The case of missing subjects in early grammars: absolutive-like stage in language acquisition

Using Slavic data, we aim to contribute to the long-standing debate concerning characterization of clausal structure in early child grammar, such as illustrated in (1–3):

(1) *English*: Hit ball. Give doggie. See Adam. Put baby. (Adam, Age 2;3; Brown, 1973)
(2) *German*: Schokolade holen.   Hubschrauber putzen.   (Andreas, Age 2;1; Wagner, 1985)
        Chocolate bring-$_{INF}$ Helicopter clean-$_{INF}$
(3) *French*: Pousser cha(r)iot. Mettre ça.   Manger la bumbu. (Marie, Age 1;11;Hamann, 2003)
        Push-$_{INF}$ chariot   Put-$_{INF}$ that Eat-$_{INF}$ the "bumbu"

The developmental phase in question encompasses Brown's Stages late-1 and 2 (MLU 1.5- 2.5), characterized by omission of functional elements and verb arguments. The status of functional projections and the mechanism of subject omission are generally discussed independently, although some accounts of root infinitives relate the two (e.g., the Truncation account, Rizzi, 1993; the ATOM model, Schutze & Wexler, 1996). Many competence-based accounts adopt a parametric approach, according to which [+null subject] is the default setting in early grammar (Hayams, 1983, 1986; Hayams & Wexler, 1993). This, however, fails to explain cross-linguistic variation in the rates of subject omission, ranging from ~20%-30% in child English to ~70% in child Italian (Valian, 1991), as well as higher rates of subjectless clauses in child grammars vs. corresponding adult grammars, even in null subject languages like Italian. We offer a unified account that explains multiple characteristics of early language, including argument omission, root infinitives, inconsistent use of elements associated with verb finiteness (e.g., auxiliaries), and lack of finite clause subordination. We propose that layers of syntactic structure emerge gradually, from the initial syntactic state, when child grammar contains the single innermost layer: VP/SC, the universal minimal structure, which allows for the verb to be combined with only one argument, structurally ambivalent with regards to its role as subject or object, i.e. absolutive-like role (for absolutive role, see also Ochs, 1982, for Samoan; Clancy, 1993, for Korean; Ezeizabarrena and Larranaga, 1996, for Basque; Goldin-Meadow, 2003, for deaf children's home sign). Other layers are added gradually, including the layer that accommodates transitivity (vP), finiteness (TP), and sentence embedding (CP). The intransitive inner layer (more minimal than what was previously proposed by gradualist accounts (e.g. Radford, 1990) provides a foundation for syntactic acquisition and elaboration in diverging directions; accounts for many aspects of delayed syntactic development in language disorders; and mirrors the postulated steps in the evolution of syntax (Progovac, 2015). This view, "the Weakest Continuity" view, treats early "incomplete" sentences not as instances of subject drop (i.e. analogous to adult pro drop grammar, as in adult Italian, or topic drop, as in adult Chinese, but rather, as clausal structures that accommodate only one, absolutive-like argument, as attested in adult ergative-absolutive languages, like Samoan. The semantic role of the single argument gets disambiguated by the verb semantics and/or pragmatically, rendering the single argument in (4a) object-like, but in (4b) subject-like, even in the absence of morphological distinction due to nom/acc syncretism (or in the absence of morphological marking as in examples 1-3):

(4) Russian a. konfetk-i   idjat   b. d'etk-i   stajat
        candy.$_{PLACC}$ eat.$_{3PL}$ child.$_{PL\_NOM}$ stand-$_{3PL}$

We analyzed patterns of argument omission in typical and atypical language acquisition in Russian and Serbian (CHILDES Slavic corpus and original data). All utterances with a verb and at least one nominal expression were included in the analysis (mean number of utterances = 70; SD = 37). Tentative results (Russian n = 5; Serbian n = 1) showed strong evidence of the

intransitive absolutive-like phase. In Russian, there were very few transitives (with both arguments overtly expressed; M = .06%; SD = .05), and utterances with a single (overt) argument overwhelmingly predominated (Mean = 85%, SD = 13.4). The Serbian child exhibited a similar pattern (10% and 90%, transitives and intransitives, respectively). In both languages, the omissions were not restricted to subjects.

In Russian, the preferred pattern involved the single argument being expressed as subject-like and object-like nouns morphologically unmarked (i.e, nom-acc syncretic marking; as in 5). These comprised 80-93% of all one-argument utterances (mean = 88%; SD = 0.4) with a heavy preponderance of SV and OV structures compared to VO and VS.

(5) a. Tusiki   nadet'   b. Kokos   nashel   c. jozhyk   upaj
     panties.$_{NOM/ACC}$ put-on.$_{3SG}$ coconut.$_{NOM/ACC}$ found.$_{PAST\_MASC}$ hedgehog.$_{NOM/ACC}$ fell.$_{PAST\_MASC}$

There were only a few instances of morphologically distinct acc (and other oblique cases). Case errors often involved nom substitutions for other cases (cf. also Babyonyshev, 1993), although others also occurred (instr substitution for acc, as in 6c):

(6) a.*Ain'ka   tiuis'.   b. *Kuda etot   zhiraf stavit'.   c. *Devochkoj vy berite
         Varen'ka.$_{NOM}$ kiss. $_{2SG}$ where this.$_{ACC/NOM}$ giraf.$_{NOM/ACC}$ put-$_{INF}$ girl.$_{INSTR}$ you take-$_{2PL}$

As predicted, agreement errors (root infinitives and substitutions) frequently occurred (as in 7).

(7) a. Ain'ka kupatja b. Ain'ka   igat'   c. ogon' let'at   d. my plavayet
         Varyen'ka bathe.$_{INF}$ Varyen'ka play.$_{INF}$ fire.$_{SG}$ fly.$_{3PL}$ we swim-$_{3SG}$

In Serbian (Jelena, 2;01; Anđelković, Ševa, & Moskovljević, 2001), both subjects and objects were omitted, with the expressed single argument involving 66% clear objects and 30% clear subjects, and sometimes showing ambivalence of its role (8). Only 22% of object-like examples had distinctive accusative marking, some erroneous. Given the ambivalence of forms due to case syncretism (nom/acc; nom/vocative), the argument structure of many one-argument utterances was difficult to determine and would likely constitute over-interpretation (and over-attribution of complexity) by the adult.

(8)   ?Beba ljulja   ?Beba stavi   *Daj beba
                       baby.$_{NOM}$ rock   baby put   give.$_{IMP}$ baby.$_{NOM}$
                       ?Ljulja baba   Vidi bebu   *Piši jabuku
                       rock grandma.$_{NOM}$ see baby.$_{ACC}$ write.$_{IMP}$ apple.$_{ACC}$

Regarding the contrast between the Russian, Serbian, and English data, where an asymmetry between subject- and object-omission has been reported to be 43-61% to 7-9% (Bloom, 1990), we suggest that the reason lies at the interface between surface morphology and syntax. In English, with acc as its default case (Schutze & Wexler, 1996), nom case can only be checked in a configuration requiring the TP, which we argue is missing from children's grammar at this phase. In the absence of structurally marked nom subjects, we find the object-like single arguments (potentially accusative) or subject-like arguments in the default (acc) case. Invoking grammatical conservatism (Snyder, 2015), we suggest that in English, it is syntactically "cheaper" to get a potentially acc single argument, while in Russian and Serbian, where nom is the default case, it is syntactically "cheaper" to get nom single arguments, with acc being used sparingly. Of note is that the ordering between the verb and the single argument from early on mirrors adult input: SV (the default word order) in Russian, and VO in English. The ordering in Serbian one-argument utterances seems a bit freer (with 62% of either SV or VO utterances, and 38% of either VS or OV), which may be related to freer word order in adult Serbian, and/or to Serbian being a pro-drop language (which is likely the factor that also explains fewer subject-like single arguments in child Serbian than in child Russian).