax and discourse. Thus syntactic properties are fully acquired whereas interface properties trigger residual optionality effects in the early stages. Furthermore, since double cliticization appears long after the acquisition of single clitics, it is legitimate to assume a modular nature of language with syntax from present from around 2;2 and the interface between discourse and syntax not fully matured until after age 4;0.

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\(^1\) CD is a construction in which an argument is overtly doubled by a clitic bearing the same phi-features and case, inside the same clausal domain.

\(^2\) There exists a crosslinguistic optionality of clitic omission in L1 acquisition accounted in terms of the Unique Checking Constraint (UCC) (Wexler 1998, 2003, Babyonishev & Marin 2006, Gavarró & Mosella 2009). Bulgarian, as a non-participle agreement language, behaves as predicted by the UCC.
References


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