

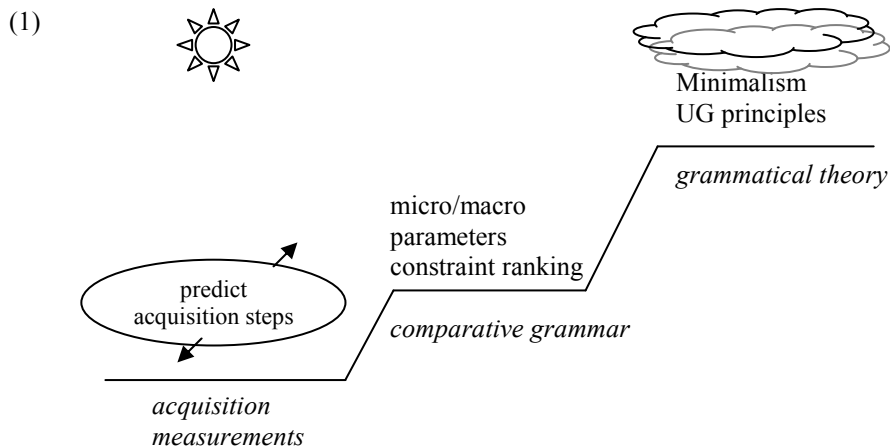
Towards a Theory of Language Acquisition

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1. Acquisition measurements and goal

We have seen at the workshop a diversity of measurements and a no less diverse amount of different phenomena. Shared areas were acquisition phenomena in Romance languages and more general: the beginnings for a true theory of language acquisition. I will not attempt to evaluate the various contributions here. All of this must get its time to sink in. Yet, the general point of our endeavors, - the theory of language acquisition -, may be underlined to gain a further outlook.

The “hands-on” characterization of the workshop topic should mention the improved measurements techniques (elicitation tasks, judgment tasks, gap-filling tasks, story-retelling tasks, error quantifications, longitudinal acquisition graphs). We may now wonder where we expect to arrive when we hold on along those lines for the next five or ten years. Let me offer the following cartoon.



On the left, we have a plain, not to say a swamp, full of eco-diversity representing the diversity of acquisition measurements. On the right we see the high mountain of deductive grammatical theory with Baker’s typological macro-parameters and universal principles. It consists of deductions under the heavy sky of Minimalism.

In between, I imagine the sub-plateau of comparative grammar. Here we have the micro-parameters of the kind considered by Kayne (2000) to handle the North-Italian dialect variations. The flexibility of the micro-parameters may show how input controls micro-acquisitions. The sub-plateau also contains the ranking of Optimality constraints (Prince and Smolensky 1993), offering a potential space to handle the dynamics of acquisition. The underground of the sub-plateau could be the

more old-fashioned conception of markedness that goes back to the visions of Jakobson (1942) and Trubetzkoy (1939), two generations ago.

I think we will see how our work (experimental and file frequency measurements) will continue to find points of contact with comparative grammar. Besides that, I expect that a more constructive approach will develop, one that will predict beforehand the order and relative speed of the steps in language acquisition, given the type of grammar.

2. Is language acquisition a performance in slow motion?

The abstract theory of grammar in its general exposition will seldom fail to mention language acquisition as a crucial point, but only in a philosophical spirit. Such references to language acquisition are hardly ever followed by references to the actual study of language acquisition. The abstract theory of grammar is not comfortable with what we do. They may label that as surveys of performance data. I do not mean to complain about the theoretical grammarians. Grammatical theory on its own is bound to remain locked up in its own methods and devices. That is even a very good thing. The analysis of competence should precede the analysis of performance. Relevant performance data are hard to come by, but language acquisition might be seen as performance in slow motion. If there is a need for a general theory of grammatical acquisition as a performance activity, it is up to us to develop such a vehicle. I think we will do it. The questions to be considered are all about the hierarchies in the grammatical system and how broad decisions about the system support the subsequent more narrow decisions, cf. (2).

- (2) a. How does acquiring one set of features influence the other ones?
- b. Is there a predictable order of acquisition steps?
- c. Can the relative period of an acquisition phenomenon be predicted?
- d. Why exactly are interface conditions such a barrier for acquisition?
- e. What helps transfer in dialectical change and what blocks it in second language acquisition?

The ranking of parameters/features in an acquisition hierarchy is a major issue. The acquisition steps that set the parameters are taken in a linear order that impresses me as a causal chain. Each successive acquisition step shifts the focus of the learner to a new parameter. A direct example I know of is the acquisition of finiteness marking on the verb (I^0). The acquisition of finite verbs precedes the acquisition of determiners (D^0) in both Romance and Germanic languages (Van Kampen 2004). These steps offer the underpinning for all further acquisition steps. Agreement between subject DP and finite verb comes in later, and may appear as a final touch rather than as a structural underpinning.

The general issue and our chances at continued progress and relevance could be phrased in the following way. Our acquisition data are highly predictable. The acquisition order in first language acquisition and the relative period it takes to acquire a construction are parallel for all children acquiring the same language.

Order of acquisition and relative speed are not contingent properties. Hence, they have to be predictable from the type of grammar.

As far as second language learning is concerned, an experienced teacher can estimate someone's level from a short conversation. So, in second language acquisition we should be able to figure out how such estimates derive from the theory of grammar. We should get to understand why some properties of grammar are quite well learnable in second language acquisition, whereas other ones are hardly learnable at all. The answers to such questions will be given by our type of investigations, and they are bound to be relevant to assumptions about the design of grammar. I feel we should have high expectations about acquisition research.

3. The task at hand

I was inspired about this by an article in Scientific American (Ross 2006) that dealt with the memory organization of chess masters. These super-performers have developed an immense high-speed memory for configurations of chessmen in real games. Such a memory must have cost them some ten years of intensive daily training. Yet, there is no transfer from this memory to other games or activities. The memory is highly task-specific and flexible in quite specific ways only.

This reminds of language. We are all grandmasters in our native language, and the amount of training needed for the various parts of grammar and lexicon has been extensive and can roughly be predicted. Yet, there is only a limited amount of transfer when learning other languages. Second language acquisition is difficult and asks for a considerable amount of additional training. How does that tally with the undeniable evidence for a UG frame? A first approach may be that we see how the acquisition procedure in child language is structured and builds up an effective memory.

- (3) Predict the order of acquisition steps and the relative time, the training, needed for each acquisition step given a grammar

There is a highly practical side to this program as well. A theoretical insight in the training needed for grammatical and lexical habits may help us organize the massive amount of second language learning needed for the present century.

So, it is defensible that we work on these issues. The apparent diversity of our work is directed at a common point, the learnability of natural language as we see and hear it happen in actual practice.

References

- Jakobson, R. (1942) *Kindersprache, Aphasie und Allgemeine Lautgesetze*. Upsala: Uppsala Universitets Årsskrift.
- Kampen, J. van (2004) 'Learnability order in the French pronominal system', in: R. Bok-Bennema, B. Hollebrandse, B. Kampers-Manhe and P. Sleeman (eds.) *Selected Papers from Going Romance 2002*. Amsterdam/Philadelphia: John Benjamins, 163-183.

- Kayne, R.S. (2000) *Parameters and Universals Oxford Studies in Comparative Syntax*. New York: Oxford University Press.
- Prince, A. and P. Smolensky (1993) 'Optimality Theory: Constraint interaction in generative grammar', Technical report. Rutgers University Center for Cognitive Science.
- Ross, Ph.E. (2006) 'The expert mind', *Scientific American* August 2006.
- Trubetzkoy, N.S. (1939) *Grundzüge der Phonologie*, Prague: Travaux du Cercle Linguistique de Prague 7.