PART I

The process of language acquisition

This part comprises three chapters. The first offers a panoramic view of language acquisition research. Various types of language acquisition are considered, some fundamental facts are stated, a number of issues which have been the focus of discussion in recent years are reviewed, and several important theories are outlined. This overview is not meant to be complete; rather, it should give the reader an idea of what researchers in second language acquisition were mainly concerned with during the past decade. It also includes a brief look at other forms of language acquisition. Although this book is essentially devoted to second language acquisition, the subject matter itself as well as the way in which the research field has developed over the last fifteen years make it imperative to consider the problems in a broader framework.

It is not easy to convey a picture of the state of the art in second language research, given the heterogeneity of issues, research methods, interpretations, and, last but not least, of terminology. An attempt is made in the second chapter to impose a uniform – psycholinguistic – perspective on this complex field. From this perspective second language acquisition appears to be a process which

- exhibits certain regularities,
- is constrained by a number of factors determining its course, rate of progress, and final outcome,
- is subject, within certain limits, to external influences such as (methods of) instruction.

The focus throughout is the learner, who is seen as being obliged by social circumstances to apply his language learning capacity to the available linguistic material. Much, but not all, of what is treated globally in the second chapter of Part I will be elaborated on in some detail – to the extent that current research permits – in Part II (chapters 4 to 8). In many areas of second language research there is still very little evidence
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to rely on. There are good reasons however to start off with a cohesive overall picture, even if it proves impossible to fill in all the details.

The third chapter of Part I briefly explores the possibilities of methodically influencing the process of language acquisition; thus, we examine the points at which systematic intervention into the acquisition process becomes effective, and the limits of such instruction. This is not a book about teaching, and little is said about how to streamline instruction in the concrete case. (See, for an excellent treatment of this matter, Els et al., 1984.) But it seems important to put instruction into perspective right from the beginning. As chapter 3 demonstrates, we cannot build up instructional methods from a scientific foundation so long as we remain ignorant of the regularities that govern the process of acquisition.
I

Some forms of language acquisition, some fundamental facts, some focal issues, some well-known theories

Every normal child acquires a language, his first language (or ‘native tongue’), in the first few years of life. There are exceptions, on either physiological (e.g. deafness) or social grounds (e.g. ‘wolf children’); but usually a child can communicate freely by the time he goes to school. Beyond puberty, our command of language shows little progress, though in some areas – the vocabulary, for instance – learning continues throughout our life span. First language acquisition is thus primary in at least two ways: in terms of sequence (‘first’) and in terms of (mostly life-long) importance.

Most people learn more than one language, however. There are various ways in which this may happen, and the transitions between them are gradual. A child may be exposed to two (or even more) languages right from the beginning, for example if his parents use different languages. In this case, we may still speak of ‘first language acquisition’ – except that not one but two languages are ‘first’. In other words, a language is ‘first’ – and so is its acquisition – if no other language was acquired before; otherwise, it is second. The distinction is neat if acquisition of the second language begins when acquisition of the first is over, as is typically the case after puberty. But since the acquisition process extends over a long period of time, there are all sorts of intermediate cases.

It may also be that a language acquired once has to be acquired a second time – because it has been forgotten or is inaccessible due to aphasia. Thus we have three basic kinds of language acquisition: first language acquisition (FLA), second language acquisition (SLA), re-acquisition (RA). This is a first distinction which helps us to classify the phenomena. But in reality it is somewhat hazy, and, in addition, we must be prepared to consider further differentiation.

At this point we come to the distinction between first and second language acquisition. If a second language is learned before the acquisition of the first is completed, the distinction becomes blurred. And a further complicating factor arises when a language is re-learned after a lapse of...
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years or is gradually recovered. The first and foremost question in language acquisition research is the extent to which all three types are governed by universal laws of language learning.  

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First language acquisition occurs when the learner – usually a child – has been without a language so far and now acquires one. If it is one language, we speak of monolingual FLA. The less frequent case – in Western European societies at least – of a child learning two languages in parallel is known as bilingual FLA.

Monolingual first language acquisition is by far the most thoroughly investigated form of language learning. This is not the place to enlarge upon the issue. However, there are a number of points which are also important for second language acquisition; we now turn to some of these.

1.1.1 Cognitive, social, and linguistic development

First language acquisition is intimately bound up with the child's cognitive and social development. To use the antique terms: the 'wordless' infans develops into the zoon logon echon and a zoon politikon: the child becomes a 'carrier of both word and concept' and a 'social creature'. This makes for a number of essential differences between first and second language acquisition, which will be illustrated by a series of examples.

A. Cognitive development

In languages like English, French, or German, practically every sentence carries some tense marking effected by a finite verb. Correct tense marking presupposes that the learner has acquired temporal concepts such as present, past, future, and the like. This in itself is an intricate and laborious process; many children tend to confuse 'yesterday' and 'tomorrow' right into their early school years. Even if four-year-olds are found to form grammatically correct sentences, we cannot be certain – short of misunderstandings and communicative failures – that their use of the past tense is that of the adult language. Two important conclusions can be drawn from this. First, the production of grammatically well-formed utterances does not imply that the speaker has mastered the language; he may endow these utterances with quite a different meaning. Secondly, a speaker must have acquired the cognitive categories which underlie the various expressive means of natural languages – categories such as time, space, modality, causality, etc. Whereas this condition is
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usually met in second language acquisition, it is not necessarily so in first language acquisition.\(^7\)

Now consider another, less obvious but particularly instructive example. An essential feature of any natural language is its context-dependency: a clear illustration is offered by the existence of deictic terms. Whereas terms such as Napoleon, in Brighton, and before the First World War carry a relatively stable meaning, deictic terms such as I, here, and now may refer to totally different things or circumstances, depending on who is speaking, where the speaker is, when the speaking is taking place, etc. The implementation of deixis varies from language to language. For example, place is indicated in English by two terms, here–there, and in German by three, hier–da–dort. What is identical however is the underlying principle of change of reference in relation to speaker, place, time, and several other phenomena.\(^8\)

It is not an easy task for the child to master this principle of ‘deictic shift’ (cf. E. Clark, 1978; Wales, 1979; Tanz, 1980). But once acquired, the concept is available for one’s whole life; when learning a second language the subject need not learn the underlying mechanisms of contextuality anew; he merely has to learn the particular words referring to the ‘particular speaker’, the ‘particular place of speaking’, etc.

To summarize, there are crucial elements of language mastery that are interrelated with the child’s development; these are mastered in the course of first language learning, and are then available for SLA. This is not to say that there is absolutely no need to develop some new concepts in order to master a second language; in fact, there is usually a need to modify and readjust some existing cognitive concepts, and this may prove a particularly exacting task for the learner. For example, a native speaker of English or German has had no need to develop the category of ‘aspect’ in the same way that a native speaker of Russian has had to acquire it; when learning Russian as a second language, however, the English or German native speaker is obliged to develop the category in an appropriate fashion.

All in all, the cognitive prerequisites of language mastery are more readily available in second language acquisition than in first language acquisition, and this makes first and second language acquisition different in at least one important aspect.

B. Social development

Learning the first language is but one part of the young child’s overall development into a fully-fledged member of society. Language
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enables the child to express feelings, ideas, wishes in a socially accepted manner; the child learns that it is not advisable to speak one’s mind at all times, in any way, or to anyone; he comes to realize that words can serve to make friends as much as foes and that it is not always possible to tell the truth. Language is the medium through which the child acquires the cultural, moral, religious, and other values of society. In the drive to acquire language a child is guided by the principle: ‘Become – with small differences – like others.’ Or else, ‘Acquire a social identity and within its framework, develop your personal identity.’ All this does not apply to most types of SLA. The social identity of the second language learner is more or less fixed. In fact, the desire to preserve one’s identity may become a major obstacle in mastering a second language. The apparent facility with which children learn a second language is often attributed to biological factors, but an alternative explanation might be that, unlike adults, children have no need to fear the loss of their social identity. Leaving the matter for further consideration, we may conclude at this point that first language acquisition is closely linked with the child’s social development; and hence, to the evolution of a social identity; this does not apply to second language acquisition to the same extent.

1.1.2 The language acquisition device

First language acquisition is widely believed to proceed both quickly and easily. This conviction gave rise to what must be seen as the most momentous development in language acquisition research of the past thirty years: Chomsky’s ‘language acquisition device’ (Chomsky, 1959, 1965, 1975). Any normal child, exposed to mostly inadequate and often defective language data, Chomsky argues, comes to know the grammar of his native language within an amazingly short time span. This cannot be accounted for in the framework of behaviouristic learning theories of the kind postulated by Skinner (1957) for verbal behaviour (an orientation which dominated in the USA at the time), so one has to assume that humans are endowed with a language device which

(a) is species-specific, i.e. distinguishes man from other primates,
(b) is specific for language learning as opposed to the acquisition of other forms of behaviour or knowledge,
(c) prestructures the properties of grammar to a large extent (consequently, many structural properties of grammar are innate and need not be learned).

There is no need to quarrel with the thesis that human beings possess what might be called a language acquisition device (LAD) if this only...
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means that they have the capacity to acquire language. What is more disputable is the exact nature of LAD, in particular, the validity of the claims under (a–c). Most important in this context is (c) – the claim that certain structural properties of grammar are innate: the language data available to the child serve to activate latent components of grammar, just as the specifically human system of visual perception develops according to a predetermined biological programme whose activation is contingent upon external stimulation. A child raised in complete darkness could never learn to see; by analogy, a child deprived of speech input could not build up a grammar. Just as it is wrong to say that the characteristics of the human visual system – compared with those of the ant, for example – are constructed, through inductive learning, from what catches the child’s eye, it is equally unreasonable to assume, argues Chomsky, that a child’s language derives from the verbal behaviour of other people. Thus, for Chomsky, the study of mother–child interaction (cf., for example, Snow and Ferguson, 1977) is as illuminating in the context of first language acquisition as would be an inspection of the cradle, the nursery, or of grandma herself for an understanding of the development of the child’s visual perception.

Evidence suggests that each newborn baby is capable of acquiring any human language. The obvious conclusion is that the innate structures of language must be common to all languages, and these constitute what Chomsky calls Universal Grammar. However, the specific features of each language, as for instance those that distinguish Chinese from English, must be inferred from the data made available to a child in the course of first language acquisition. These specific features cover:

- the entire vocabulary,
- the entire morphology,
- the entire syntax (to the extent to which it is treated in conventional descriptive grammar books),
- most of the phonology;

in a word, practically everything. What qualify as components of Universal Grammar are for Chomsky a number of general principles which need not be discussed in detail here since the validity of Chomsky’s views in this respect are still highly tentative and are constantly being developed (see Chomsky, 1981, for the current state of his theory; and Hornstein and Lightfoot, 1981, or Baker and McCarthy, 1982, for its relevance to first language acquisition).
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It is interesting, on the other hand, to consider their implications for second language learning. Chomsky himself has not elaborated on the issue, and there is little in the literature on this subject (but see, for example, Schmidt, 1980; White, 1983; Mazurkiewicz, 1984). Suppose for the moment that the following statements hold true:

(a) Language acquisition is, in the case of the child, easy, quick, and to use Chomsky’s nice phrase – ‘hopelessly underdetermined’ by the accessible language data, whereas for the adult learner it is an extremely arduous, time-consuming, and imperfect quest.

(b) This discrepancy is due to the beneficial effect of Universal Grammar.

The inevitable question is, why should Universal Grammar not benefit an adult? An immediate suggestion is that a human being’s learning capacities are radically reduced with age for biological reasons (more on this in section 1.1.3). But this could not put Universal Grammar completely out of action as it is present all the time and in every language; there is even no need for the learner to activate it in the process of second language acquisition. We might speculate that due to the influence of Universal Grammar on first language acquisition, ‘some open parameters are fixed’ – to use Chomsky’s formulation – and have to be weakened before a second language can be fully acquired; until this is done, they act as impediments. If this were so, second language acquisition should be as troublesome for a child as it is for an adult. Although the problem has not been investigated in depth, current evidence points in the opposite direction; children learn without difficulty two languages in succession, the second one on the whole presenting even less difficulty than the first. We therefore have to conclude that the relatively quick and effortless first language acquisition of the child (and such has been our assumption, till now) is the result of something other than the simple presence of some Universal Grammar.

1.1.3 The ‘critical period’

A first language is normally acquired in childhood. So we might ask whether there is an age beyond which first language acquisition is impossible. A preliminary question here would be: how long does the learning of the first language last? There seems to be no clear-cut answer as long as there are doubts as to what comprises a language and what complete language mastery means. If we consider the babbling of the newborn, or the crying of the infant to express wishes and needs or to
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give vent to feelings, as the beginnings of language development, then we must time birth as the onset of first language acquisition (on this see Kainz, 1959, Part II, chapter 4; Weir, 1962; Fletcher and Garman, 1979, Part I). If we were to regard an active mastery of the second subjunctive or of the dative-accusative distinction as essential for a command of German, most people would not complete the acquisition of their first language in their lifetime.

In general, it is reasonable to assume that little progress is made after the age of puberty. Even though a child is usually quite fluent in his first language in the early school years, the language problems facing the young child are of a limited scale and there are many structures that are acquired at a later age (C. Chomsky, 1969; Karmiloff-Smith, 1979; Lindner, 1983). From this it follows that first language acquisition is neither as easy nor as quick as one tends to assume at the outset. Assuming a child is exposed to language for something like five hours a day, also practising speech in the process (those who have children will agree that this is probably an underestimate), we arrive at a total of about 9,100 hours of active language learning in a child's first five years (cf. Burke, 1974). In spite of this enormous time expenditure, the child is still a long way from being in command of very many structures (such as the much-discussed 'easy' construction, as in 'John is easy to please'). By contrast, many second language schools offer total-immersion programmes where learners are taught a language twelve hours a day for periods of four to six weeks. In a six-week course, the time expenditure amounts to as little as 500 hours, yet this intensive training results in most cases in a reasonable command of the language, albeit limited in terms of vocabulary and syntactic variations. Comparing the two time scales, it is clear that the view of first language acquisition being quick and easy compared with the labour of second language learning is nothing but a myth. Naturally, if first language acquisition is assumed to be completed only at the age of puberty, the contrast is even more striking.

The ill-advised notion of quick and effortless first language acquisition led the neuropsychologist Penfield to the view that this had something to do with the development of the brain in childhood (Penfield and Roberts, 1959). This idea was revived by Lenneberg (1967), who developed it into the widely discussed theory of the critical period for language acquisition. He suggested that between the age of two and puberty the human brain shows the plasticity which allows a child to acquire his first language. This unique capacity is gone once the particular functions of the brain — notably the localization of most speech functions in the left hemisphere
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– have been ‘wired in’ for good. If it is possible to acquire another language after the critical period, this is accomplished in a physiologically different, and more difficult way. In view of this biological distinction, first and second language acquisition (after puberty) must be seen as two different processes.

There can be no question that the critical period theory is of considerable relevance for second language learning, and even more so for second language teaching. If it holds true, we are obliged to employ largely different methods of instruction before and after the age of puberty. But there are serious doubts as to whether it is true. Firstly, the strictly biological evidence is by no means conclusive (for a discussion see Lamendella, 1977; Ekstrand, 1979; Paradis and Lebrun, 1983). Secondly, the notion that second language acquisition becomes more difficult and is less effective after the age of puberty rather than before, is indeed corroborated by everyday observations as well as by some empirical investigations. Nevertheless, the biological explanation can be replaced, or supplemented, by arguments of a social nature. It may well be, for example, that the adult is much less willing to give up his well-established social identity. Even in the case of phonology – including intonation – where adult second language learners often seem to encounter special difficulties, investigations by Neufeld (1979) have shown that suitably motivated adults are capable of mastering to perfection the pronunciation of the (for them) most exotic languages, as revealed by the fact that native speakers could not recognize any ‘foreign accent’ in their speech. This shows that ideal second language acquisition is biologically feasible even after the age of puberty. Nothing can be said on this evidence, however, about relative ease or difficulty, or indeed about what kind of learning may be involved at this stage.

The three issues – cognitive, social and linguistic development; the language acquisition device; and the critical period – have some bearing on bilingual as well as monolingual first language acquisition. A number of peculiarities of bilingual acquisition will be discussed below. Cases of bilingual (i.e. parallel) language acquisition are, admittedly, not very frequent in Western European societies as there is rarely perfect synchrony in the acquisition of the two languages; and here we come to the transition from bilingual first language to second language acquisition. A number of well-documented case studies of the former are available, among them the classical works by Ronjat (1913) and Leopold (1939–49).10 Our discussion here will be restricted to three issues: compound and coordinate bilingualism, the domination of one language over the other (possibly in specific areas), and possible side effects on development.