

XS and enhancement in phonological acquisition

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On the Hauser, Chomsky, Fitch (HCF) conception, with recursion as a species-specific mechanism, phonology is involved as well as syntax, as HCF's wording allows. By SPE, it is assumed here that some unification between syntax and phonology is desirable in principle, but now with reference to Borer's 2005 XS model, distinguishing lexicon and encyclopedia, the latter consisting wholly of non-functional elements with no syntactic information, giving the post-lexical phonology more to do than previous models, with syntactic variation solely by the projection of functional elements, from Borer (1984).

By any model, the input must be fully interpretable in finite time. Here it is proposed that the capacity for acquisition is by the interpretation of necessarily ordered projections within one 'learnability space' with features docking on the prosody, subject to post-lexical enhancement in the Stevens (2006) sense. The projections are subject to a generic template. This template defines the learnability space, as a cognitive domain. By a proposal in Nunes (2002), modified slightly here, this template maximises or minimises derivational length, according to the markedness of the elements involved. The decisive input data is natural phonetic variation, in the limit within one idiolect. This is consistent with sociolinguistic evidence from Foulkes, Dockerty, and Watt (2001) Features define. Gestures enhance. A phonetic / phonological form can be approximately described in more than one way, but exactly only in one. Both 'near misses' and phonetic detail can be defined without raising an issue in relation to generative capacity. Projections are definable set-theoretically. In English dialects with intrusive /r/, projection of one /r/ feature is unlimited up to the level of the utterance (the highest level, since beyond this there is no definable sense / structure commonality). In most dialects of English, voicing projects first to the coda, then to the rime, with colouration effects from /l/, and lengthening effects from stops. On the basis that derivation cannot introduce new features, and that English backness is binary, schwa is from an underlyingly featureless nuclear projection, with the phonetic implementation post-lexical. A representability inspection applies both to speech and to the making of a lexical entry as a one-off event.

The main motivation for this proposal is the systematic asymmetries in acquisition from 2;0 to 8;6 as set out in Nunes (2002), developing previous observations by Cruttenden (1978). By the learnability template and representability inspection, in developing idiolects enhancement is misconstrued as definition, and one markedness value has opposite effects in relation to the development of the phonemic inventory and the post-lexical phonology. Child-speech is the result.

This is an XS Phonology, defined by projection and derivation. This reconciles 'intrinsic' and 'extrinsic' approaches to under-specification, gestures and feature geometry, and suggests a possibility of reconciling some seemingly contradictory results from laboratory and generative phonology. On the basis of generalised decision-trees, acquisition is internally consistent. In a way quite different from syntax, phonological recursion, by the feature geometry and levels, is plainly finite.

References – explicit and implicit

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