

## Parametric variation and syntactic computations

### Elements to disentangle lateness in (modes of) acquisition

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The main aim of Tsimplici's contribution, in her words, is to try to make explicit "how linguistic properties distinguishing between early and late acquired phenomena in monolingual development interact with age of onset and input factors in bilingualism" (p.2) This is an important and very well posed question. The contribution of formal studies on language acquisition, inspired by the generative approach to linguistic analysis, now makes it possible to start raising refined questions of this type, not in vacuous but in concrete and formally subtle ways, supported by an extremely rich array of empirical findings, some of which are discussed in Tsimplici's article.

I will raise a few questions and add comments on specific aspects of some of the proposals in the article, with the aim of contributing some extra consideration pretty much in the spirit of the foreseen enterprise.

One question concerns the assumed notion of macroparameter (and the related one of microparameter). In Tsimplici's words, a macroparameter is an "overarching property of a language, the backbone defining the type of language the learner is exposed to. Each macroparameter is associated with a number of microparameters which allow for variation within the same language type" (p.3).

Is the macro/micro a real formal distinction or is it mainly a useful descriptive term and tool? The ultimate search is for the minimal mechanisms that guide linguistic computations. Typically, these mechanisms do not refer to phenomena, e.g. V2, OV/VO, but to formal properties that trigger the functioning of the computational system and lead to the language types we refer to in our descriptions. Thus, is it appropriate to say that there is a V2 (macro)parameter? Rather, formal properties of the finiteness system, related to some discourse features, are responsible for the V2 outcome. The variation is thus in the features triggering

the displacement process, not in the process itself (i.e. the macroparameter). It may be noted incidentally that, as is also pointed out in the article, "... the semantically vacuous status of a macroparameter does not prevent extra-syntactic constraints to be imposed at the syntax-discourse interface" (p.8). As a matter of fact, the features leading to V2 may not be just formal features without any semantic or discourse value. As also acknowledged in the paper, V2 does express some discourse-pragmatic content, as it is not the same to have either the object, or an adverb, or a prepositional complement, or the subject satisfying V2 in the first position. The question then is: shouldn't there be a formal characterization of the relevant semantic-discourse values, in fact features, which directly affect the syntactic computation triggering syntactic movement (ultimately expressible in cartographic terms, see, e.g., Cinque & Rizzi, 2010)? The triggering engine does not seem to be extra syntactic in this case, as it involves genuine syntactic computational mechanisms. If this is the case, then the statement that the 'core' grammatical properties expressed by the macroparameters, "are products of narrow syntax which are semantically vacuous both in terms of triggers and effects" (p.3) probably needs to be somewhat nuanced.

Early acquired properties (in L1) are assumed to be macroparametric. The case studies discussed are the directionality OV/VO parameter and the V2 parameter, interacting in part (but see Schoenenberger, 2001 for late acquisition of V2 in Lucernese Swiss German). The conclusion is that early bilinguals 2L1 and early successive bilinguals (according Meisel's scale, onset before age 4) have a very early development of the two macroparameters, much as monolinguals; late successive bilinguals (onset after 4) in contrast, experience some difficulties, especially in subordinate clauses and in the production of some V3 structures. These results are interpreted as the indication that there may be an age effect only on microparametric properties associated with macroparameters. Thus, bilingual development is essentially as monolingual development in this respect, with some weakness in late bilinguals for subtle properties. This is a fair characterization, given the data discussed. Since the described non-target productions of the late bilinguals ultimately concern adequate mastery of the finite/non finite distinction (with consequences for word order in a V2 language like e.g. German), it is natural to wonder whether this could not be a sign of an L2-type problem. A late bilingual may, at least initially, experience difficulties, which are typically manifested in (even later) L2 acquisition (for some relevant considerations, Hamann & Belletti, 2006). This could be a possible partial rephrasing/integration of the conclusion that "these results point to age of onset effect on microparametric properties... (p.13)".

The following is a further aspect to consider: a well-established fact in monolingual acquisition is that children's non-target productions are often the sign of their exploration of possible grammatical options active in other languages (Crain

& Thornton, 1998; Rizzi, 2006). It is conceivable that bilinguals, who, as the author points out, have access to a somewhat reduced input in both languages — but note that for the same reason they are also possibly exposed to a wider array of options due to the multilingual input — may be even more prone than monolinguals to trying out possible grammatical options. Some V3 structures are known to be possible in some V2 languages (e.g. Icelandic; Thrainsson, 1986); it is worth exploring whether the type of non-target (in German) V3 found is in fact possible in some other (V2) language. This type of error could also stem from (limited) cross-linguistic influence (of the L2 type, in the French-German combination).

In the keynote paper, age of onset is assumed not to play a role in differentiating simultaneous and early bilinguals from late bilinguals in the acquisition of properties that are late acquired also by monolinguals, as external factors other than purely grammatical formal ones are taken to be responsible for the lateness of their acquisition. Hence, the fact that certain properties are acquired late also in monolingual acquisition somehow compensates for the lateness of the onset problem, which otherwise typically negatively conditions late successive bilinguals. This is an interesting hypothesis and an ingenious way to try to tease apart potentially different factors: not all late acquisitions are of the same type in late successive bilinguals. Among the late domains of acquisition mentioned, two are of particular interest, on which I would like to focus more closely: object relatives and passive.

Whereas the problem in the object relative case is identified by Tsimplici in the computational dimension as crucially involving the locality principle Relativized Minimality (following Friedmann, Belletti & Rizzi, 2009), the passive is taken to be late for reasons mainly due to lexical semantics and the assumed related relatively late acquisition of (some) verb classes. In fact, some computational factor may also be involved in the relatively late acquisition of what we call passive. Consider the following. The “construction” that we call passive is a collection of operations and properties, which involve (at least): a particular voice/morphology, its syntactic property of triggering movement of a chunk of the verb phrase (Collins, 2005), the further movement of the internal argument of the verb into the subject position of the clause (or some other position in languages admitting post-verbal subjects), the overt or non-overt expression of the phrase expressing the role of the external argument (the English *by*-phrase). It could very well be that this collection of computational ingredients may turn out to be responsible for a certain complexity associated to the passive computation (Hyams & Snyder, 2005; Belletti, 2012), as not all of them could be equally easily acquired. The difficulty could stem from: the identification of the component of the passive voice attracting movement, the identification of the relevant chunk of the verb phrase to move, etc.. Recent findings have shown that, under certain conditions, even young monolingual children

do in fact master the passive “construction” (e.g., under priming — see Manetti, 2013 for Italian, which aligns with the results quoted from Tsimpli, 2006 on Greek, using different methodologies). Thus, lateness mainly concerns the spontaneous production of passives, as is also said in the article. The overall computation is somehow demanding for an early computational system, hence it is spontaneously accessed only later. One may expect that very late bilinguals could then perform even better than young monolinguals or early bilinguals on passives. However, other L2 type problems may discard the plausibility of this paradoxical expectation, especially in consideration of the familiar difficulty with inflectional morphology in this population. There are then various ways of being late, indeed.

In sum, one question that is opened by this article is what “late successive bilingual” really means. In terms of onset it is situated after age 4; when and how do we switch from identifying a speaker as a late successive bilingual to ranking him/her as in fact an L2 acquirer (i.e. typically an adult or else a young L2)?

Another domain identified as late is pronominal reference in anaphora resolution contexts (e.g. the contexts discussed in Sorace & Filiaci, 2006; Tsimpli et al., 2004, and the references cited in the article). Lateness here is claimed to be due to the interaction of grammatical properties with several “external” factors such as “cognitive control in memory, updating and inferencing, and a developed social cognition” (p. 15). An interesting question that this way of approaching the problem opens up is the comparison between this relatively late domain of appropriate use, with the related, but this time early acquired domain concerning the early mastery of principle B in clitic languages (of the Romance type). Despite the difficulty that even monolingual children initially experience in the acquisition of the complex cliticization process (and even more so, early and late L2 speakers), yet referential properties of pronominal clitics, ruled by principle B, are readily acquired from early on (as in the classical findings of McKee, 1992; residual contexts such as ECM aside). Thus, the formal requirements of binding theory appear to have a different status from issues related to appropriateness and use, a conclusion very much in the same line as the one endorsed in the article.

This is a thought-provoking article, which stimulates reflection on fundamental issues, and which, most of all, succeeds in meeting one of its basic aims: it shows the important contribution of linguistic theory in raising precise questions. This should lead to a better understanding of development also in the domain of bilingualism, a domain in which internal and external factors are tightly interconnected in peculiar and complex ways.

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