Two ways to acquire language without parameters –

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It is not controversial (mostly) these days to postulate some innate structures specific to language to account for its acquisition in the context of the Poverty of the Stimulus. The dominant model in Generative theories is still “Principles and Parameters”: infants are equipped with a set of binary parameters that can be “set” to one value or the other by minimal exposure to samples of its language-to-be. A standard example is the head-initial (English) vs head-final (Japanese) parameter: it is commonly believed that early exposure to even simple sentences provides enough evidence for the child to establish the appropriate setting.

Numerous problems arise in using parameters as the innate basis for language acquisition. Most notable are: there are many languages with inconsistent or only partial settings, requiring postulation of “micro-parameters” ad lib,; the acquisition model requires an initial ability to parse sentences, at least in part; it requires an I-language “tool kit” to construct and integrate derivational structures; even when softened from their brittleness by statistically gradualist inductive learning models, the previous limitations still obtain.

We present two (very different) models of how language acquisition could work without parameters. They each assume some form of parsing to be innately available to the infant, and assume a schema for generating alternate languages. In both cases, we concentrate on the acquisition of the syntactic component of grammars.

1. Language acquisition as implicit problem solving (TgB)

Let’s start with three nativist assumptions different from paraemters: humans uniquely interpret most experiences as problems to solve, either explicitly and (much more often) implicitly; children have a basic ability to form (sometimes incorrect) constituents and relate them to meanings; children have a prodigious ability to acquire words – mapped onto internal conceptual structures.

If we assume that the child uses implicit problem solving strategies to learn language we can explain a lot of things that syntactic theory does not explain - or even try to.  The problem solving model I refer to is the one proposed by gestalt psychologists – when there are two conflicting obvious representations of a situation, access a different dimension (thereby releasing the “aha” reaction). In language acquisition this can be viewed as pairing a particular external scheme, eg N…V…X as mapped directly onto a particular meaning, .. Agent….Predicate….X’ (meaning of X).  When a form shows up violating this pattern (e.g. a short passive), access the innate I-language building tool kit and construct an inner form mediating between the surface forms and meaning, e.g., ye olde deep structure + distinct derivations.  aha!

Phenomena this model can explain that syntactic theory does not include:

Presence of “canonical forms” in all languages (not just in syntax).

Erratic harmony of patterns across categories.

Language change as a function of performance and competence.

Early formation of structure dependent processes (albeit incorrect at first).

A dynamic model of individual motive and action in acquiring the language.

Potential unification with the uniquely human zeal to find and solve problems.

Allows for role of ungrammatical, incomplete sentences in acquisition.

2. There is only one grammar, postulated to be innate (D.M.)