



## SYNTACTIC THEORIES AND LEARNING: TOWARDS A NEW TEACHING METHOD

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### ABSTRACT

*In 1960s, Chomsky introduced an idea related directly to the evaluation of theories of grammar. For Chomsky, explanatory adequacy is the grammar, which makes prediction about how linguistic knowledge is mentally acquired and represented. The nature of such mental representations is largely innate, so explanatory adequacy explains the various grammatical nuances of the languages of the world in relation to the minor variations in the universal grammar of human language. This paper focuses on the application of these approaches in language teaching which implied on the process of second language acquisition.*

### **Cognitive Theories in Language Learning**

Cognitive approaches to grammar and other psycholinguistic approaches relate grammar to mental processes and structures of human cognition. Chomsky's Theories of Transformation and Generative Grammar and others grammatical theories are the most influential that deal with the cognitive aspects of grammar. The approaches are autonomous mental faculty are governed by mental processes and operate on mental representations of different kinds of symbols that apply only within the language and extended to language teaching methodologies. Moreover, Chomsky argued that, real insight into the structure of individual languages could only be gained through the comparative study of a wide range of languages. So, the languages are inherited by the common people, what language may be whether it is the first or the second the language learning process is the same. The basic claim here is that

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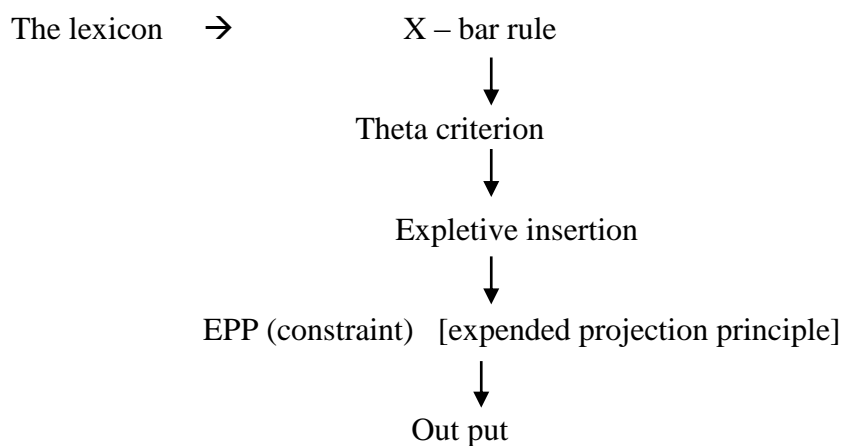
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grammar is conceptualization. Some of the theories that fall within this paradigm are construction grammar, cognitive grammar, and word grammar.

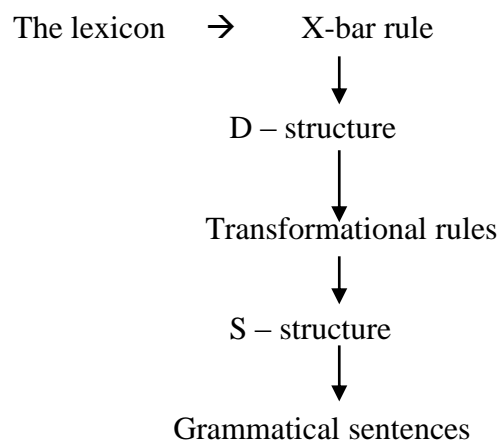
### Rule Formation in Language Acquisition

The rules of descriptive grammar are learnt by the students effortlessly. In fact, children have essentially mastered these rules on their own by first grade. Ordinarily, we are completely unconscious of the descriptive rules of language and if we become conscious of them, it tends to be in connection with learning a foreign language whose descriptive grammar differs from that of our native language.

The learning mode:



### Transformation Rules and Language Learning



**Teaching Procedure through Syntactic Theories**

Teaching sentence formation is not teaching a language. The curriculum of language teaching includes linguistic as well as pragmatic levels. Language teaching is complete when these both levels are taught to the students. To achieve all these, other syntactic theories like movement, X – bar theories and other theories may be concentrated to teach sentence formations and the same time we can use generative grammar or transformational grammar to teach other semantic, morphological and phonological level of language.

If  $S \rightarrow NP + VP$ ; or  $S \rightarrow NP + VP + NP$ , this rule can be evaluated to more sentences by the students with limited vocabulary.

For Example

If we teach how to construct an NP in this string,

$NP \rightarrow (D) + (QUATI) + (QUALI) + (CLASSI) + (CLASIFI) + HEAD N$

If five constituents are optional in this phrase the maximum phrases are created by this

$$\binom{n}{x} = \frac{n!}{x!(n-x)!}$$

x=1

292 ph. S are available if ( opt.is 4) in this expansion the position for correct strings

we have

$$n$$

$$\sum_{r=0}^n nC_r$$

$$r=1$$

$$\text{max}_i = 15 \text{ (if opt. is 4)}$$

### Teaching VP: Form and Concord

In developing a linguistic model for the Spanish VP guided by Chomsky (1965), Stevens (1966), Jacobs and Rosenbaum (1968) and Falk (1968), which we interpret as follows:

VP → AUX + VERB(s) + (ADVERB);

If AUX is  $\Phi$  / modal AUX, VERB(s) is finite

If AUX is 'DO', VERB is finite

If AUX is 'BE', VERB is present participle/ past participle

If AUX is 'HAVE', VERB is been + past participle/ past participle

### VP aspect

The aspect determiner is AUX. so,

If AUX is DO or  $\Phi$  the aspect is simple

If AUX is BE with present participle the aspect is progressive and if be + past participle; the aspect is simple

If AUX is HAVE / HAVE + BEEN, the aspect is non progressive

If AUX is HAVE+BEEN with present participle the aspect is perfect progressive

### Teaching morphology

#### M- Rules: Word Level Syntactic Rules:

1. NPl → Ns + Pl [ NPl – PL NOUNS] EX: dogs, cats
2. Vpast → Vs + Past [ Vpast – past tense form] ex: helped, walked
3. Nposs → Ns + poss [N poss – the possessive form] ex: cat's
4. Vprog → Vs + Prog [ the progressive form] ex: helping, walking
5. Vres → Vs + pres [ Vpres present form ] ex: goes, comes
6. Nagt → Vs + agt [Nagt – agentive form] ex : teacher, driver
7. Ndim → Ns + Dim [ affectionate – diminutive noun] doggie, housise

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8. ADV → ADJs +Adv [Adv – adverb] quietly, slowly

9. ADJ → Ns + Adj [adject] dirty, watery

10. Ncom → Ns+Ns [ compound N] birdhouse, airplane

The first five rules are inflectional process and last five are derivation process

### Lexical Generalizations

The productive allomorphs of the plural, the possessive and the third person singular of the verb are phonologically conditioned and identical with one another. /-s, -z, -ez/ with the following distribution:

/-ez/ after stems that end in /sz j š ž č/, ex: glasses, watches

/-s/ after stems that end in /p t k f θ / ex: hops, hit

/-z/ after all other stems viz. those ending in / b d g v δ η m n r l / vowels

and semivowels ex: bids, goes

The productive allomorphs of the past are / -t -d -ed / and they are also phonologically conditioned, with the following distribution:

/-ed/ after stems that end in / t, d/ ex: melted

/-t/ after stems that end in / p, k, f, s, š, č, θ / ex: stopped

/-d/ after stems ending in voiced sounds except /-d/ ex: climbed, played

[Berko, 1958]

Lexical generalization may also be morphologically conditioned or irregular as in the following examples for English

The morpheme meaning knife has two allomorphs /nayf/ and /nayv/

The morpheme meaning sit also has two phonemic variants /sit/ and /sæt/

The progressive morpheme is always symbolized by the phonemic sequence

/iŋ/ ex: singing, helping, walking

The postulated basic or underlying lexical representation for the morpheme

meaning plural is phoneme /z/ ex: dogs, cats

**Type III M- Rules: Morphophonemic Rules**

f → v / \_\_\_\_\_ + Pl for a list of / f/ -stem nouns

i → æ / \_\_\_\_\_ + {past, perf} for a list of verbs containing the vowel /i/

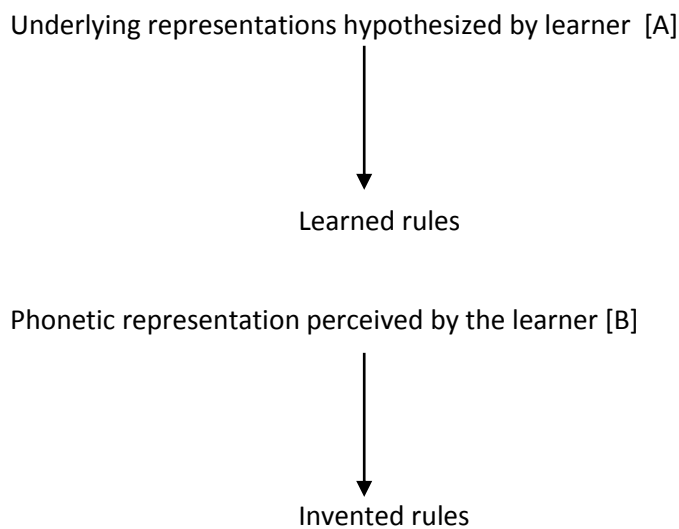
ə → Ø [-sibilant] # \_\_\_\_\_ [ +sibilant] # # [ miner 1975 and derwing 1974]

**Type IV M- Rules: Phonotactic Rules**

[ + obstruent] → [α voiced] /  $\left( \begin{array}{l} + \text{ovstruent} \\ \alpha \text{ voiced} \end{array} \right) \text{ \_\_\_\_\_\_ } \# \#$

**Teaching phonology**

**Acquisition of phonology model**



Learner's pronunciation [C]

In the early stages of language acquisition or learning, [A] and [B] coincide while [B] and [C] are maximally distinct. As the learner masters more of the phonetics after the initial period of rule invention, [C] approaches and B and the system of rules ( $B \rightarrow C$ ) shrinks.

There is evidence that rule ordering is required in learners grammars at a rather early stage. The well known phenomenon of displaced contrast must duly be described in these terms. For example, Smith's (1973) noted that his son Amdahl pronounced 'puzzle' as 'puddle' but 'buddle' as 'puggle'. The rule is

$d \rightarrow g / \_ \_ \_ |$

$z \rightarrow d / \_ \_ \_ |$

Applegate 1961 has reported an interesting sibling dialect. It was only language spoken by them and they used it in communication with the adults of the community who spoke English. From their speech the rules are made as follows

a) The second of two identical stops within a word is replaced by a glottal stop.

Ex: [day<sup>ʔ</sup>] died, [teyki<sup>ʔ</sup>] taked [pe<sup>ʔ</sup> iy] puppy [key<sup>ʔ</sup>] cake

b) Fricatives and affricates are replaced by homorganic stops

Ex: [wakt] walks (both sg. Of the verb and pl. of the noun)

Fact 1: The /t/ s and /d/ s derived from /s zç j/ by rule b did not become glottal stops by rule a even if preceded by an identical stop within the same word – [takt] talks [teykt] takes [dagd] dogs

Fact 2: The /t/ s and /d/ s derived from /s zç j/ by rule b did not trigger replacement of a following dental by a glottal stop in spite of rule a [tuwt] suit contrasting with [tuw] toot.

We hypothesize that a child who has learned two rules without encountering evidence for their mutual ordering will set up the hypothesis that they apply in unmarked order. This hypothesis should be verified by a study of children’s mistakes, where the adult language shows unmarked ordering and the child should not make mistakes attributable to marked ordering.

Example: if a child has mastered the rule determining the choice of plural suffixes in English, the suffix is /z/ and that ɫ is inserted before it after “hissing” and “hushing” sounds by the rule:

$$\text{ɫ-insertion} : \Phi \rightarrow \text{ɫ} / \text{s z j ʃ ʒ ʧ} + \text{___ z \#}$$

Suppose the learner speaks with final dental are deleted before consonant and word boundary, ex: toas’ but toaster, toasting the rule is

$$\text{t- deletion: dental} \rightarrow \Phi / \text{___} \left\{ \begin{array}{c} \text{c} \\ \# \end{array} \right\}$$

A suggestion for formalizing these ordering asymmetries and at the same time relating them to other phenomena has been to introduce the concept of opacity (converse: transparency) as a quantitative property of rules defined as follows

$$\text{A rule ( R) of the form } A \rightarrow B / C \_ D$$

is opaque to the extent that there are phonetic representations of the form

1. A in the environment C\_\_D or
2. A (not from R) in the environment C\_\_D

(cf. Kiparsky, 1973)



Both cases are quite straightforward. According to 1, a rule is made opaque by forms that look as if they should have undergone it, but did not; according to 2, it is made opaque also by forms that look as if they should not have undergone the rule but did. Transparency is thus related to the concept of recoverability in syntax.

### **Extension of other Syntactic Theories in Teaching Grammar**

For your remembrance, the syntactic theories and its relevant grammatical categories are tabularized here. The following table shows the relationship between the grammatical rules and grammatical items.

Structural relations -----	the dominance, precedence, C-command, grammatical relationship
Binding theory -----	binding, anaphors, pronouns, R-expressions
X-Bar theory -----	adjuncts, complements, specifiers, word order, CP, TP DP clauses
Movement -----	verb movement, NP/DP movement (passive, case) wh- movement
Minimalism -----	cross-linguistic differences

### **Merits and Demerits in this Approach**

In his paper fundamentals of language and fundamentals of teaching: the necessity of crossbreeding, Dean H. Obercht has explained more merits and demerits of using transformation generative grammars in second language teaching. Though this type of generative quality of syntactic development is found and taught to the students in sentence formation, the students should be familiar with parts of speech and should possess at least some extended vocabulary.

#### **Merits**

1. The substitution table may be used to be practiced to create more sentences. The thought experiment proves that a child can create more sentences with given limited vocabulary and formula. The substitution table is different from

this model, because this model is liable to create more sentences with limited vocabulary.

2. Recognition of the systematic nature of language spread widely by the structuralists, including a keen appreciation of the need for facile control of the structural patterns of language
3. The notion of primacy of spoken language control is reduced or affected and the language is taught through the psycho-cognitive model.
4. A concomitant systematic and emphatic approach to phonology is achieved.
5. The generative grammarians introduced effectively the notion that the task of a language learner is to learn to produce and understand reasonably grammatical utterances in the language.

### **Demerits**

1. An overemphasis on language as unmotivated recurring structural partial- sames was popularized. The inescapable impression by students and teachers as a highly systematic but only trivially extensible code, seemingly immune to developmental or other outside pressures. A system teachable only through a fairly low level mechanical plateau, only extendable to real world use through the invocation of an apparently very large level which could only be labeled magic. In particular, syntax was largely ignored and thus left to the magic level.

But, if Language learning can be equally enjoyed by the learner as learning of logic or mathematics, this method provides comfortable situation to both learners and teachers.

2. By lack of alternative instances of obvious expertise, an overemphasis on phonological refection was introduced, plus an accompanying overemphasis and overextension of the –emic principle in applied as well as in general linguistics.

3. As a result of overemphasis on mechanical manipulation of language patterns there arose an under-emphasis on the practical transmission and reception of information about the real world. An obvious result of this is the horror many of us have felt upon discovering that a student who could manipulate pattern changes perfectly had either no idea, or worse, a wrong idea of what he was saying and also no idea when to say it.

Yet, teaching phonetics is very important because learning phonetics is the base to achieve effective communication.

4. An excessive devotion to the notion of linguistic competence appears to characterize most generative grammarians. It seems clear that even if somehow less basic linguistic performance occurs, must be accounted for however trivial it is and no matter what anyone says.

5. Concerned with a largely immeasurable competence, working linguists and language teachers are amused by the notions of at least some of the early generativists whose theories permit troublesome facts of language use and acquisition to disappear.

### **Conclusion**

Teaching language is obviously helping the learner in acquiring the target language. Our brain is innate to acquire any language at any time. It has its own process to learn the language. The language teachers should not interpret or disturb the processes of the language acquisition and they must give opportunity and environment to get the language. To adopt the linguistic competence by the learner the teacher may help them but it is not advisable for them to teach all the rules to the students. In short, whether it may first or second, the teacher is a facilitator to provide the language learner a good environment and opportunity to acquire the language through acquaint data to utterance transferring model.

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