Patterns, Constructions, and SLA Theory
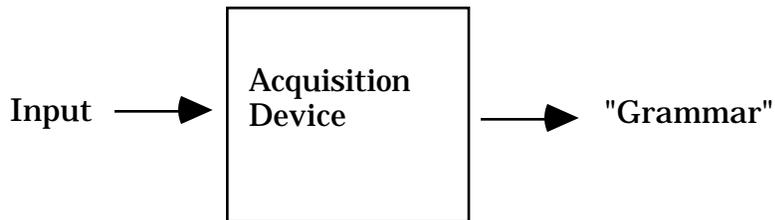Robert Bley-Vroman
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1. Introduction

The grammatical approach to language-acquisition theory.

Desirable features of acquisition theory:

For child language development:
    i. guaranteed success (under ordinary circumstances)
    ii. little room for variability in outcome
    iii. little place of input structure (correction, frequency, etc.)
For SLA:
    i. no guarantee of success
    ii. accommodation of variability, including near-natives
    iii. compatibility with our increasing knowledge of
            (a) input/task structure
            (b) attention/motivation

Suspicious facts about language acquisition:
Clustering failure
        French learners of English word order
        English learners of German word order
        pro-drop and *that*-trace
Difficulty in acquiring "subtle facts" about constructions
        French *ce* vs. *il*
        Semantics of the English double-object dative

2. Language as Patterns: The Theory of Charles Fries.

a. Conception of language
The concepts of "structural meaning" and "pattern."

Arrangement of form classes
"We concluded … that the signals for structural meaning in English consisted primarily of <u>patterns of arrangement of classes of words</u> which we have called form-classes or parts of speech." p. 74

What is structural meaning?
Two kinds of meaning: lexical and structural
Lexical: meaning of *boy*, *man, money, give,* etc.
Structural: Consider "The man gave the boy the money".

"…[W]e get from this sentence a whole range of meanings not expressed in the lexical records of the words themselves. We are told, for example, that the "man" performed the action, not the "boy"; we are told that only one man and only one boy are involved; we are told that the action has already taken place, it is not something in process, not something planned for the future; the information is given to us as a statement of fact, not something that is questioned, nor something that is requested. Such meanings constitute what we shall call the *structural meanings* of the sentence." p. 56.

Pattern: a two-part concept
    1. An <u>arrangement</u> of form classes, signalling
    2. A particular <u>structural meaning</u>

I ate fish and *I ate well* are not the same pattern.
John is easy to please and J*ohn is eager to please* would not be not the same pattern.

Knowledge of grammar.
"In so far as he has learned to respond to the signals of such structural meanings as these, he "knows" the grammar of his language."

Some actual patterns ("formulæ"):

D 1 + $\quad$ 2-d± $\;$ 4

The pupils ran out.
> The ships sailed away.
> [italic *D* is an abbreviation for those class A words we call "determiners".]
> [comment about the structural meaning of this pattern]
> "The single Class 1 word "tied" to the Class 2 word by the correspondence of number must be in the structure as "subject", and the subject meaning is "performer".

D 1^a + $\quad$ 2^b± $\;$ 4 *D* $\;$ 1^a

One difficulty is the size
My husband is the director
> [comment about structural meaning: the meaning of the "subject" is "that which is identified"]

D $\;$ 1^a *D* 1^a $\;$ 2-d *D* 1^b $\;$ f $\;$ *D* $\;$ 1^e
$\quad$ – $\qquad$ – $\qquad$ ± $\qquad$ + $\qquad\qquad$ +
$\quad$ **he** $\qquad$ **he** $\qquad\qquad$ **it** $\qquad\qquad$ **it**

This student my assistant brought the papers and the grades

"Inclusion"
Fries permits sentences to be included in other sentences; and he has a rudimentary theory of constituent structure.

b. View of second language learning

What is being learned:
> An inventory of patterns: arrangements of words with their associated structural meanings.

How SLA works (should work):
> **Not** a theory of child language development:
> "It is a mistake to think that mere listening to a language is enough for anyone but a child to learn it." (Robert Lado, *English Pattern Practice*, 1958, p. xv)

c. Methodological proposal.

1. The pattern is presented. Attention is drawn to its salient features. (using the words "**Observe**" or "**Notice**"). "Observe the position of TO and ME." This results in "**understanding**". Examples are given.

2. The structural meaning of the pattern is made "habitual" through exercises in which the vocabulary is varied, but the pattern remains constant. "THE PATTERN ITSELF, THE SIGNIFICANT FRAMEWORK OF THE SENTENCE, rather than the particular sentence, is driven intensively into his habit reflexes." (*EPP*, p. xv).

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3. Construction-specific syntax and semantics: "special constructions"
> Long live the king!

Construction grammar
Examples from Fillmore, Kay, and O'Connell (1988)

Formal idioms.
(vs. substantive idioms)
Syntax is unique: it is also hard to assimilate it to the general "core" of English sentences. Need a "conventional pairing of structure and meaning", which is specific to the construction (though not "unmotivated".)

a.   **The** bigger **the** better.
        The more carefully you do your work, **the** easier it will get.

b.   Jane and Mary are **third cousins three times removed**.

c.   I barely got up in time to eat lunch, **let alone** cook breakfast.
        (cf. also German *geschweige denn*)

From Fillmore et al.'s conclusions:
    [I]n the construction of a grammar, more is needed than a system of general grammatical rules and lexicon of fixed words and phrases.

A large part of a language-user's competence is to be described as repertory of clusters of information including, simultaneously, morphosyntactic patterns, semantic interpretation principles to which these are dedicated, and in many cases, specific pragmatic functions in whose service they exist.

[A hint that even "ordinary" structures might have construction-specific properties:]
It appears to us that the machinery needed for describing the so-called minor or peripheral construction…will have to be powerful enough to be generalized to more familiar structures, in particular those represented by individual phrase structure rules.

Construction-specific semantics of "ordinary" sentences.

(Examples from Goldberg 1995; often basing her discussion on earlier work: Jackendoff, Lakoff, Pinker, etc.)

Ditransitives
> I tossed John the ball.
> *I pushed John the ball.
> *I drove Chicago the car.

The caused-motion construction
> They laughed the poor guy out of the room.
> Frank sneezed the tissue off the table
> Sue let the water out of the bathtub
> Pat heaped mashed potatoes onto her plate.
> (Pat heaped her plate with mashed potatoes.)
> *Pat heaped mash potatoes.
> ?*Pat heaped her plate.
> *The mashed potatoes heaped onto her plate.

Resultatives
> I brushed my hair very smooth.
> He roared himself hoarse.
> *He talked hoarse.
> The river froze solid.
> *The river froze itself solid.

The *way* construction.

> He dug his way out of prison.
> *Frank dug his way out of prison but he hasn't gone yet.
> *?She ran her way to New York.

Other cases of particular conventional pragmatics/discourse function

a. Why don't we go to the movies?
b. Don't you want to go to the movies?
c. What John dislikes most is shaving himself.

Conclusion: The grammar licenses individual constructions by virtue of general rules (learned, arguably, with principles-and-parameters techniques). But individual constructions also have particular properties. It must be possible for speakers to "break out" individual constructions and assign meanings/pragmatics/discourse functions to them.

4. Core and periphery: the concepts of the Chomsky school

Chomsky argues that not all of language need to be accounted for by the theory of principles and parameters. Some things are idiosyncratic facts of the language and do not necessarily conform to the general patterns. However, workers in generative grammar have not typically been interested in peripheral constructions and have avoided irreducible peripherality wherever possible.

Still, Chomsky observes about the periphery:
> "…outside of the domain of core grammar we do not expect to find chaos. Marked structures
> have to be learned on the basis of slender evidence too, so there should be further structure
> to the system outside of core grammar." Chomsky LGB p. 8.

The syntax of *not* and of *Do*-support as peripheral

Baker (1991) proposes that the English periphery contains the following stipulated parts:

    a.   A "special-purpose verb phrase headed by *do*.

    b.   Modals, *have* and *be* can use the general-purpose phrase as the special purpose phrase

    c.   There is a rule moving finite verbs obligatorily to the left of *not* and this rule requires a special-purpose verb phrase.

    d.   Unstressed finite (auxiliaries) move to the left-periphery of their phrases

"English is an Infl-lowering language, pure and simple, and that those English phenomena which mimic the core of French are to be accounted for not by core grammar, but by rules of the periphery." p. 428

Note that the peripheral rules include rules of movement. (think Pienemann)

Other possibilities:

       too good

       good enough

Infintival relatives cannot be introduced by NP.

       a car to drive to the party in. ( )

       a car in which to go to the party (PP)

       *a car which to drive to the party in (NP)

       * a man whose car to drive to the party

5. CONCLUSION

The <u>core</u> of language is generated by a system given by UG and learned (in childhood) via some principles-and-parameters device

Nevertheless, we have <u>construction-specific knowledge</u>. The constructions may be provided by core grammar. Construction-specific knowledge can be very subtle, and presumably some aspect of the language faculty permits these subtle aspects to be learned.

There are also <u>peripheral constructions</u>, and the language faculty must have a way of representing them and of acquiring them.

SPECULATION

Clustering failure and other phenomena of L2A suggests that L2 learners may be acquiring a collection of patterns (constructions) rather than (or in addition to) setting parameters and deducing consequences.

Likewise, suppose the (innate?, domain-specific?) mechanisms for acquiring the subtle semantics of individual constructions are inoperative.

Even if a core-grammar could not be produced, we still have a way of representing peripheral constructions, and we have some way of encoding construction-specific knowledge.

CONSEQUENCES

Variation in success is easily predicted.
Native-like competence is possible, though actual native competence is not.
 (The mathematics of "weak equivalence".)
Noticing, understanding, and practice effects are expected.
Input structure can have an effect (frequency, order, etc.)
Although patterns as arrangements can be acquired, subtle semantics are not
 (necessarily). Explains why pattern-practice in the audio-lingual method
 fails.

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"The adult relies on the native language to provide a general idea of what language is like and proceeds by <u>accumulating peripheral facts</u>, rather than by setting parameters and deducing consequences. The end result can be a system of knowledge which, while weakly equivalent to the native language grammar in certain areas, has a quite different origin and, presumably, a different psychological status." [emphasis added]
Bley-Vroman 1991, p. 42

Pinker, S. & Bloom, P. 1990. Natural language and natural selection. *Behavioral and Brain Sciences* 13, 707–784. (p. 732):

"To put it crudely, there is no requirement that the languages of *Homo Erectus* fall into the class of possible *Homo Sapiens* languages. Furthermore, language abilities consist of not just formal grammar but also such nonlinguistic cognitive processes as analogy, rote memory, and Haigspeak. Chomsky (1981) refers to such processes as constituting the "periphery" of grammar but a better metaphor may put them in the "interstices," where they would function as a kind of jerry-rigging that could allow formally incomplete grammars to be used in generating and comprehending sentences."