An **I-LANGUAGE** (I-L) is a system represented in the mind/brain, ultimately by physical mechanisms, and in this sense internalized; it is a particular characterization of a function that takes physical events and things and assigns status to them. These are real things and it is these that we should focus on in language study—language study becomes empirical science.

I. **For Chomsky, the terms 'language', 'grammar', and 'universal grammar' have the following meanings:**

   • *language*: an I-L.
   
   • *grammar*: a theory of an I-L.
   
   • *universal grammar* (UG): a system of principles that specifies what it is to be an I-L.

II. **The Theory**

   A. Locate the UG in the *language faculty*, which is the subsystem of the organism responsible for the language and a species property; the UG is a component of the mind/brain and constitutes the initial state of the language faculty, modified over time by exposure to data. An I-L will be the state attained by the LF under certain conditions.

   B. Initially, the language faculty consists of a *lexicon*, or collection of words, understood to have structural, semantic, and phonological properties, an *initial state*, determined by the principles of UG, and a *computation engine*, which generates strings of lexical items in a way constrained by UG. The principles that constitute UG determine lexical categories, lexical combination, etc., but they are flexible: they have *parameters* that can be variably fixed on the basis of the perception of data. These principles have a physical realization, and this is modified through exposure to linguistic usage. What results is a mature I-L. (*Principles & Parameters* approach.)

   C. The language faculty interacts with various *performance systems*, principle among them being the *articulatory/perceptual system*, which controls the production and reception of linguistic events, and the *conceptual/intentional system* (or "belief system"), which determines the content of interpretations and what is said.

   D. The variety of languages is explained by the fact that the parameters can be fixed in different ways. There are finitely many languages—*not* an infinite variety.
III. Knowledge and I-Languages

A. There is a substantial epistemological side to this investigation, since an I-L enables the agent to do certain things: having an I-L is to know a language. But what is it to know a language? That is, what is the internalized system of knowledge that a speaker acquires? (This comprises both know-how and know-that.)

B. For Chomsky, there are four questions that the science of language should answer:

- What is the system of knowledge attained by one who speaks the language?
- How is it acquired? (Plato's Problem)
- How is it put to use? (I.e., produced [Descartes' Problem] and perceived.)
- What are the physical mechanisms that make it possible?

C. Chomsky works through three approaches to these questions:

1. Habit System (or Abilities): this is inadequate as it pertains to questions (1) and (3). (Improvement, drugs, and an empirical zero)

2. Rule System: this is the beginning of generative grammar, and it was empirically substantial, but it fails because we have no way of knowing why this rule system as opposed to that one?

3. Principles & Parameters: this is the one that currently dominates.

D. Lessons and Implications

1. Each step deepens the study and changes the nature of results.

2. Small variations can give rise to very different languages.

3. We can learn the language and the vocabulary with very little data—this poverty of stimulus suggests that a large part of our I-L is innate, to include the concepts we use in filling out our lexicon and in making sense of our experience.

4. There is an empirically determined difference between questions of fact and questions of meaning, pace Quine.