

Beyond maturation

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Over the last decades language acquisition research has taught us to push the age at which various features of children's linguistic knowledge emerge back in time (cf. Höhle et al. 2004, Hirsh-Pasek & Golinkoff 1996), and for some domains, such as prosody, this time travel does not have to stop at birth. It seems, however, that as far as language learnability in general is concerned, this readjustment of expectations concerning the age at which children come to grips with their first languages is not enough. The more closely we looked at second language learners, the more we realized that our ideas about what adults could or could not achieve both in terms of grammatical representation and performance called for some serious rethinking as well (cf. Hopp 2007 for a recent overview). It is becoming increasingly clear, then, that even though maturational schedules may well determine the emergence of specific linguistic subsystems, age affects language acquisition in many more ways, both positively in terms of experience, communicative skills and cognitive strategies (including transfer potential), and negatively as a consequence of cognitive aging (slowed-down processing, lack of inhibitory control, etc., cf. Bialystok et al. 2004). So even though we cannot deny that there are differences between L1 and (especially adult) L2 learners, it is far from clear what they are and to what extent they involve what one could consider universal constraints on linguistic knowledge systems.

My commentary on the target paper by Jürgen Meisel focuses on five issues: (1) the question of whether the idea of an *ersatz/surrogate* solution (which Meisel refers to in his discussion in section 3.1., paragraph 5) could solve the learnability problem if UG were no longer accessible to older L2 learners, (2) the certainly uncontested claim that learners need more than UG, (3) the status of structure dependency (as addressed in the paper), (4) evidence supporting the null hypothesis concerning *both* verb placement and subject-verb-agreement for children acquiring German as an early L2, and (5) what both child L2 and bilingual first language acquisition (2L1) can teach us about maturation and about L1 acquisition.

1. Mimicking UG effects?

The learnability or “poverty of stimulus” problem is not restricted to L1 acquisition (cf. White 2003, Schwartz 2004). If, as suggested by Meisel (section 1., paragraph 4), optimal phases during which UG can still be accessed directly “begin to fade out as early as around age 4”, and/or if there are age-related changes in processing capacity and language-specific acquisition mechanisms, we face several conceptual problems: We still have to explain how someone can learn what is basically unavailable for direct pick-up from the input. Note that whenever the L1 and the L2 differ in terms of parameter setting, we cannot simply shift the burden to indirect UG access via some mediating L1 *ersatz/surrogate* solution. Of course, we could maintain that even though L2 learners may look (or rather: perform) like native speakers, their grammars are “imposers”, their sentences only weakly equivalent to those generated by native speaker grammars. If this is what Jürgen Meisel wishes to argue, would he not have to explain why this solution would not do for L1 acquisition as well?

2. Beyond UG

To the best of my knowledge nobody would contest that UG cannot fulfil its function without the help of general cognitive strategies. Pinker (1987) was among the first to draw attention to the seriousness of what became known as the *bootstrapping* problem, i. e. the necessity to get UG “off the ground” in the first place. How do learners manage to pre-analyze their input to the very point where UG principles can apply? Obviously, learners’ Language Making Capacity must be able to draw on effective probabilistic pattern detection skills and on efficient strategies for resolving conflicts between competing analyses. A convincing illustration of the necessarily close alliance between UG and stochastic learning is provided by Yang (2004).

3. Structure dependency: a negotiable principle?

Following, e.g., Hawkins & Chan (1997) Meisel suggests that only parameterized properties and uninterpretable features (related to functional categories) are affected by maturation and hence become progressively inaccessible. In the course of this overall discussion, what he also claims to no longer be available to adult L2 learners is the principle of *structure dependency* (cf. section 2.2., paragraph 9: “[...] L2 learners incorporate operations into their L2 system which are not structure-dependent”). This principle, however, is neither a prototypical candidate for parame-

ter setting nor tied to functional elements. It also did not become clear to me what the example discussed in the text, “Da hat sieben Kinder diese Frau” (cf. example (1), section 2.2.), could illustrate with respect to either structure dependency or (supposedly) deviant verb placement. This pattern would certainly be compatible with a stylistic extraposition rule, a problem with scrambling, or even with the assumption that, in this particular case, *da* functions as a subject placeholder.

4. German as an early L2: a null hypothesis for both syntax and inflectional morphology

Jürgen Meisel discusses three dimensions for comparing L2 learners of different ages with L1 learners: success (or ultimate attainment), developmental path, and speed. He contrasts his position (early L2: success in the domain of syntax, problems with inflectional morphology) with that of Schwartz (2004), who argues in favor of parallels in L1/early L2 morphology but sees problems in the domain of syntax. In what follows I suggest that recent studies with young L2 learners of German support the null hypothesis *for both* subject-verb agreement and verb placement, at least for L2-children aged 3–5. As a matter of fact, some young L2 learners may even outperform L1 learners in terms of speed. In this context, it is particularly interesting to look at children sharing the same L1 background in order to rule out differences due to L1 interference/transfer.

We conducted a longitudinal study involving eight L2-children with an onset of acquisition (AOA) between 3;0 and 4;7, the moment when they entered kindergarten and encountered German for the first time on a regular basis (cf. Thoma & Tracy 2006, Tracy & Thoma in print). Their first languages were Arabic (Tunisian and Syrian), Turkish and Russian, languages differing significantly from German in morphological type, word order, and range of functional categories. All children attended different multilingual kindergartens where German served as the *lingua franca*. No special language training programs had been implemented at the time of the study. For more than a year we conducted bi-weekly recordings, and we also obtained several L1 recordings per child with the help of native speakers. In particular, we investigated how young L2 learners of German converged on the pattern for main and subordinate clauses shown in (1).

- (1) a. Main: (XP) V2{+fin} VE{–fin}
 b. Sub.: COMP VE{+fin}
 ↑_____ SENTENCE BRACKET _____↑

The following two graphs show the development of verb placement and inflectional morphology in two girls, RNV and RAS, who share the same L1, Russian. We differentiated between all verbs in a sentence (V) and verbs placed in the left sentential bracket (V2), the canonical position for finite verbs in German main clauses, cf. (1a). V2 was then further subcategorized into verbs that were finite although their morphology was deviant (V2 fin), as in *du *geht da rein*, ‘you *goes in there’, and into a category of finite verbs whose inflection conforms to the target (V2 fin+).

In general, it could be shown that the developmental milestones familiar from L1 acquisition, corresponding roughly to VP, IP, and CP, emerged in a qualitatively and quantitatively similar fashion. For RNV, fast convergence towards V2 is clearly visible in the quantitative development displayed in fig. 1. The proportion of her V2 clauses rises to a level of about 30% of her total sentences. V2 and finiteness develop in tandem, and morphological markers are almost always target-like, as can be seen in the three overlapping curves.

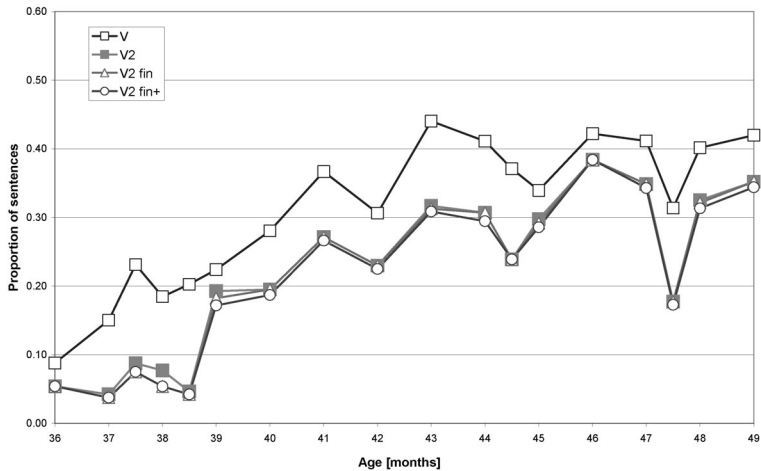


Figure 1: RNV: development of finite verbs, based on 18 L2-transcripts; 3758 sentences

Two months later, and altogether eight months after the onset of regular exposure to German, RNV also produced precursors of subordinate clauses (3;9 *ich will nicht [vaf] du hast gewinne*, ‘I want not what you have won, ‘I don’t want you to win’; this interpretation was inferrable on the basis of the context). These sentential patterns were considered “precursors” because they initially employed placeholders as comple-

mentizers, and verb placement did not always conform to the target (for similar L1 data cf. Gawlitzek-Maiwald et al. 1992).

A somewhat different developmental picture emerged for RAS, the second girl speaking Russian as her L1. For quite a long time she mainly produced verbless multi-word constructions, often in combination with verbal particles and focus particles (3;9 *und des auch Baby-Schweinchen*, 'and that also baby piglet'). Whenever verbs appeared, they were non-finite and occurred in final position (cf. 3;7 *da ich Apfel essen*, 'there I apple eat, 'I'll eat an apple there'). After RAS' first attested German utterances, it took her almost a year to reach the developmental stage the other project children had attained after four to six months. Her significantly slower convergence onto German clause structure is obvious from the quantitative analysis shown in figure 2. Only after nine months is there a marked increase in verbs and in the relative proportion of V2 clauses as compared to mainly non-finite VPs. But even for this slow learner, V2 and subject-verb-agreement emerge in tandem.

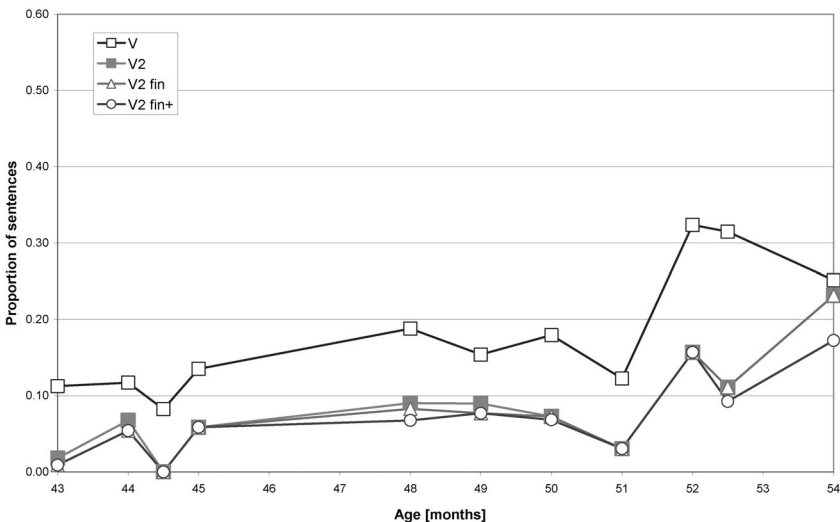


Figure 2: RAS: development of finite verbs, based on 11 L2-transcripts; 1750 sentences

At least two plausible explanations for RAS' relatively slow progress towards the target grammar offer themselves (cf. Thoma & Tracy 2006, Tracy & Thoma in print). First, for a long time, RAS produced very few verbs, both in types and tokens. On the (cautious) assumption that she could not easily identify verbs in the input, she obviously missed the evidence needed for (re-)constructing the two positions relevant for

verbs, i. e. the sentential bracket of (1) above. Nevertheless, RAS' verbless projections already included focus particles and allowed her the production of quite long utterances, such as *Celine auch Burtstag Mama* (Celine also birthday Mama, 'Celine's mother also has a birthday'). Second, RAS was extremely shy and generally preferred to play on her own, showing very little communicative initiative. Hence she also missed out on opportunities for obtaining more "primary linguistic data" from potential interlocutors. In both respects she differed markedly from children whose overall development progressed faster. Now, without this additional 'personal' information about RAS, one could easily blame her slow development on the fact that she is about half a year older than RNV when entering kindergarten, namely 3;7. While age may play a role, this factor is easily confounded with general communicative behavior and its concomitant consequences.

In general, our case studies show that (a) the acquisition of V2 (including V2 effects, i. e. non-subjects in preverbal position) can proceed quite speedily, taking up 6 to 12 months for the small sample of our project, (b) whenever verbs are in V2, they tend to be inflected, and (c) choice of finiteness/agreement marker is highly consistent with the target. We even find this very same developmental pattern in older children, i. e. in at least one boy starting at age 4;7 (cf. Tracy & Thoma, in print). This supports the hypothesis that at least up to the age of 4–5, L2 acquisition can proceed like L1 for both syntax and (inflectional) morphology. Confirmation of this overall developmental pattern, at least for children with AOA 3–4, comes from the longitudinal study by Rothweiler 2006 (cf. also Kroffke & Rothweiler 2006) and from the cross-sectional investigation with monolingual and bilingual children by Schulz et al. (2008).

5. What bilingual acquisition (2L1) and early L2 suggest about maturation and about L1

Many researchers have stressed that early bilingualism offers a perfect 'natural' experiment (cf. Meisel 1989, 1995, de Houwer 1995, Schwartz 2004, among others). A most intriguing case in point arises in those simultaneous bilinguals who exhibit striking asymmetries in their two languages, with one being faster than the other in specific, comparable domains. Asynchronies between a young bilingual's first languages provide us with unique opportunities for teasing apart general cognitive and language-specific aspects, for assessing the relative complexity of the linguistic systems involved, and for testing maturation hypotheses, one of the crucial issues under discussion here. Whenever, despite sufficient input in both languages, a certain (sub-)system in language A (for instance subject-verb-agreement/finiteness) emerges weeks or months be-

fore the comparable (sub-)system in language B, maturation cannot be the *only* explanans (cf. Bernhardini & Schlyter 2004, Genesee et al. 1995, Gawlitzek-Maiwald & Tracy 1996, Lleó 2006, Müller et al. 2007², Tracy & Gawlitzek-Maiwald 2000). This also means that even before the ages identified by Meisel as relevant maturational thresholds, we face essentially the same questions: What property is attributable to maturation, to maturation in combination with other factors, or to altogether different determinants? And how can we possibly explain developmental asynchronies in children younger than 4?

On the positive side, bilingual first language acquisition and early L2 acquisition provide us with ample evidence for the remarkable ability of language learners to cope with coexisting and potentially competing structural alternatives, including opposed parameter values, such as for English vs. German VPs. But even in L1 acquisition, intra-individual variation, the optionality of finiteness and subjects, the coexistence of old and new patterns etc. suggest that learners have no problems entertaining several linguistic (sub-)systems at a time (cf. also Verrips 1994, Gawlitzek-Maiwald et al. 1992, Hohenberger 2006, Yang 2004), a point also raised by Roeper (1999), Kroch (2001) and Lightfoot (1999), among others. Hence one might claim that all children start out as bilinguals (or rather multilinguals) anyway, proceeding very much like simultaneous bilinguals who manage to keep their input languages apart, until they find sufficiently strong evidence for convergence (cf. Tracy 2002, Gawlitzek-Maiwald & Tracy 2005).

6. Fazit

The target paper by Jürgen Meisel tackles a number of important issues. Evidence from different types of acquisition is beginning to feed back on our conception of linguistic systems in general (for instance concerning the degree of modularity or the way in which different subsystems can be linked at their interfaces) and on the theories needed for explaining them, both with respect to representation, processing, and learnability. Even though there is a lot we do not know, we are also not completely reduced to “proceeding inductively” (cf. Meisel’s suggestion in section 2.1., paragraph 4 and section 3.) since we already have a good ‘top-down’ sense of what can be compared across acquisition types and where and how to begin to look. Without doubt, the target article will stimulate further discussion in this direction.

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