

## 8 Conclusions

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### 8.1 Introduction

We return now to the three main objectives of this study, first set out in chapter 1:

- (A) How do learners express temporality at a given stage of their acquisitional process?
- (B) How do learners proceed from one stage to the next, and what developmental patterns emerge?
- (C) What are the explanatory factors which can account for the form and function of the learner system at a given time, and its gradual transformation towards the target language?

These three objectives reflect a general assumption about the nature of language acquisition - the assumption that this process is characterised by a two-fold systematicity. At each point, the learner's language is not just a random accumulation of individual forms but a **system** in its own right - a learner variety which exhibits a number of distinct organisational principles. This is the first systematicity. The acquisitional process is a sequence of learner varieties, and this sequence in turn follows certain regularities. This is the second systematicity. What these two types of systematicity are, depends on a number of causal factors: general cognitive principles, the characteristics of source and target language, individual and social learning conditions, and others.

In this concluding chapter, we will summarise and try to integrate the many findings of the preceding descriptive chapters. As is normally the case with summaries, the overall picture has to leave a number of details aside, and hence will look smoother than the total observations would suggest. We will also tacitly pass over some clear gaps in the data, mentioned in the preceding chapters, and in what it was possible to observe. Proceeding in this way is a risk. But without

taking this risk, it is unlikely that one might ever come to general conclusions with some explanatory value and, at the very end, to a theory of language acquisition which is worth the name. The reader is invited to check the general statements made in this chapter against the detailed findings in the preceding chapters and, of course, his or her own factual findings.

## 8.2 Similarities and differences

Forty immigrants with 6 different source languages in 5 countries over a period of almost 3 years - that means 40 individual life stories. It is only a very particular aspect of these life stories that has interested us in this study - the way in which these people adapt their communicative skills to the language of their social environment, with focus on a relatively narrow domain of communication: How do they learn to express temporality? How do they make clear whether the situation they are talking about is in the past or in the future, whether it is before or contained in some other situation, whether it is long or short, in progress or completed?

As one goes through the development of these learners, one notes a number of peculiar, accidental, and sometimes odd features. But there are also many commonalities, especially in the development of structural properties<sup>1</sup>. It will be helpful to start with a short list of some of these common features, which will be taken up in the following sections:

- (A) In the beginning, all utterances of a learner, irrespective of SL and TL, typically consist of (uninflected) nouns and adverbials (with or without a preposition), rarely a verb and never a copula. This means that there is hardly any explicit marking of structural relations, such as government, and **there is no way to mark temporality by grammatical means.**

It is also noteworthy that the lexical repertoires of all informants are remarkably similar in nature (cf. Broeder, Extra and van Hout 1993; Dietrich 1989).

- (B) The strategies for expressing temporality at this point are very similar - both in the way in which they use individual lexical items and in the way in which they use discourse strategies and contextual information.

For example, calendaric adverbs are used to locate a situation in time, and boundaries are marked by some lexical items such as *begin - finish* in English or *börja - sluta* in Swedish.

- (C) Among the various domains of temporality, priority is given to localisation of the event in time.

This observation is in remarkable contrast to the importance which is often assigned to the role of aspect in different languages, and also in studies of first language acquisition. It also applies to the development of grammatical categories. If TL has morphological means for both tense and aspect, as does English, clear preference is given to the former.

- (D) Among the various interacting ways to make temporal constellations clear, pragmatic devices precede lexical ones and these in turn precede grammatical ones.

In a way, this already follows from the preceding three points. But when tracing the development of our learners, one gets the impression that for many of them, the acquisition of a lexical item is only necessitated because pragmatic means do not suffice, and grammatical means are worked out - in some cases - because lexical means do not suffice. We shall return to this point.

As was said above, there are a number of differences. They are partly, and in a very obvious way, caused by the peculiarities of the target languages, and also by the different living conditions of the learners. But by far the most salient difference can be characterised by the question: "fossilisation - yes or no?". Some learners stop their acquisition at a level which is very far from the language of their social environment and may be even beneath what one would assume to be necessary for everyday communication. Others go on and come very close to the target. No one really achieves native-like competence, but some learners, such as Ayshe (TL German) or Lavinia (TL English) are not far off at the end of the observation period, and it is at least not implausible to assume that they eventually achieve it. What we note, therefore, is the following fact:

- (E) There is strong similarity in the **structure** of the acquisition process, but considerable variation in the **final success** (and also, a point not mentioned before, in its **speed**).

**In** the following four sections, we shall work out these general observations. Section 8.3 sketches the overall structure of development. In section 8.4, we will spell out some general rules for the order in which the various means to express temporality are acquired. The final section 8.5 deals in a more general way with the various factors that might influence learners' development.

### 8.3 The overall structure of the acquisition process

In general, the acquisitional process, as observed here, gives the impression of being continuous and gradual, without really sharp boundaries between the various learner varieties. But when looked at from some distance, it appears that a decisive step in the development is a learner system which has been called here "basic variety" and which, in this and similar forms, has been observed in a number of other studies (Klein 1981; von Stutterheim 1986; Schumann 1987; see chapter 1.3 for a brief discussion of this work). Accordingly, we can divide the entire acquisitional process into three major steps: stage A. pre-basic varieties, stage B. basic variety, and stage C. further development.

#### 8.3.1 Stage A: Pre-Basic Varieties

Pre-basic varieties are the learner's first attempts to make productive use of what he or she has picked up from the new language. Essentially, they can be characterised by four properties:

- (A) They are lexical: they mainly consist of bare nouns, adjectives, verbs, adverbials and a few particles (notably negation). Verbs are used "noun-like", i.e., more or less like nominalisations; there is no clear sign of grammatical organisation, such as government. There are also a number of rote forms which, for this purpose, can be considered to be individual lexical items.<sup>2</sup>
- (B) There is no functional inflexion. This does not exclude inflected forms, for example present tense verb forms, from being used; but either there is only one such form, or if there are several, they are in free variation.
- (C) Complex constructions, if they appear at all (except rote forms, of course), are put together according to pragmatic principles, such as "Focus last" (cf. Klein and Perdue 1992). This also applies to text organisation: if there is any coherent sequence of utterances, there are no explicit linking devices such as anaphoric elements; what is obeyed, however, is PNO - the "principle of natural order".
- (D) They are heavily context-dependent, but with the exception of deictic pronouns, which appear before anaphoric pronouns, there is no structural context-dependency. Context operates in a very global fashion.

For the expression of temporality, this means that all there is are some adverbials, or rather adverb-like expressions, notably "calendric noun phrases" such

as *Sunday, morning, nineteenthundred and seventy*, etc, - and, of course, PNO. Basically, the localisation of the situation is left to the interlocutor.

We do not note, incidentally, that the learners' language at this point is a kind of "re-lexification", in the sense that utterances consist of a word-by-word replacement of source language constructions. There is on the contrary hardly any source language influence. This language is "constructive", poor as the constructions may be.

Among our 40 learners, only a few (such as Angelina or Fatima) were observed at this stage, because the encounters started at a point where most of them had already reached the subsequent stage.<sup>3</sup>

### 8.3.2 Stage B: The Basic Variety

#### *The form of the Basic Variety*

At some point in their development, all learners analysed in this study (except those, such as the Turks with TL German, who received systematic initial teaching) achieved a variety with the following four properties:

- (A) Utterances typically consist of uninflected verbs, their arguments and, optionally, adverbials. There is no case marking, and, with the exception of rote forms, there are no finite constructions. In contrast to the pre-basic varieties, the way in which the words are put together follows a number of clear organisational principles which are neither those of SL nor those of TL.<sup>4</sup>
- (B) Lexical verbs appear in a base form, and there is normally no copula.<sup>5</sup> The form chosen as a base form may differ. Thus, most learners of English use the bare stem ( $V_0$ ), but also *Ving* is not uncommon. Learners of other languages may use the infinitive (German, French) or an even a generalised inflected form (as often in Swedish). The Turkish learners of Dutch use the infinitive, the Moroccan learners of Dutch the bare stem.
- (C) There is a steadily increasing repertoire of temporal adverbials. Minimally, it includes:
  - (a) TAP of the calendaric type (*Sunday, (in the) evening*);
  - (b) anaphoric adverbials which allow learners to express 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 TAQ, notably *always, often, one time, two time, etc*;
- (e) a few TAD, normally as bare nouns, such as *two hour, four day, etc*.

Adverbials such as *again, still, yet, already* ("TAC") do not belong to the standard repertoire of the basic variety;

- (D) There are some **boundary markers**, i.e., words (normally verb forms), which allow learners to mark the beginning and the end of some situation, such as *start, finish*. They are used in constructions like *work finish*, "after working is/was/will be over".

These are the common features of the basic variety. There is some individual variation; for example, we occasionally find a subordinate conjunction, typically *when*, which helps to express temporality. But all in all, the picture is quite uniform, and basic varieties only differ with respect to the richness of the lexicon.

For simplicity's sake, all examples so far have been taken from English basic varieties. It may be instructive to quote two examples for each language pair:

Punjabi-English:

*Punjab I do agriculture farm*  
*After I go Jordan*

Italian-English:

*I get up eight o'clock*  
*take coffee*  
*nine o'clock work*

Italian-German:

*Abend ich meine freund essen restaurant*  
 'Evening I my friend have dinner restaurant'  
 \*poi\* *tanzen*  
 'poi <=then> dance'

Turkish-German:

This is the only constellation for which we have no examples in our data. The following two utterances are taken from von Stutterheim (1986:168-9)<sup>6</sup>:

*stuhl sitzen*  
 'chair sit'  
*wann du krank + andere arbeit*  
 'when you ill + other work'

## Turkish-Dutch:

*en dan ik werken daar*  
 'and then I work there'  
*en dan ik pomp halen*  
 'and then I pump get'

## Moroccan-Dutch

*twalf uur ik huil*  
 'twelve o'clock I cry'  
*nee + alles hier doen tot baby kom*  
 'no + everything here do till baby come'

## Moroccan-French

*apres aller le voiture la commissariat*  
 'after go the car the police station'  
*pourquoi entrer la france la montagne*  
 'why enter the France <via> the mountain'

## Spanish-French

*[3e] un accident dans la mer (...)*  
 'I have/had an accident in the sea'  
*\*y jo \* [3e] peur*  
 '\*and I\* I am/was scared'

## Spanish-Swedish

*hon vänta vis/*  
 'she wait visa'  
*ja lite lite prata svenska*  
 'I little little talk Swedish'

## Finnish-Swedish

*a han ta den korv*  
 'And he take the sausage'  
*a han göra senap*  
 'and he do mustard'

*The functioning of the basic variety*

The examples quoted above look very "basic", indeed, and they do not give the impression that the basic variety, as characterised above, provides its speakers with powerful means to express temporality. It does not allow for tense marking nor for aspect marking, hence the linguist's pet categories for the expression of

time are entirely absent. Compared to the rich expressive tools for temporality in any of the languages involved, be it source language or target language, this seems to impose strong restrictions on what can be expressed.

This impression is premature. What the basic variety allows is the specification of some time span - a RELATUM -, its position on the time line, its duration and (if iterated) its frequency. The event, process or state to be situated in time is then simply linked to this RELATUM. All the speaker has to do then is to shift the RELATUM, if there is need. More systematically, we can describe the functioning of the basic variety by the following three principles.

- (I) At the beginning of the discourse, a time span - the initial Topic time  $TT_1$  - is fixed. This can be done in three ways:
  - (a) by explicit introduction on the informant's part (e.g. *when Italia* "when I was in Italy"). This is usually done by a TAP in utterance initial position;
  - (b) by explicit introduction on the interviewer's part (e.g. what happened last Sunday? or what will you do next Sunday?);
  - (c) by implicitly taking the "default topic time" - the time of utterance; in this case, nothing is explicitly marked.
  
- (II)  $TT_1$  is not only the topic time of the first utterance. It also serves as a RELATUM to all subsequent topic times. If  $TT_i$  is given, then  $TT_{i+1}$  - the topic time of the subsequent utterance - is either maintained, or changed. If it is maintained, nothing is marked. If it is different, there are two possibilities:
  - (a) the shifted topic time is explicitly marked by an adverbial in initial position.
  - (b) the new topic time follows from a principle of text organisation. For narratives, this principle is the familiar PNO: in other words,  $TT_{i+1}$  is some interval more or less right-adjacent to  $TT_i$ .

As was discussed in chapter 2, this principle does not govern all text types. It is only characteristic of narratives and texts with a similar overall temporal organisation - texts which answer a *quaestio* like "What happened next?" or "What do you plan to do next?". It only applies to "foreground sequences" or, as was said in chapter 2, to the main structure of the text. In other text types, such as descriptions or arguments, PNO does not apply, nor does it hold for side structures in narratives, i.e. those sequences which give background information, comments etc. For those cases, changes of TT must be marked by adverbials.



Principles I and II provide the temporal scaffolding of a sequence of utterances - the time spans about which something is said. The "time of situation" of some utterance is then given by a third principle:

(III) The relation of TSit to TT in the basic variety is always AT, i.e., "more or less simultaneous". TT can be contained in TSit, or TSit can be contained in TT, or TT and TSit mutually contain each other, i.e., they are really simultaneous. In other words, the basic variety allows no aspectual differentiation by formal means.

This system is very simple, but extremely versatile. In principle, it allows an easy expression of when what happens, or is the case, provided that there are enough adverbials, and that it is cleverly managed.

Therefore, one way to improve the learner's expressive power is simply to enrich his vocabulary, especially (but not only) by adding temporal adverbials, and to perfect his handling of the system. Exactly this is done by one group of learners, who never really go beyond the basic variety, but steadily improve it in these two respects. In the present study, Santo, Angelina, Mahmut, Zahra, Rauni stand for this group.<sup>7</sup>

But there is a second group of learners who indeed leave this poorly but adequately furnished refuge, and start the long march towards the target language. This further development is much less homogeneous, and in a way, it is somewhat misleading to speak of a "third stage"; it is rather a group of stages which, however, also show some commonalities.

### 8.3.3 *Stage C: Development beyond the Basic variety*

The basic variety is relatively neutral with respect to the specificities of the target language. Apart from the choice of the particular lexical items, its structure and function is more or less the same for all learners, irrespective of SL and TL. It seems plausible that the basic variety reflects more or less **universal** properties of language. This changes, and has to change, as development goes on: the learner has to adopt the peculiarities of the language to be learned. As a consequence, it becomes more difficult to identify **general** properties of this development. But this does not mean that further development of the individual learners is entirely idiosyncratic. Four common features were observed in the development of the advanced learners:

- (A) Initially, there is co-existence of various morphological forms without appropriate functions. The learner would use, for example,  $V_0$  and *Ving*, or various present tense forms, or even complex periphrastic constructions, without a clear and recognisable functional contrast - be it the one of TL or some learner-variety internal contrast. In a phrase: **Form precedes function**, or more precisely: formal variation precedes functional use.

What this seems to hint at is the fact that in development at this stage, language acquisition is not dominantly driven by functional needs but by some other factor. We shall return to this point shortly.

- (B) Further development is slow, gradual and continuous. There are no distinct and sharp developmental steps. This applies, on the one hand, to vocabulary increase, in particular to an increase of temporal adverbials, which strengthens the learners' communicative power. It also characterises the way in which full control of the appropriate functional use of forms is achieved. For a long time, a co-existence of correct and incorrect usage is observed, and learning is a slow shift from the latter to the former, rather than the product of a sudden insight. In this respect, **language acquisition resembles the slow mastering of a skill, such as piano playing, much more than an increase of knowledge, such as the learning of a mathematical formula.**

This may seem a trivial observation, but it is in remarkable contrast to predominant views of the process of language acquisition. Learning a language is not necessary tantamount to an increase of knowledge.

- (C) **Tense marking precedes aspect marking.** All TLs of this study have grammatical tense marking, only some of them have grammatical aspect marking, but all can mark aspect by various types of periphrastic constructions. In all cases, tense comes first. It is true that learners of English may have perfect forms and, especially, progressive forms at an early stage, but in no case do we observe an early functional use of these forms.

This observation is in strong contrast to what has often been assumed (and disputed) for pidgins and pidginised language varieties (Bickerton 1982) and for first language acquisition (Weist 1986). The learners of the present study do not feel any particular urge to mark aspectual differentiation.

In relation to the SLA work described in the introduction (1.3), our results clearly contradict the "grammatical aspect before tense" hypothesis, and corroborate Meisel's statement (also cited by Andersen and Shirai 1994), that 'Learners

do not systematically use an aspectual system' (1987:220). Only the Moroccan learners of French develop an opposition that is indeterminate between a temporal and an aspectual system, and their system is highly idiosyncratic. In relation to Andersen's "aspect hypothesis", our results are inconclusive. This hypothesis represents one of the many ways of mimicking the input that have been evidenced across language pairs and over time; see 6.2.4 and 7.2.3, for example, how Moroccan learners of French, and Hispanic learners of Swedish make transitory use of the aspect hypothesis. The problem here is that the aspect hypothesis only concerns TL-like verbal morphology ("form to function"), which hides both the learners' truly idiosyncratic markings of related oppositions (Abdelmalek) and related marking of different oppositions (Berta marks mood distinctions). Furthermore, the aspect hypothesis has to be weighted against competing strategies for mimicking the input, such as frequency (see also Meisel 1987), or the perception of irregular verbal morphology (see also Sato 1990), whatever the verb class. We return to this latter phenomenon immediately.

Everybody, however, is in agreement that morpho-syntactic agreement is a marginal acquisitional phenomenon. In this sample, it only plays a role for the Turkish learners of German, and its use is late and unsystematic, or non-existent, elsewhere. It is perhaps significant that the Turkish learners received formal, written tuition to a much greater extent than the other learners (see Sato 1990:123 for a similar observation).

- (D) **Irregular morphology precedes regular morphology.** In all languages involved, past tense formation is very simple for the regular forms, and irregular past is often a nightmare. Still, the learners of our study tend to overlook the simple rules of the former and to start with the complexities of the latter, whatever the semantic category of the verb.

This points to the fact that the acquisitional processes observed here are not so very much characterised by "rule learning", such as "add *-ed* to the stem" but by picking up individual items of the input and then slowly, slowly generalising over these items. Irregular verbs are typically frequent and the morphological differences are perceptually salient, compared to a regular ending such as *-ed*, which may be hard to process for many learners. **Second language acquisition, as observed here, is inductive and heavily input oriented.**

Obviously, these four properties of acquisition beyond the basic variety simplify the real picture. Reality, as evidenced in the preceding chapters, shows a number of peculiarities in the learners' individual development. But still, the overall picture is very clear.

### 8.3.4 Causal considerations

In this section, we will briefly discuss why it may be that some learners fossilise at the level of the basic variety, whereas others go beyond that stage.

The advantages of the basic variety are obvious: it is easy, flexible, and serves its purpose in many contexts. And these advantages may be sufficient for many learners to maintain it, with some lexical improvements. But not all do. Two reasons might push further development.

First, the basic variety strongly deviates from the language of the social environment. It may be simple and communicatively efficient, but it stigmatises the learner as an outsider. For first language learners, the need for such **input imitation** is very strong; otherwise, they would not be recognised and accepted as members of their society. For second language learners, this need is not necessarily so strong, although this surely depends a lot on the particular case. Second, the basic variety has some clear shortcomings that affect **communicative efficiency**. Four of these come to mind:

- (a) The absence of TAC adverbials, such as *again, yet* limits the expressive power of the system. This, of course, can be overcome simply by learning these words, without changing the system as such (much in the same way in which new nouns are learned).<sup>8</sup>
- (b) The basic variety does not allow its speakers to mark at least some types of aspectual variation. There is no way, for example, to differentiate between *he was going* and *he went*, i.e. between "TT included in TSit", and "TSit included in TT". It is possible, though, to differentiate between "TSit AT TT" and "TSit BEFORE TT", because the basic variety normally has boundary markers.
- (c) The pragmatic constraints on the positioning of TT easily lead to ambiguities. Suppose there are two subsequent utterances without any temporal adverbial, and suppose further that  $TT_1$  - the topic time of the first utterance - is fixed. Where is  $TT_2$ ? If the two utterances are part of a static description, then  $TT_2$  is (more or less) simultaneous to  $TT_1$  - there is normally no temporal shift in, say, a picture description. If the two utterances belong to a narrative, then it depends whether both utterances belong to the main structure or not; if so, then  $TT_2$  is AFTER  $TT_1$ ; if not,  $TT_2$  is simply not fixed. So long as the speaker is not able to mark the difference between main and side structure, for example by word order, misinterpretations are easily possible, and are indeed often observed in learner utterances, to the extent that the entire temporal structure of the text becomes incomprehensible.

- (d) There is no easy way to discriminate between "single case reading" of some situation (event or state) and "habitual" or "generic reading". An utterance such as *when Italy, I go Roma* can mean "when I was in Italy, I once went to Rome", but also "when I was in Italy, I used to go to Rome". In both cases, TT is in the past; but it may include one or many TSits. Learners may feel the need to discriminate between semelfactive and habitual reading, and do so by an initial adverbial *normal(ly)*, which, when interpreted literally, often sounds somewhat odd (*normal, go disco*).

All of these problems affect the efficiency of the basic variety, and may easily lead to misunderstanding and even breakdown of communication (cf. Bremer *et al.* 1993). If the learner considers it important to increase his communicative capacity, he has to improve the system. This can be done in two (not mutually exclusive) ways. He can either try to adopt as many rules of the target variety as possible. Or he can try to turn his basic variety into a sort of "fluent pidgin" and learn how to make optimal use of it. The latter way leads to a more or less fossilised but relatively efficient version of the basic variety, the former towards the norms of the language of the social environment. Note that only the problems mentioned under (a) and (b) above are easily overcome by progressing towards Standard English. The problems mentioned under (c) are not directly affected by such progress, because the pragmatic constraints are the same in the basic variety and in the fully developed language, and nor are they for (d), as English does not formally discriminate between "habitual" and "semelfactive", either.

Our observations about development **beyond** the basic variety, as summed up in section 8.3.3, clearly indicate that the first factor, the subjective need to sound and to be like the social environment, outweighs the other factor, the concrete communicative needs: Learners try to imitate the input, irrespective of what the forms they use really mean, and it is only a slow and gradual adaptation process which eventually leads them to express by these words and constructions what they mean to express in the target language.

#### 8.4 Temporal expressions: what after what?

In the preceding section, we gave an overall picture of the developmental process and considered some of the causal factors which may determine its course. This picture includes the expression of temporality over time but it is not specific to it. In this section, we shall deepen the picture by a more specific look at the sequencing of temporal expressions.

Many factors interact in the expression of time. As we said in chapter 2, these include, among others:

- (a) the **type of content** which the speaker might want to express. Temporality is not a homogeneous conceptual category; it involves various kinds of temporal relations, inherent temporal features, etc;
- (b) the **type of expression**. There are various grammatical and morphological means, and a temporal relation such as BEFORE might be expressed by either one or the other, or by an interaction of both;
- (c) the **role of contextual factors**. Only part of what is meant is made explicit, others parts are left to the context; this is not only illustrated by deictic expressions such as tense or adverbials like *yesterday* but also by global principles such as PNO.

One might imagine, in the acquisition of temporality, a sequence which is entirely determined by one of these components, for example the kind of temporal relation to be expressed, or the morphological complexity of the expression. This is not what was observed. Many factors play a role, and it is their interaction which leads to the sequences observed. We cannot claim that the nature of this interaction is entirely clear, but there are a limited number of distinct tendencies which we can state by the following six rules.

### R1. From implicit to explicit

Initially, many components of the content which the listener should know are left to context and to inferences, rather than being made explicit by words and constructions. There is much scaffolding by the interlocutor and much reliance on "default assumptions", i.e. assumptions on what is normally the case and would be expected in a given situation. This rule may be almost trivial in the very beginning, because the learner simply has no means to make contents explicit. But as soon as the basic variety is reached, there is little left that could not be made explicit. If, for example, a personal narrative is told, there is no reason to state time and again that the events talked about are in the past. But exactly this is done by the learner if he learns and correctly uses tense marking. Similarly, there is often no reason at all to mark the relation AFTER by explicit means such as *then*, *dann*, *toen*, *après* if PNO does as well. Still, the tendency is clearly to do it - to go from implicit to explicit.

### R2. From lexical to grammatical

If some meaning component is not left implicit, it can be expressed in various ways. Take a relation such as "Time A BEFORE Time B" which can be marked by

either a tense morpheme or by adverbials such as *before* or, more specifically, *yesterday*. Here, lexical means clearly come first. The basic variety gets along with these means (and reliance on context), and only afterwards, grammatical means are slowly developed - with minimal gain in expressive power and substantial cost in complexity.

### **R3. From simple to complex**

What is meant here by simplicity is simplicity of expression. Elements of the pre-basic variety are usually short words. Prepositional phrases of the TL are truncated to noun phrases which in turn tend to have the form of bare nouns. Bare verb stems are used. As grammatical categories are acquired, forms that are clearly compound, such as the regular past in English, are avoided in favour of morphologically simple forms, such as (normally) the irregular forms.

Again, one might argue that R3 is all too obvious, because in the beginning, learners are simply unable to process expressions of higher morphological complexity. This is contradicted by the single salient exception to this rule: rote forms, which may have a remarkable complexity right from the beginning. It is likely that their composition is not transparent to the learner. But still, he is able to understand and to use them.

### **R4. From topological relations to order relations**

This is the first rule which has to do with the particular meaning to be expressed. As was said in chapter 2, temporal relations may be of the type "THEME BEFORE RELATUM" and "THEME AFTER RELATUM", but they may also be of the type "THEME IN RELATUM", "THEME CON RELATUM", etc. In acquisition, the latter tend to be marked first. This applies to adverbials as well as to the development of tense forms. It should be stressed that R4 is indeed only a tendency which allows for many exceptions. Still, there is this tendency whatever the reason.

### **R5. From AFTER to BEFORE**

Among the order relations, those which place the THEME after the RELATUM - such as *then*, *later*, *after* - tend to be marked before those which express the relation BEFORE, such as *before*, *(x days) ago*, etc. Again, this is only a tendency, and it may seem contradicted by the order in which tense marking is acquired: past tenses come clearly before future tenses. But this may simply reflect the fact that, on the one hand, the informants talk more about the past than the future, and on the other, that future marking is less common in the target languages, anyway.

### **R6. From deictic relatum to anaphoric relatum**

If a temporal relation is marked, then the RELATUM can either be independently specified, or given in context. In the latter case, we have to distinguish between deictic (*now, yesterday*) RELATA and anaphoric RELATA (*later, before*). Again, as a tendency, the former are used before the latter. There is a remarkable parallelism of this rule to the order in which personal pronouns are acquired: here, deictic pronouns, such as *I, you* typically appear before anaphoric pronouns (*he, she, they*).

We have repeatedly said that these six rules are not rigid principles but tendencies. In particular, they may contradict each other, for example if a morphologically complex deictic expression and a morphologically simple anaphoric expression compete. These conflicts are solved in different ways, and we are not in position to make general claims about this interaction. But it seems beyond doubt that R1-R6 indeed reflect strong "acting forces" in the acquisition of temporality.

## **8.5 Final causal considerations**

As was said in chapter 1, the present study is part of a larger project whose aims and methods are described in Perdue (1993a,b). There, it was said that the entire process of second language acquisition can be characterised by three dependent and three independent variables. The former are structure, speed and final result of the process, the latter are access to the target language (notably type and amount of input), learning capacity (including previous knowledge of the learner) and motivation. How can we describe our findings on temporality in the light of these six variables?

What has been said in this chapter about the dependent variables basically concerns the structure of the process and its final result, which is either an elaborate basic variety or a variety which, for temporality, comes close to the target language. Less was said about the speed of the process; here, the available evidence hardly allows any generalisation, except perhaps that the tempo of acquisition looks generally very slow, compared to first language acquisition for example.

Causal considerations concentrated on different types of motivation - communicative needs versus social similarity, and it was concluded that it is the second factor which pushes learners beyond the basic variety. Little has been said, and can be said, about the input, except that intensity of interaction favours the



learning process. This is perhaps not too surprising. But there is a less trivial correlate of this fact: **duration of stay is an uninteresting variable**. What matters is the intensity, not the length of interaction. Therefore, ordering learners according to their duration of stay is normally pointless because too crude a measure for what really matters: intensity of interaction.

This leaves us with a third causal factor, or actually group of factors - the learning capacities which the informant brings to the new linguistic environment. Roughly speaking, these learning capacities have two components (cf. Klein 1986): the biologically given (and constrained) "language processor" which allows him to analyse new input and to transform the result into active competence, on the one hand, and the "available knowledge", in particular the knowledge of the source language. What can be said about these two components?

All learners studied here were adult at the time of arrival. Does this fact affect their "language processor", as is assumed by some theories of language acquisition. The answer is "yes and no". The evidence gathered in this study clearly shows that:

- (a) the acquisition process is in general very slow;
- (b) it regularly leads to the formation of a communicative system, the basic variety, which is not observed for first language acquisition;
- (c) it often fossilises at this level.

This is distinctly different from the learning process of children. On the other hand, many learners approach the target variety to a degree where it is at least very similar to a native speaker's competence. **We have no evidence that an adult second language learner is in principle unable to achieve full mastery of the target language** - as far as the expression of temporality is concerned. This does not exclude, of course, that such changes of the "language processor" might exist for other domains of language, such as phonology or intonation. In other words: as far as the acquisition of temporality is concerned, second language acquisition is definitely not like first language acquisition, but there is no evidence that this is due to a biological, age-related change in the language-learning capacity.

The other component of the learning capacity is the learner's knowledge of his own language. Here again, our observations are not entirely clear-cut. We do note, on the one hand, some transfer phenomena:

- learners occasionally use SL words; but these lexical borrowings mostly concern nouns and verbs, hardly ever words which would express temporality. There are some exceptions, such as Italian *poi*; but they are rare;

- the choice of the base form in the basic variety occasionally varies with SL; the clearest case are the Turkish and Moroccan learners of Dutch, where the former prefer an infinitive and the latter the bare stem; it is not implausible that this preference reflects the rich Turkish suffix morphology compared to the typical stem changes in Arabic; we note similar differences for Italian and Punjabi learners of English.

There are some other phenomena of this type; but all in all, they are remarkably rare. What is much more striking, is the lack of SL influence where one would expect it. Some of the source languages have a distinct aspect marking, others do not. But we have no evidence in our data that this difference plays a systematic role. We must conclude, therefore, that there is no significant SL influence in the acquisition of temporality. We cannot exclude that clear transfer exists, of course; but if so, we have not observed it in the learner varieties studied in this project.

## Notes

This statement allows us to return to a question we left open in the introduction (1.5) concerning comparative quantification. Broeder, Extra and van Hout (1993) attempted to measure the acquisitional tendencies we have noted in the previous chapters. We summarise their approach here, and refer the interested reader to their chapter for full details.

Broeder, Extra and van Hout asked what tendencies would be *generally* true of the two dozen learners of this study despite difference in initial competence, and in the speed and success of individual acquisition. They noted, as we have done systematically in the case studies, that progress is largely characterised by an increase in *vocabulary*. Furthermore, in the overall acquisition sequence we have noted (and which Klein and Perdue 1992 also have noted) going from NUO via IUO (the basic variety) to FOU, the role of the verb is crucial for two reasons. Firstly, IUO depends on the structuring power of the verb, absent from NUO, in IUO, utterances have verbs. Secondly, the grammaticalisation which characterises progress from IUO to FOU for the TLs studied crucially concerns tense/aspect, and also case (pronouns, and in principle, although not in practice, the German article system), and subordination relations.

Working with virtually the same data set (same informants, Modern Times retelling and contemporary conversation), these researchers sorted all the word forms into lemmas. Two measures (Guiraud and theoretical vocabulary) reliably reflected the richness of the informants' (lemmatised) vocabulary, and both measures showed, as can be expected, an increase in vocabulary richness from cycle 1 to cycle 2 to cycle 3. They then measured possible developmental patterns of word classes, by computing correlations between the two vocabulary measures and the number of lemmas in each word class. The most significant effect was found for verbs (.55\*\* for theoretical vocabulary, .64\*\* for Guiraud), and a positive although less significant effect for subordinators. The authors comment

that:

A relative increase in verb lemmas...is correlated to an increase in lexical richness. This result supports the idea that verbs have a crucial role in the overall development of the lexicon... (1993:157-158).

The word type/lemma ratio (number of different word types in a single lemma) for different grammatical classes over time was also computed. These "differentiation scores" were then correlated with the two measures of lexical richness in order to establish where progress in lexical richness correlated with progress in morphology. Again, the category V correlated most highly.

These global descriptive measures are in accordance with the detailed findings of this study, which we will now proceed to summarise.

2. These characteristics led Klein and Perdue 1992, to identify a "nominal utterance organisation" in these varieties.
3. This, to be clear, is something we cannot prove: It might well have been the case that the other learners started in a very different way; but it seems highly unlikely.
4. Klein and Perdue 1992, identify an "infinite utterance organisation" in these varieties.
5. There is often a copula in quoted speech, though. If anything, this shows that learners at this point have a clear idea that there could be, or should be, a copula - they just do not integrate it into their own productive language. Basic varieties are not bad imitations of the target - they are languages with their own inner systematicity.
6. We cannot be sure, of course, that the basic variety of our Turkish learners would have been exactly as the fossilised learner variety recorded and analysed by von Stutterheim. But given the many similarities between her findings and the present description of the basic varieties, such an assumption seems not unjustified.
7. The fossilised learners described in Klein (1981) or in von Stutterheim (1986) are of exactly this type. They have become, so to speak, masters in playing the one-string guitar.
8. This is not the case, of course, for the Turkish learners of German. They were explicitly taught how to construct the weak German perfect, and they have internalised this rule. To that extent, their acquisition process is indeed a different one.
9. However, understanding the concept behind these words may not be so simple.

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