

Two Theoretical Approaches to Second Language Acquisition

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In contemporary linguistic theories, two fundamental different approaches to linguistic analysis and L1 acquisition have been proposed. They are UG approach of generative grammar and usage-based approach of cognitive grammar. It is therefore not only desirable but also necessary for us to identify the implications of the two theoretical approaches for L2 acquisition in general so that we can tackle some of the specific questions arising from teaching Chinese as a second language. Because of time limit, I'll address implications for L2 acquisition in general, leaving specific issues of teaching Chinese as L2 for future discussions.

The central tenet of the generative approach since Chomsky 1957 is that human are biologically endowed with an innate language acquisition device (LAD) which predetermines children's acquisition and underlies universal grammar (UG). The logical problem for the L1 acquisition has come to known as 'poverty of the stimulus'. Children only have grammatical sentences (positive evidence) but not ungrammatical sentences (negative evidence) to construct their grammars, barring occasional corrections from parents or care-takers.

What are the implications of this UG perspective for second language acquisition? The very first question naturally arises is whether UG is also employed in L2 acquisition. But the question cannot easily be answered without addressing another basic question, that is, what is role of L1 in relation to UG in L2 acquisition. But this basic question is also tied up with the distinction between adult L2 and child L2 acquisition. The distinction is further tied up with the intricate issues surrounding the different notions of 'critical period' and 'sensitive period' of acquisition. The issues have to do not only with the age of critical period/sensitive period but also with which component and dimension of the grammar. Is the cutting-off at age 3, 5, 7, 9, or the well-known puberty (Lenneberg 1967)? Are we concerned with the native-like acquisition in phonology,

morphology, lexicon, syntax, semantics, or pragmatics, or all of the components.

We can also ask if there is a logical problem for L2 acquisition, namely, 'poverty of the stimulus', and the construction of interlanguage (IL) in various stages of second language learning. For construction of UG, what can we infer from a corpus of IL, assuming we are able to tease the role of L1 apart. Yet, the L2 acquisition, especially in the case of adult L2 acquisition, also involves formal instruction regarding grammaticality and acceptability of linguistic forms. The question is not easy to answer, but it leads us to ask the fundamental question of the role of instruction in L2 language acquisition.

Generative approach to language acquisition is often criticized for not taking socio-cultural factors into consideration. Regardless of its limitation, the language structure can be formalized and specific questions regarding the difficulty of adult L2 learners with regard to particular linguistic patterns can be answered more explicitly.

To examine the differences between the two approaches, it is also useful to make a three-way distinction between 'speech', 'language', and 'communication' in language development in general and L2 acquisition in particular. 'Speech' refers to the motor production of sound. 'language' refers to the symbol system by which sound is paired with meaning in a particular language. Linguistic 'communication' is the cognitive process of sharing ideas and feelings through language. UG is interested in language but not communication, as often emphasized by Chomsky and associates..

Language as a means of communication is however a centrally important point of departure for usage-based theories of language acquisition and analysis of language structure (Tomasello 2003). They take the position that children acquire language through their experience with their discourse partners in different social interactions. By 1 year old, children have already developed a theory of mind with 'joint attention' and 'joint intention' to understand language is goal-directed, and they pay more attention to the goal of language than the language itself. Language acquisition is based on social cognition, pattern recognition, and general

learning mechanisms, such as analogy, frequency, stochastic learning or other statistical learning mechanisms. Children learn language inductively on a piecemeal basis from categorical perception to pattern recognition, from small chunks of utterances to complex structures. There is no top-down innate domain-specific cognitive module of language involved in the learning process. Thus there is no deductive instantiation of innate core grammar (UG) involved.

Furthermore, the development of social cognition leads two different types of social learning, emulative learning and imitative learning, in which one copies goal-directed strategies of others. Imitative learning does not mean simple mimicking of language actions. It requires an understanding of the intention of the others so that one can achieve what the others did. Thus, the shared intentionality shown even by prelinguistic children provides the socio-cognitive basis for language use.

Cognitive grammar in general and construction grammar in particular (Goldberg 2006) are usage-based theories of grammar. Grammar results from conceptualization of reality in different socio-cultural ambience for the purpose of communication. Generative grammar accounts for language differences by setting the innate parameters, such as head-initial vs. head-final or strong (in GB) vs. weak functional categories (in Minimalism). In contrast, cognitive grammar accounts the differences through different ways of conceptualization of reality in different cultures for communicative purposes. From the UG perspective, socio-cultural environment is not important for L2 acquisition, but from the usage-based perspective, the social interaction environment not only provides the acquisition with a scaffold of building up the language but also shape the language forms directly.

The differences between innate UG and usage-based accounts of L1 and L2 acquisition can be summarized as follows.

(1) at the level of brain, UG approach assumes that linguistic representation is localized in a language-specific module with its own rules of processing (modularity thesis, Fodor 1983). In contrast usage-based approach assumes 'plasticity' to a great extent. Linguistic representation in brain can change in the course of L1 language as well as L2 acquisition and development.

(2) Children are creative and productive to start with innate UG. However, in usage-based approach, children are conservative and unproductive to start with and only gradually become productive by induction through experience. In L2 acquisition, we observe that conservative learners make few errors than aggressive learners.

(3) In UG approach, the role of input is underdetermined because of 'poverty of the stimulus' with lack of negative evidence (ungrammatical sentences). In usage-based approach, all linguistic structures emerge from generalization of the input through induction. Induction mechanisms include analogy, pattern recognition, frequency count, etc.. The role of formal instruction in second language learning would then be the facilitation of pattern recognition and drills of linguistic chunks, and the building up of complex structure through repeated use of chunks on a piecemeal basis.

(4) In UG approach, innate core grammar needs mechanism such as maturation, triggering, linking rules to activate it. In contrast, the usage-based approach requires children to figure out linguistic system by adaptive social-communicative behaviors like goal-oriented imitation through cultural transition rather than genetic transmission as assumed in UG. More specifically, the usage-based approach requires children to develop pattern recognition skill and the ability to generalize based on concrete as well as abstract analogy. It seems to be obvious that for adult L2 acquisition, the same prerequisites are required for a successful attainment of L2.

In sum, the two approaches account for L1 acquisition by children in drastically different ways. Their implications for L2 acquisition by adults identified in this short note surely raise more questions than can be answered. This note intends merely as a starting point for further discussions in more and finer details.