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Semantic-informational and formal processing principles in Processability Theory

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Let me begin my comments on Pienemann's keynote paper by expressing my admiration for the scholar who has developed Processability Theory (PT) over a period of some fifteen years with great determination and perseverance. What in earlier publications (e.g. Pienemann, 1985, 1987) appeared to me to be a rather disparate set of principles aiming to account for a limited set of empirical data (the well known sequence of five word orders of the ZISA study), has now evolved into a coherent theory which meets the demands of falsifiability, as PT's claims are formulated in sufficient detail to allow SLA researchers to put them to empirical test. PT comprises a number of principles of great generality, accounting, in principle, for the acquisition of any structure in any language, thereby exceeding the limits of the ZISA data of natural German L2 acquisition. As such, it is to be hoped that PT will have a healthy influence on the field of SLA research, as this field, in the last few years, has perhaps been dominated too much by the issue of whether L2 learners have access to Universal Grammar.

Now that PT has grown to full stature, many of the concerns I raised ten years ago (Hulstijn, 1987) have vanished. Yet I still have some reservations concerning the claimed psychological plausibility of PT, which I will specify in the remainder of this commentary.

(1) It is not clear to me what PT's claims are concerning the acquisition of subject-verb agreement (SV AGR) in German L2. Pienemann's paper at some points suggests that SV AGR can be processed (i.e. acquired) before verb separation (SEP) and inversion (INV), but at other points suggests that it can be processed and acquired after SEP, simultaneously with INV. The first claim runs counter to PT itself and the second is hard to accept on cognitive grounds. Saying that SV AGR can be acquired before SEP amounts to saying that feature unification at the clause level can be acquired before feature unification at the phrase level, which is at variance with one of the central claims of PT. On the other hand, the claim that SV AGR can only be acquired after SEP runs into other difficulties. From a cognitive perspective, in contrast to a linguistic perspective, it might be argued that the difference between "das Kind spielt" (the child plays) and "die Kinder spielen" (the children play) is a semantically and communicatively more important distinction than the semantically and communicatively void difference between VPs such as "muß machen die pause" (must make the break) and "muß die pause machen" (must the break make). On cognitive grounds, one might therefore expect learners to implement correctly SV AGR before implementing SEP. I wonder whether Pienemann could inform us what his German L2 data (both the cross-sectional ZISA data and the long-

itudinal data collected among Australian learners of German) reveal in this respect. Did learners produce SV AGR in SVO sentences before they produced SEP? My expectation is they did. Similarly, why is it that learners produced INV in WH questions before they did so in declarative sentences beginning with an adverbial phrase? Isn't this because INV in the former case is semantically motivated, whereas INV in the latter case is an exclusively syntactic procedure? Shouldn't the (triggering?) role of semantics then be more fully integrated into PT?

(2) All processing prerequisites in PT except one are formal in nature. These are the lemma, category, phrase, sentence, and the subordinate clause procedures. PT invokes only one non-formal principle, namely perceptual salience. This is done to account for the occurrence of adverbials at sentence initial or final position (ADV). Being the only non-formal principle, perceptual salience in PT has the appearance of an ad hoc principle. It seems to me, however, that a theory which aims at providing a full explanation of SLA should be based on both formal (morphosyntactic) and "informational" principles, which are to be integrated in a developmental pattern. Such an approach to language development calls for a competition model. In the earlier stages of language development, informational principles will rule, as it were, with absolute power (as has been demonstrated by researchers involved in the ESF project; see, for instance, Klein and Perdue, 1992). In later stages, various formal principles are acquired (perhaps in the order as outlined in PT), limiting the possible forms utterances can take. However, even at the final stage of acquisition, utterances are never exclusively determined by formal principles (e.g. in the linear ordering of topicalized and focused information). This calls for a theory specifying the time course of the competition between semantic-informational principles on the one hand and formal processing principles on the other.

In conclusion, PT now deserves to be called a true SLA theory. Its author is to be complimented on it, and the field of SLA research should take note, as PT contains many falsifiable claims and hence has the potential to affect SLA research in a fruitful way. In my estimation, however, PT has not entirely succeeded yet in explaining how language learners cope with informational and linguistic demands at various stages of language development. The role of non-formal principles, such as perceptual salience, deserves to be fully integrated into PT, allowing semantic-informational and formal principles to compete with each other in different ways at different stages of development. I hope Pienemann will strive to develop further PT along this line.

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