

## CHAPTER 21

# UNTUTORED SECOND LANGUAGE ACQUISITION

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### I. INTRODUCTION

Many millennia ago, some genetic changes endowed our species with the ability

- to construct highly complex linguistic systems (natural languages),
- to copy such systems, once created, from other members of the species, and
- to use them for the exchange of thoughts, wishes, feelings between members of the species.

These three capacities—the *construction capacity*, the *copying capacity*, and the *communication capacity*—are closely interconnected, and they draw largely on the same cognitive resources, such as memory, perception, and reasoning. But they are not the same. Our ancestors, when creating the first linguistic systems, had little to *copy*; they had to build linguistic systems, in a way which we can only speculate about. This process, in whichever way it was achieved, is surely neither momentaneous nor done by a single person, and therefore, it also involved a great deal of *copying* from others. Nowadays, people are rarely confronted with the need to *construct* a new linguistic system; but everybody is confronted with the need to *copy* at least one existing system. This process is what we call language acquisition. It involves the copying capacity, it involves the construction capacity, it also involves—and dramatically changes—the capacity to communicate by linguistic systems. Normally, we all experience this transition in childhood, with no or little guided intervention on the part of the social environment, but it can also happen at a later age, with or without systematic intervention. Language acquisition is a natural process; it does not need tutoring. But its study is deeply shaped by a certain view that is naturally invited by the context in which

we are first confronted with it—the classroom. This is a very natural view; but it risks missing crucial aspects of what really happens when our language capacities are at work.

## II. TWO VIEWS ON SECOND LANGUAGE ACQUISITION

At present, there are at least 6000 languages and about 200 states on earth. So, there are about 30 languages per state on average. Surely, this does not mean that every inhabitant of a state is faced with the need to learn 30 languages. But it means that the acquisition of a single linguistic system is not the normal case. The normal case, from which any investigation of language acquisition should start, is rather that human beings, equipped with certain cognitive capacities, set out to copy the ways in which others (a) pair sounds and meanings to elementary expressions and (b) build complex expressions from simpler ones; they set out to copy the *lexicon* and the *grammatical rules* of some existing system, and they do this with varying success. They develop what one might call learner varieties—that is, linguistic systems which initially are quite simple and which can already be used for communication. This process continues, and under specific conditions, it is pushed to a degree where the learners competence to speak and to understand does not saliently differ from that of their social environment. Then, we speak of perfect mastery of a language. This perfect mastery is thus a special case of mastering a learner variety; similarly, a real language is just a special case of a learner variety. Perfect mastery reflects that case in which neither the learner nor those around him notice any difference they would consider noteworthy.

This process is what has happened in the history of mankind ever since the first linguistic systems were created, and this is what happens right now all over the earth. It is a natural, species-specific process which exhibits a number of regularities, but which may also vary in many dimensions. We may sum up this way to view language acquisition as follows (Klein & Perdue, 1997, p. 307):

- A. Learners pass through a series of increasingly complex linguistic systems—learner varieties. The internal structure of each variety at a given time as well as the transition from one variety to the next are not random but characterized by certain principles.
- B. The structure of learner utterances results *from* the interaction of several organizational principles. With successive input analysis, the interaction changes. For example, picking up some component of noun morphology from the input may cause the learner to modify the weight of other factors to mark argument status. From this perspective, learning a new feature is not like adding a new piece to a puzzle which the learner has to put together. Rather, it leads to sometimes minor, sometimes substantial reorganization of the whole variety.
- C. Learner varieties are not imperfect imitations of a "real language" but linguistic systems in their own right, characterized by a particular lexical repertoire and by a particular interaction of structural and functional principles. In fact, fully developed languages, such as English, German, French, are nothing but special cases of learner varieties. They represent a relatively stable state of language acquisition—that state where the learner stops learning because there is no

perceivable difference between his variety and the variety of his social environment.

Thus, the process of language acquisition is characterized by a twofold systematicity: the inherent systematicity of a learner variety at any given time and the way in which such a variety evolves into another one. If we want to understand the very nature of acquisition, we must uncover this twofold systematicity; precisely, this is the core task of language acquisition research, be it first or second.

Additionally, we might also want to know how and why learners often miss the target, and what could be done to help them. But if we consider language acquisition as the natural achievement of certain species-specific capacities, then these are secondary questions, though of eminent practical importance. In the history of mankind, systematic intervention into this natural process—that is, second language teaching in a classroom—comes in very late. But these practical concerns have deeply influenced our view on languages and how they are learned. As a result, the dominant view on second language acquisition is rather what one might label the target deviation perspective:

- A. There is a well-defined *target* of the acquisition process—the language to be learned. As any real language is a clearly fixed entity—perfectly mastered by those who have learned it in childhood and who are thus competent to judge—and is more or less correctly described in grammars and dictionaries.
- B. Second language learners usually *miss* this target to varying degrees—they make errors in production as well as in comprehension, or they process the language in ways different from those of native speakers.

Both assumptions seem very natural. After all, it is the teacher's natural task to minimize or even erase deviations from the target. As a consequence, it seems to be the researcher's natural task to investigate which errors occur when and for which reasons, and why some of them are so robust that they can hardly be overcome after a certain age. Therefore, the learner's production and comprehension are not so much studied in their own right, as an independent manifestation of their language capacities, but in relation to a set norm, not in terms of what learners do but in terms of what they fail to do. Learners, within this perspective, desperately try to do what the native speaker does, but as a rule, they do it less well. These deficiencies must be described, and they must be explained. This is the first reason why this perspective seems so self-evident: it is the way in which the *teacher* looks at what happens.

There is a second reason. It is also the natural perspective of all of those who had to *learn* a language in the classroom—and thus of some language researchers. Here, as in so many other cases, our way to look at certain everyday phenomena is less shaped by the nature of these phenomena themselves than by the contexts which first confront us with them as objects of reflection. Children normally speak one or several languages at school age. But they hardly think about what a language is, unless they are confronted with certain linguistic rules in school settings. It is very difficult to get rid of the Perspective which the teachers' red ink burned into our mind: there is a language to be learned, it is very well defined, and you missed it!

Third, this perspective provides the researcher with a straightforward research design. There is a yardstick against which the learners' performance can be

measured: the target language, or what grammar books and dictionaries say about it. What is measured is the differences between what learners do and what the set norms demand. Therefore, the research design is essentially an elaboration of the red ink method: errors are counted and statistically analyzed. One may count, for example, how often Spanish and Dutch learners of English omit the subject pronoun in a test, and if there is a substantial difference, then this may be attributed to the influence of the first language. Alternatively, one might also look at the individual error and try to find out what led to it, that is, quantitative analysis and hypothesis testing can be replaced or complemented by more qualitative, interpretive approaches. The guiding idea is always: We analyze how well learners reproduce a certain regularity, as defined by the researcher or the teacher, and we try to explain why they are able or not able to do this.

This way to look at second language acquisition has many merits. But it hardly informs us about the principles of second language acquisition—that is, how the human language capacities construct and copy linguistic systems. At the very best, it tells us to which extent and why the results of the acquisition process deviate from certain norms. This is useful for anyone who wants to overcome these problems, or wants to help others to overcome them—that is, for students and teachers. But even for these practical purposes, it would be useful if we understood the very nature of the process that we want to optimize. To this end, we must investigate what our genetically given language capacities do when they try to do their job. In other words, we must investigate language acquisition in its natural habitat—outside the classroom, without the influence of systematic intervention.

First attempts in this direction are reflected in notions such as interlanguage (Selinker, 1972), approximate systems (Nemser, 1971), and related ones. But they still assume that the real things—the target language and the source language—are on both sides, whereas what is in-between is some imperfect hybrid. The more radical learner variety perspective sketched above goes back to early attempts to analyze the language of adult migrants who have no or very limited teaching and are thus bound to their genetically given, though perhaps no longer fully vital construction and copying capacities. An early example is Schumann's study of how a Spanish-speaking migrant acquires and uses American English (Schumann, 1978). Schumann's work is primarily interested in the sociopsychological factors which push the learner to stick to a particular, reduced system. It is less concerned with the inherent structural systematicity of this system and how it evolves over time. Precisely, these questions are in the focus of some larger projects on the language of foreign workers, which began at about the same time in Germany (Clahsen, Meisel, & Pienemann, 1983; Heidelberger Forschungsprojekt Pidgin-Deutsch, 1975; Klein & Dittmar, 1979; von Stutterheim, 1986). In section IV. we shall consider some findings from more recent endeavors that are based on these early attempts. First, however, we will examine a number of parameters, along which language acquisition with and without systematic intervention varies.

### III. TUTORED VERSUS UNTUTORED

The opposition between tutored and untutored is a bold simplification. Tuition is always an attempt to intervene into a natural process, in order to optimize it.

This intervention is highly variable in amount, type, and consequences (Doughty, 2003; Hulstijn and Ellis, 2005; Pica, this volume). Labor immigrants, for example, primarily learn by daily interaction, but this does exclude a certain amount of tuition (as is even mandatory in some countries). Classroom learning, on the other hand, can be interrupted or complemented by communicative interaction with a target language community. Some teaching methods can be more grammar oriented or more communication oriented. In what follows, we will discuss a few core dimensions, along which the learning conditions and the final outcome of tutored and untutored acquisition may vary.

### A. Learning Conditions

Outside and inside the classroom, language acquisition constructs linguistic systems, which are partly or wholly copied from some input and already can be, and often are, used for communication. It always involves all three language capacities, but their relative weight varies sharply. Three factors are of particular importance here.

#### Access to the Linguistic System

In untutored acquisition, the learner has access to the target language by everyday communication. The sounds (or graphic representations) of the language are embedded in a relevant context, and from this material, the learner derives how sound and meaning are coupled and how complex expressions are formed from simple ones. In tutored acquisition, such material is preprocessed in different ways. In the extreme case, the learner is initially offered only a metalinguistic description and some illustrative examples. The other extreme is a carefully guided imitation of actual communication, with very little explicit grammar. There are many intermediate stages between these extremes. In each case, preprocessing does not only affect the *way* but also the *order* in which the learner has access to the linguistic system to be learned. This order depends mainly on the estimated degree of difficulty and relevance of various portions of the material. It is an interesting and still unsettled question to which extent the teaching order should adopt the order in which the human language capacities would proceed without intervention: should teaching follow the natural sequence? (for discussion see Diehl, Christen, Leuenberger, Pelvat, & Studer, 2000).

#### Communicative Pressure

Unlike students in the classroom, immigrant workers rapidly find themselves in situations in which they cannot wait for the relevant structures to be acquired in the exact target language way. Instead, the copied raw material has to be used immediately for communicative purposes, and the expressive means of a rather limited repertoire have to be extended as far as possible. A silent period like the one encountered in first language acquisition might be beneficial for language learning (Krashen, 1981; Slobin, 1993), but is often no option for adult immigrant learners who have to survive in the second language speaking community. In such a situation, the communication capacity of older learners must somehow bridge the gap between what is needed and

what the copying and construction capacities are able to achieve. For the sake of early communication, untutored second language learners have to find ways to put their words together, and they have been shown to do this in a way that is partly independent of the source and target language regularities.

### **Systematic External Control**

Outside the classroom, the learner has two ways to control his or her success: (a) Do I understand, am I understood? (b) Do I have the impression that my way of speaking is exactly like that of the others? In the classroom, there is a teacher who permanently checks to which extent the learners' performance agrees with the target norms. Clearly, this gives the copying faculty a much higher weight than in untutored acquisition. As a consequence, one should expect that—everything else being equal—tutored learners are better in copying than untutored learners, and if ultimate attainment is measured in this way, then classroom learners should have an advantage here.

### **B. Outcome**

What is more successful, tutored or untutored acquisition? No one really knows, but there are two popular convictions, strongly rooted in everyday experience:

- A. If you want to learn a second language perfectly well, you must go to the country where they speak it.
- B. In contrast to children, adults cannot learn a second language perfectly well.

The first of these convictions reflects strong doubts on the efficiency of classroom teaching, when compared to untutored acquisition, but there is hardly any reliable investigation of this issue (but see Diehl et al., 2000). Much in contrast, the second conviction has been, and still is, the object of much research and heated debates, especially in connection with the Critical Period Hypothesis (see, e.g., Birdsong, 1999, 2005; Long, 2005; Pagonis, 2007; Marinova-Todd, 2003; Singleton & Ryan, 2004).

There is clear evidence that B, in its radical form, is false: there are adult second language learners whom native speakers cannot tell apart from native speakers on all sorts of tasks (see, e.g., Bongaerts, 1999; van Boxtel, 2005). Interestingly, by far most of these learners had undergone extensive teaching. But they also had a lot of practical experience and thus have probably learned a lot outside the classroom, and there is at least one study (Ioup, Boustagui, El Tigi, & Moselle, 1994) which gives evidence that untutored acquisition alone might lead to perfect mastery.

The entire discussion of age effects in acquisition is perhaps too much obsessed with the question to which extent learners produce 100% copies of how other speakers handle a given linguistic system, and thus, by potential changes in the copying faculty. But acquiring a second language, and a language in general, also means constructing a linguistic system and using it for communicative purposes. And if we want to understand the nature of human language, these aspects are perhaps much more



In what follows, we shall first discuss how learners structure their utterances at some intermediate level and then discuss how they manage to express temporality and negation.

### **A. Utterance Structure**

As one might predict, the learners' utterances and the way they evolved over time varied in many respects. But there are also many similarities, the most striking of which is the existence of a special language form called the *basic variety* (Klein & Perdue, 1997). It was developed and used by all learners, independent of SL and TL. About one-third of the learners remained at this level; small changes aside, they only extended their lexical repertoire and learned to make more fluent use of the basic variety (henceforth BV).

As for any linguistic system, the BV consists of a set of elementary units—the lexemes and rules which allow the speakers to construct more complex expressions—the (morpho)syntactic rules of composition.

#### **The Lexicon**

There is no inflection in the BV, hence no morphological marking for case, number, gender, tense, aspect, or agreement. Typically, a lexeme corresponds to the bare stem, the infinitive, or the nominative of the TL, but it can also be a form that would be an inflected form in the TL. Sometimes a word appears in more than one form. Such variation does not seem to have a function; the learners simply try out phonological variants.

The lexicon grows steadily during the acquisition process. The main source for the lexicon is the TL, but there are also many borrowings from the SL. The composition of the lexicon is remarkably constant among all learners. It essentially consists of a repertoire of noun-like and verb-like words as well as a few adjectives and adverbs. The pronoun system is extremely reduced. It includes minimal means to refer to speaker, listener, and a third person (functioning deictically and anaphorically). There are a few quantifiers and determiners (mainly demonstratives), a negator, and a few prepositions with over-generalized lexical meanings. There are no subordinating conjunctions. In other words, the repertoire consists mainly of open-class items and a few closed-class items with lexical meaning. There are no semantically empty elements, such as existential *there*.

#### **The Rules of Composition**

How do BV speakers build more complex expressions? The complete absence of inflectional morphology, one of the favorite domains of classroom acquisition, reduces the possibilities for the combination of words, in the form of noun-noun compounds (rarely) and in the form of utterances. The structure of these utterances is determined by the interaction of three types of constraints. First, there are absolute "phrasal constraints" on the form and relative order of phrases. Second, there are "semantic constraints" relating to the case-role properties of arguments. Third, there are "pragmatic" constraints relating to the organization of information in connected

text. The main phrasal constraints observed in the BV allow three basic utterance patterns with some subvariants (the NP subscripts correspond to different types of noun phrases, discussed below):

- P1a.**        **NP<sub>1</sub> - V**  
**P1b.**        **NP<sub>1</sub> - V - NP<sub>2</sub>**  
**P1c.**        **NP<sub>1</sub> - V - NP<sub>2</sub> - NP<sub>2</sub>**  
**P2.**        **NP<sub>1</sub> - COPULA -**     $\left. \begin{array}{l} \text{ADJECTIVE} \\ \text{NP}_2 \\ \text{PREPOSITIONAL PHRASE} \end{array} \right\}$   
**P3.**         $\left. \begin{array}{l} \text{V} \\ \text{COPULA} \end{array} \right\} - \text{NP}_2$

All patterns may be preceded or followed by an adverbial or by the conjunction *and*. There are also some scopal particles, in particular negators.

Note that a pattern such as NP-V-NP does not mean that the first NP is the "subject" and the second NP is the "object." In fact, it is not easy to define these notions *within* the BV, rather than in terms of their closest TL or SL counterparts. So which argument takes which position? We found that the control asymmetry between the two noun phrases, and thus a semantic feature, is crucial here. One can rank each argument of a verb by the greater or lesser degree of control that its referent exerts or intends to exert over the referents of the other argument(s). In the English sentence "Nick sliced the ham," for example, Nick ranks higher on the control hierarchy than the ham. The semantic constraint is as follows:

**SEMI.** The NP Referent with the Highest Control Comes First (Controller First)

Some verbs, notably verbs of saying and giving, take three arguments. These verbs are regularly of the "telic" type, that is, their lexical meaning involves two distinct states (see Klein, 1994, pp. 79-97). It is crucial that the control relation between the various arguments is not the same in both states. In an utterance like "Miriam gave Eva a book," there is a first state (the "source" state) in which Miriam is "in control of the book and is active in bringing about a distinct state (the target state). In the target state, Eva rather than Miriam is "in control of the book. The control status of the NP, which refers to the gift, is low in both states. The principle "controller first" thus requires that this argument does not come first. It does not prescribe, however, whether the controller of the source state or the controller of the target state comes first. "Controller first" must therefore be supplemented by an additional constraint which defines the relative weight of source and target state in determining word order.

**SEM2.** Controller of Source State Outweighs Controller of Target State

This principle applies analogously to verbs of saying if we assume that the control of information changes in both states. There is one referent in control of the information in both states, and another referent who controls the information in the target state, but not in the source state. Thus, the speaker comes first, the hearer comes second, and what is said comes last.

The two control constraints are not always operative, either because there is no asymmetry between the NP referents, or because the verb has only one argument. In these cases, the NP's position depends on how information is distributed across an utterance in context—that is, by pragmatic factors. The BV has two types of pragmatic constraints. They relate to information status—given versus new—or to the topic-focus structure. These two factors must be kept distinct, although in practice they often go together. The topic-focus structure reflects the fact that part of the utterance defines a set of alternatives (the topic) and selects the appropriate one (the focus). For example, the utterance "Eva ate an apple" can answer at least three different questions: (1) Who ate an apple? (2) What did Eva eat? (3) What did Eva do? In (1), the alternatives are the persons who could have eaten an apple (the topic) and the person specified by the NP *Eva* (the focus). In (2), the topic is the set of things that Eva could have eaten, and *the apple* specifies one of them (the focus). In (3), the set of alternatives comprises all the events involving Eva that could have occurred on that occasion, and the verb phrase specifies the one selected from this set (the focus). Full-fledged languages can mark an expression as a focus or topic expression by specific devices that include intonation, clefting, and special particles. BV mainly uses word order.

PRAG. The Focus Expression Comes Last (Focus Last)

If there is only one argument, then there is no control asymmetry, and so the controller constraints cannot apply. Hence, only PRAG and phrasal constraints interact. If the referent of the NP is topic, then one of the three patterns P1a, P1b, or P1c is used; if it is in the focus, then pattern P3 is used. The same constraint stipulates the NPs' position in copula constructions. In this way, word order can be accounted for without resorting to ill-defined notions like "subject" or "object."

The second pragmatic factor is the "given-new distinction": is what an expression refers to maintained from a preceding utterance or is it new? This distinction does not result in a simple word-order rule like PRAG, but rather in different types of NPs. These, in turn, are restricted to certain positions indicated by the numbers in the phrasal rules P1 to P3 noted above. Here, we find some variation within the BV. In particular, there are some numerals and (rarely) a definiteness marker, usually a demonstrative. We indicate this in the following diagram by optional DET. Typically, however, nouns are unadorned. This gives us the following main types:

<p>NP<sub>1</sub></p> <p>proper name (DET) (adjective) noun pronoun Zero (i.e., without phonological features)</p>	<p>NP<sub>2</sub></p> <p>proper name (DET) (adjective) noun</p>
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The choice among these forms depends on whether a referent is new or given and whether the referring expression is in topic or focus. The most general opposition is between use of noun (or name) and pronoun or zero. Zero is used exclusively to maintain reference in the context of a controller moving from topic to topic in successive utterances. Maintaining semantic role and position (controller first) is thus not in itself sufficient to license zero where there are two potential controllers in the

previous utterance (and is a further indication that "subject of is not a BV function). With names and lexical nouns, position is the sole indicator of the referent's topic-focus status. It follows from the observed distribution that reference maintenance in focus cannot be achieved by pronominal means. So there are clear constraints on how things can be expressed in the BV, and where its speakers might run into problems. These problems are a major source of structural complexities.

### Complications

In comparison to real languages, the BV has something to offer. For instance, it lacks irregular verbs and other nuisances that are so much cherished by linguists and detested by learners. But problems arise when its neat principles come into conflict.

Consider the following case from a task in which the learners had to watch and describe scenes from Chaplin's *Modern Times*. In one of these scenes, a girl is accused of stealing a loaf of bread. In the "German" version of the BV, this can be easily described by the utterance *Mädchen stehle Brot* (girl steal bread).

There are two nominal arguments. The first is the controller and the second is focused. These three rules taken together result in *Mädchen stehle Brot*. But the film's plot becomes more convoluted. The speaker now has to express that Charlie (not the girl) stole the bread. The speakers produced *Charlie stehle Brot* as well as *Brot stehle Charlie*. But in *Charlie stehle Brot*, PRAG is violated because *Charlie* is focused and so should be in final position. In *Brot stehle Charlie*, the speaker violates SEMI because *Charlie* is the controller and so should be in first position. In such cases, the BV breaks down. There are two solutions. First, the two principles could be ranked, for example, as follows.

#### Semantic Constraints Outweigh Pragmatic Constraints

Native speakers of English would probably opt for such a ranking principle and thus consider the first argument to be the controller. A sentence like *Bread steal Charlie* would seem bizarre to a native speaker of English much more than *Brot stehle Charlie* to native speakers of German, because in German the controller might easily be in final position. Hence, if there is ambiguity, they tend to follow the opposite ranking. Nevertheless, one of the constraints is violated no matter which ranking is chosen. If we adopt the English strategy, it is not clear which argument is in focus. If we adopt the German strategy, it is not clear which element is the controller (though here, it is unlikely that the bread is the controller).

The other way to solve the problem is to create an additional device that allows the speaker to mark either what is the focus or what is the controller. Two options which the construction capacity offers here are prosody and grammatical (free or bound) morphemes. Both solutions to the conflict are indeed observed (see Klein & Perdue, 1997, p. 330). Many learners use the order *Charlie stehle Brot* and mark the first argument by pitch as focus. Some learners of French use a particle [se] to mark an element in initial position as focused. This free morpheme is apparently a precursor of the cleft construction *c'est ... que*. In both cases, it is the focus constituent that gets special marking and thus allows this element to be in a different position than the one required by PRAG. Alternatively, one could mark the controller, for example, by a

special suffix; the noncontroller by a different suffix; the nonfocus by still another suffix (thus indicating something like "topic-hood"); and so on. It may be that the relevant marking only occurs when at least two arguments are present (otherwise no confusion arises), but it is also possible that the case role is marked in all occurrences regardless of whether there is a second argument with which it can be confused. At this point, it may be interesting to compare the situation of a language learner and a language inventor. Each of these possibilities just mentioned is within the range of the human language construction capacity. But a learner cannot freely choose between them and build his own—perhaps very simple and elegant—system. Eventually, he or she has to copy what the social environment does, no matter how complicated and idiosyncratic this may be. Adult learners may be somewhat reluctant to do this if they find it difficult and if they do not see the point. This may be one of the reasons why they often get stuck at a certain stage of proficiency. Children normally do not get stuck. This may be because they are better or more willing imitators of things they do not understand.

## B. The BV at Work

### The Expression of Temporality

The BV exhibits a very transparent form-function structural organization, which may get into trouble in some cases. In general, however, it is a remarkably efficient instrument for the communicative capacity. In this subsection, we shall see how it is used to encode time. All human languages have developed elaborate means to express it. The best studied of these are (grammatical) tense and aspect, which are normally encoded by the finite verb. Hence, with each normal sentence, the speaker has to refer to time, whether he wants to or not—something not everybody would consider to be desirable. The BV is much more elegant here. Essentially, its way to express temporality can be summed up in four points:

1. There is no inflection. This means that the BV lacks the usual grammatical means to express tense and aspect.
2. The lexical meaning of verbs allows a differentiation between various situation types—events, states, processes, etc. In other words, whereas the BV has neither (grammatical) aspect nor tense, it has aktionsarten or lexical aspect.
3. There is a rich repertoire of temporal adverbials, including (a) calendaric type adverbials (*Sunday, in the evening*); (b) anaphoric adverbials expressing the relation AFTER (*then, after*), and also typically an adverbial which expresses the relation BEFORE; (c) some deictic adverbials such as *yesterday, now*; (d) a few frequency adverbials, notably *always, often, two time*, etc.; (e) a few durational adverbials, normally as bare nouns, such as *two hour*, etc. Temporal adverbials involving two reference points such as *again, still, already* do not belong to the standard repertoire of the BV.
4. There are some markers for temporal boundaries; they allow the learner to express the beginning and the end of some situation, as in constructions like *work finish*, "after work is/was/will be over."

Compared to the tools for temporality in real languages, this seems to impose strong restrictions on what can be said. But at this stage, learners are often extremely good storytellers, a task that requires the expression of all sorts of temporal information. How is this possible?

The BV allows its speakers to specify temporal relations such as BEFORE, AFTER, SIMULTANEOUS, etc. In particular, it allows the specification of some time span  $t$  (in relation to some other time span  $s$ , for example, the time of utterance). It can also express duration and frequency of time spans. Suppose that some time span  $t$ , about which the speaker wants to say something, is introduced. Such a time span will be called "topic time" (abbreviated TT). The TT is simply the time about which the speaker wants to make an assertion—in contrast to the "time of the situation" (abbreviated Tsit)—that is, the time at which the event, process, or state described by the sentence happens or obtains. All that the speaker has to do is to introduce and, if there is need, to shift TT, and to relate Tsit to it. More systematically, the functioning of the BV is described by the following three principles:

- I. At the beginning of the discourse, a time span  $TT_1$  is fixed, either
  - (a) by explicit introduction on the learner's part, usually by a temporal adverbial in initial position; or
  - (b) by explicit introduction on the native speaker's part (e.g., *what happened last Monday?*); or
  - (c) by implicitly taking the "default topic time"—the time of utterance, in this case, nothing is explicitly marked.

$TT_1$ , once introduced, serves as a point of departure for all subsequent TTs.

- II. If  $TT_i$  is given, then  $TT_{i+1}$  is either maintained or changed. If it is maintained, nothing is marked. If it is changed, there are two possibilities:
  - (a) The shifted TT is explicitly marked by an adverbial in initial position;
  - (b) The new TT follows from a principle of text organization. For narratives, this is the classical principle of chronological order. "Unless marked otherwise, the order of mention corresponds to the order of events" (von Stutterheim, 1986). In other words,  $TT_{i+1}$  is some interval more or less right adjacent to  $TT_i$ .

This particular principle does not obtain in all text types. It is only characteristic of narratives and other texts with a similar temporal organization. Even in these texts, it only applies to foreground sequences. In other text types, such as descriptions or arguments, the principle of chronological order does not apply, nor does it hold for side structures in narratives, that is, those sequences which give background information, evaluations, comments, etc. For those cases, change of TT must be marked by adverbials.

Principles I and II provide the temporal scaffold of a sequence of utterances—the time spans about which something is said. The "time of situation," Tsit, is then given by a third principle:

- III. The relation of Tsit to TT in the BV is always "more or less simultaneous." TT can be contained in Tsit, or Tsit can be contained in TT, or TT and Tsit are contained in each other.

Thus, the various aspectual distinctions often observed in fully fledged languages are collapsed in the BV.

This system is very simple but extremely versatile. It allows the learner to express what happens when—provided that (a) there are enough adverbials and (b) it is cleverly managed. Therefore, one way the learner has of improving his expressive power is simply to enrich his or her vocabulary, especially by adding temporal adverbials, and to perfect his or her technique on this instrument.

When compared to English, French, or German, one might deplore the absence of the verbal categories tense and aspect in the BV—categories which, to judge from the research tradition and from grammar books, are for many almost tantamount to temporality in human languages. Now, if the core function of tense is indeed to localize the situation on the time axis, this can easily be done by temporal adverbials. In fact, they allow a much more precise localization; no known human language has a verbal inflection which differentiates between *last week* and *three weeks ago*. So, one wonders how important grammatical tense marking really is. In contrast to this, it is not so easy to express aspectual differentiations (e.g., between *he slept* and *he was sleeping*) by adverbials. But note, first, that German or Dutch have no grammatical aspect, either. Second, the human construction capacity offers simpler methods, for example, a few aspectual particles, as in Chinese. BV speakers could use this simple option, if they intend to differentiate between various ways to present a situation. In fact, they never do, since they *must copy* the particular ways in which this differentiation is encoded in the TL. Two-thirds of the 40 learners investigated indeed try this—they begin to mimic the idiosyncrasies of German, English, French regular and irregular verbs. About one-third prefer not to go beyond the BV. But they steadily improve it in two respects—more words, better practice, thus avoiding any further, and largely unnecessary, complications. Speakers of such a linguistic system can say what they want to say about temporal relations—not what the structure of the language forces them to say. But they do not sound like a speaker of German, English, or French.

### The Expression of Negation

Just as all languages have devices to express temporality, they have devices to express negation, the most important of which are particles, such as *not*, *ne ... pas*, *nicht*, etc. (see Horn, 2001; Payne, 1992). These particles are syntactically optional, but there are strong interactions between the particle and the syntactic structure, reflected in positional constraints and in a close relation to finiteness. This relation is particularly salient in the English *do*-support, in which the finite component of the verb only surfaces in the lexically empty element *do*, which in turn is combined with the negation. In the classroom, learners are told that the form *don't* consists of two words, the carrier of finiteness and the negator itself. Outside the classroom, learners have to figure this out on their own, and this leads to complicated learning problems for finiteness as well as for negation.

There is considerable work on the acquisition of negation via communication alone (e.g., Cancino, Rosansky, & Schumann, 1978; Felix, 1982; Meisel, 1997; Parodi, 2000; Stauble, 1984; Wode, 1981). Most of this work is primarily interested in how the target structures—for example, preverbal or postverbal position—are imitated. But there are

also some more recent studies that try to uncover the way in which negation is rooted in the inherent structure of learner varieties and how it evolves over time as a part of this structure (Becker, 2005; Bernini, 2000; Dimroth, 2002; Giuliano, 2003; Silberstein, 2001). In what follows, we shall first see how negation is integrated into the BV and then have a brief look on how it develops afterward.

Finiteness has strong consequences for the overall organization of sentences—in most Indo-European languages, the basic word order is crucially linked to the finite element. It also has consequences for the expression of tense and assertion (Klein, 2006). This becomes rapidly clear if the finite element in a sentence such as *John WAS here* is highlighted: this highlighting can indicate a tense contrast (*he is not here, but he was here*); it can also highlight the assertion (*He WAS here, in contrast to He was NOT here*). In other words, there is a close connection between finiteness, assertion, and negation. There is no finiteness in the BV. In the preceding sections, we have seen what this means for the basic utterance structure and for the expression of temporality. What does it mean for negation?

The Focus Last Principle of the BV (see section IV.B) divides the utterance into a focus part and a topic part. In the BV, the relation between these two components is not explicitly marked: they are simply juxtaposed, with the topic component first:

Topic component	Focus component
<i>Adverbials, first argument</i>	<i>Nonfinite verb + other argument(s)</i>

The topic component specifies what the assertion is about—a place, a time, an entity—and the focus component assigns some properties, the comment, to these topical elements.

We now must slightly differentiate the structure description from section IV.B. There, it was assumed that the two components are simply juxtaposed. This is correct in general, but whenever the way in which the predication expressed by the focus component applies to the topic needs to be qualified in some way, BV speakers can use a number of linking expressions (Dimroth, Gretsche, Jordens, Perdue, & Starren, 2003). These are lexical precursors of finiteness, which are drawn from the TL category of modal and temporal adverbs and particles (like *perhaps, again*), focus particles (like *also*), and negation. These linking expressions typically occur in a position between the topic and the focus component.

Topic component	Linking element	Focus component
<i>Adverbials, first argument</i>	<i>Modal adverbs, particles, negation</i>	<i>Nonfinite verb + other argument (s)</i>

This tripartite structure allows the speaker to modify or qualify the way in which the Predication expressed by the focus component relates to the agent and/or the Particular spatiotemporal anchor point identified in the topic component. The linking expressions have scope over the focus component. The most straightforward way of expressing (sentence-) negation at the BV therefore consists of putting the negator in the position of the linking element (Becker, 2005; Dimroth, 2008). Negative linking expressions are mainly taken from the TLs inventory of negative particles (including anaphoric ones like English *no*), but unanalyzed auxiliary clusters (e.g., *don't*) are

attested as well (Silberstein, 2001). In this position, negation directly precedes the focused constituents whereas the topic component is kept out of its scope. The majority of negated BV utterances belong to this type, but it is not the only one.

Under particular information structural conditions, learners use replacive negations of the type *not X, but Y*. In this case, the correction of the negated constituent is indicated by a rectification added behind and by intonational prominence of both, the negator and the focus (Becker, 2005). In the BV, this type of negation only shows up when the negation has narrow scope, that is, when it does not affect the whole verb complex but only some part of it. As before, the negator directly precedes the elements in its scope. Such a replacive negation is not possible with the topical (agent) argument, since a negator preceding the topic would contradict the basic linearization principle (topic linking focus), whereas moving the agent argument to the right (into the scope of negation) would contradict the BV mapping between word order and argument structure: controller first). There is, however, another possibility to negate topic elements at the BV. In order to express that a given state of affairs does not apply to a particular topic (in contrast to another one), learners can use a special intonation contour (so called bridge accent, see Buring, 1995). As a rule, these utterances consist only of the topic expression, realized with a rising accent, and the negator following it, carrying a falling accent (e.g., /jetzt nein\).

What happens beyond the BV? The crucial step here is the acquisition of finiteness marking. Parodi (2000) has argued that the acquisition of postverbal negation is directly related to the emergence of productive finite verb morphology. However, the evidence is not uncontroversial. Ideally, one would want to see that finite lexical verbs appear with postverbal negation, whereas nonfinite verbs come with preverbal negation, but the picture is not as clear. The acquisition of tense marking and subject-verb agreement in untutored adult learners is a gradual and slow process and the outcome often stays fragile and error prone for a long time. Pointing to the high degree of variation, other researchers (Meisel, 1997) therefore deny that there is a causal relationship between the target-like realization of verbal morphology and the placement of negation.

After the BV stage, we also note more and more modals and auxiliaries which combine with nonfinite lexical verbs. These modals and auxiliaries are typically finite from their first occurrence onward (Parodi, 2000). They play a crucial role for the grammaticalization of assertion marking in the developing learner varieties (Giuliano, 2003; Jordens & Dimroth, 2006; Verhagen, 2005). This is particularly clear for lexically empty auxiliary verbs whose only function is the expression of features of finiteness (assertion and tense). The acquisition of the auxiliary system entails a syntactic reorganization of the utterance structure in terms of a functional category system. It helps the learner to establish both a relation of morphological agreement between the auxiliary verb and the agent argument, and a head-complement relation between the auxiliary and the nonfinite lexical verb.

Importantly, however, auxiliaries also allow the learner to separate the encoding of finiteness on the one hand and of the lexical content of verbs on the other. This means that the negation scope can still be marked in a transparent way, since the negator precedes all elements (including the lexical verb) in its scope. These advantages seem to determine the order of acquisition of finiteness and negation in untutored adult

learners of Germanic languages in which auxiliaries seem to be a necessary intermediate step before morphosyntactic finiteness marking becomes productive with lexical verbs.

When finite lexical verbs with postverbal negation finally come to be used in TLs like French or German, the transparent separation of finite and nonfinite forms has to be given up in favor of the fusion of functional and lexical information. Unlike the BV and the first developmental steps beyond it, learner utterances then have a syntactic structure in which scope and information structure can no longer be directly mapped onto surface word order. In other words, the learners are forced to sacrifice a simple and elegant learner variety in favor of a real language with all its idiosyncrasies.

## V. CONCLUDING REMARKS

Untutored second language acquisition is not something exotic, it is the normal case, and if we want to understand the very principles according to which the human mind constructs, copies, and uses linguistic systems, then we must study how human beings cope with this task when not under the influence of teaching. This does not render the study of second language acquisition in the classroom uninteresting—quite the opposite. But if one wants to interfere with a natural process in order to optimize it, it is helpful to know the principles that govern this process.

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