Perspectives on Foreign and Second Language Pedagogy

*Essays Presented to Kirsten Haastrup
on the Occasion of her Sixtieth Birthday*

Edited by
Dorte Albrechtsen,
Birgit Henriksen, Inger M. Mees
and Erik Poulsen

1998

Odense University Press

The Learner's Word Acquisition Attempts in Conversation

Björn Hammarberg

1. Introduction

For language learners, spoken interaction with target language speakers not only has the function of achieving communication, but also has an acquisitional role in providing opportunities for the learners to expand their interlanguage, chances which different learners will exploit to varying degrees. Formulation attempts furnish occasions for a learner to search, establish, practise and consolidate new expressions, either in spontaneous use in passing or in active cooperation with the interlocutor. Especially the latter case, where the learner appeals to the target language speaker, offers the researcher a possibility to study the acquisitional attempts in detail. Our focus here will be on lexical items. The purpose of the article is to describe and discuss the attempts by one particularly active learner to elicit and try out new vocabulary in conversations with a native speaker.

The study of lexical acquisition processes in language production of course has parallels on the comprehension side. Thus learners' vocabulary expansion by reading has been studied extensively (for a recent review of this research, see de Bot & Paribakht & Wesche 1997). Kirsten Haastrup's (1985, 1987, 1990, 1991) detailed studies of the process of lexical inferencing provide a close-up view on how learners try to find out the meaning of encountered unfamiliar words, focusing especially on how the learners reason about the words and what knowledge they bring to bear on the task.

The (largely) complementary relationship between lexical inferencing and lexical search during formulation can be expressed in the terms of Levelt's (1989, 1993) speech production model, a model of the speaker which has attracted much attention lately. In this framework the entries in the mental lexicon are viewed as the association between a *lemma* part, containing the word's semantic and syntactic information, and a form or *lexeme* part which gives the corresponding phonological shape, or set of shapes. Thus, whereas (for a language learner) lexical inferencing is a matter of establishing a lemma for a given lexical form, lexical search starts with an intended (tentative) notion for which a lemma is expected to exist in the target language, and the task is to arrive at an appropriate lexeme.

The particular type of exchange in the course of learner-native speaker conversations where the learner elicits and receives elements in the target language from the native interlocutor has been discussed earlier by several researchers (De Pietro & Matthey & Py 1989; Py 1990; Vasseur 1990; Bartning 1992, all dealing with L2

acquisition of French). The point they have made is that such exchanges can be viewed as *séquences potentiellement acquisitionnelles*, i.e. they may constitute crucial moments in the learner's acquisition of target language structure. Py (1990) describes such sequences as typically consisting of (i) an elicitation attempt by the learner (Py's French term: *sollicitation*), (ii) a phase where the target expression is given by the interlocutor (*donnée*), and (iii) a phase where the learner shows that he or she has received the target expression (*prise*). Whereas De Pietro et al., Py, and Vasseur stress the cooperative interaction between the learner and the interlocutor and particularly focus on the active role of the latter, our concern will be more with the learner's pre- and post-reception activity, which appears to be particularly elaborate in the case of our present learner.

2. The present study: source of data

The examples to be presented here are taken from a longitudinal corpus of recorded conversations collected within the project "Processes in third language acquisition" which was conducted jointly by the present author (BH) and Sarah Williams (SW).¹ The learner who was the subject of our case study was SW herself. Being a native speaker of English with near-native command of German and additional knowledge of French and some Italian, she moved to Sweden in 1990 and was faced with the task of acquiring Swedish. Thus English was her L1, German her main L2, along with the "other L2s" French and Italian, and Swedish was in this situation her L3.² She was a linguist by profession, having studied languages in England and done research in Germany on child bilingualism, and was now taking up a teaching position at Stockholm University. However, she did not enrol in an organized course to learn Swedish, or devote herself to grammar reading, but relied on acquiring the language in her work and daily life. In order to document her gradual development in Swedish, we – SW and BH – started upon her arrival in Sweden to audio tape conversations between the two of us regularly at approximately two week intervals, an activity which we carried on for about one year and nine months. This yielded a corpus consisting of interviews, discussions and picture narrations and comprising 55,000 word tokens, of which 37,000 were produced by the learner (SW), and 18,000 by the native interlocutor (BH). The linguistic analysis of the material began only after the entire corpus had been collected.

1 For more information about the project, see Hammarberg & Williams (1993); Williams & Hammarberg (1998). An investigation of lexical acquisition was at the planning stage at the time of Sarah Williams' death in December 1996. I am indebted to Sarah for making this project possible and for inspiring work together as long as it could last.

2 A third language (L3) is defined here as a language learnt or used in a situation where the speaker has already knowledge of one or more languages (L2s) other than the first language (L1). Thus an L3 in this sense is not necessarily language number three in order of acquisition.

3. Word elicitation units

In these recorded conversations, there are passages where the learner elicits words from the interlocutor which she needs in the conversation. It is mostly lexical items, mainly content words, which are sought in this manner, even if SW occasionally also elicits grammatical forms and constructions. We will focus here on the lexical area and study the passages in the recordings where the learner makes efforts to acquire a particular target word. Each such passage will be referred to here as a *word elicitation unit* (WEU). WEUs for 301 different target words were found in the corpus, and since some of these words were elicited more than once, there is a total of 374 WEUs.

Example (1) illustrates the basic structure of a WEU. (A key to the transcription is given in the Appendix. The crucial parts of the examples have been put in italics in this and the following examples.)

- (1) S hon kommer på % på % *lörda* *lörda*.
 B 'på *lörda*'.
 S 'på *lörda*'. mhm. % inte inte de här % *lörda* men % en en
 veckan / en vecka % för- försent.

English gloss:

- S she'll come on % on % *lörda* *lörda*.
 B 'on *Saturday*'.
 S 'on *Saturday*'. mhm. % not not this % *Saturday* but % one one
 week / one week % la- later.

The criteria that we require for recognizing a *word elicitation unit* are (a) that the learner shows some activity in eliciting a target word, and (b) that the interlocutor supplies the word, or at least approves a form suggested by the learner. The learner's word-searching initiative is essential here. The target is not simply supplied as a correction initiated by the interlocutor. It seems obvious that when these two criteria are met, there is evidence for an acquisitional attempt. The learner clearly uses word elicitation both as a communication strategy and as a learning strategy. In most cases, the learner will also acknowledge the reception in some form, by a repetition, a *yes* answer, by using the word actively, etc.

It will be apparent at this point that WEUs correspond in their general structure to the potentially acquisitional sequences posited by De Pietro, Matthey and Py. There are, however, some differences in emphasis and perspective between their approach to the phenomenon and the one taken here. First, we are dealing here with lexical items only (which is of course only a practical limitation). Second, while it is understood that the WEU is basically an interactive event, our primary concern is with the learner's activity within this interactive frame. Third, both the WEU as a word-

searching event (a token unit) and the target word as a lexical item (a type unit) will be given attention. Finally, WEUs may be "acquisitional" in a short-term or long-term sense. We will first explore the act of short-term acquisition that each WEU constitutes by definition, and then touch upon the possible long-term acquisitional effect which is suggested by the term *séquence potentiellement acquisitionnelle*.

Example (1) above illustrates a simple, straightforward case of WEU in which S's first turn constitutes what will here be referred to as the *pre-reception phase*, B's turn the *reception point*, and S's second turn the *post-reception phase*. We will look in turn at these successive parts that make up the WEU. Consider the following additional examples:

- (2) S % ja ja va % mycke '<surp- surprised>' / '<über->' / öv-
översrächt / över- översrächade.
B 'du va mycke översräkad'.
S översräkad (B: JA) att han har fö- förstått (B: MHM) % att han
förstått vad ja % hade % hade säjat.

English gloss:

- S % I I was % very '<surp- surprised>' / '<über->' / öv- över- översrächt
/ över- översrächade.
B 'you were very surprised'.
S surprised (B: yes) that he has un- understood (B: mhm) % that he has
understood what I % had % had said.

- (3) S ja tycker om % lären / lä- lärare. ja {tycker} /
B {du tycker} om att vara lärare. {eller} /
S {ja} ja ja tycker om % att lärare / att lära. <i like teaching.>
B ja. % du menar alltså att 'du tycker om % att vara lärare'.
eller 'du tycker om att undervisa'.
S 'undervisa'.
B ja.
S jaha. ja tycker+ om att undervisa.

English gloss:

- S I like % lären / lä- lärare. I {like} /
B you like} being a teacher. {or} /
S {yes} I I like % att lärare / att lära. <I like teaching.>
B yes. % you mean then that 'you like % to be a teacher'.
or 'you like to teach'.
S 'teach'.
B yes.
S well yes. I like to teach.

- (4) S han ändra % = *det här*.
 B mh håret / *frisyren*.
 S *frisyren* å % ågen_i (B: {JAHA}) / {ögen_i}.
- English gloss:
 S he changes % = *this*.
 B mh the hair / *the hairstyle*.
 S *the hairstyle* and % the eyes_i (B: {yes}) / {eyes_i}.
- (5) S ja tycker inte om att % att har % / <*what's 'feeling'?*>
 B '*känsla*'.
 S att har *känslan* % att j- / att % de är mycke tråkig (B: MHM) %
 för personerna när ja % be- berädda nånting.
- English gloss:
 S I don't like % having % / <*what's 'feeling'?*>
 B '*feeling*'.
 S having *the feeling* % that I- / that % it's very boring (B: mhm) %
 for the persons when I % te- tell something.
- (6) S målar+_i / målen_i målen_i må- /
 B 'målar' (English: 'the painter')

The *pre-reception phase* of a WEU contains the learner's elicitation attempts, often combined with tentative word constructions, as in the examples here. Various types of elements in the learner's utterances may function as signals of elicitation:

- iteration of a form (ex. (1) above);
- metalinguistic questioning intonation on a tentative form, as indicated by "i" in ex. (1);
- gradual build-up of a form by partial iteration, as in (2) and (3): *öv- över- överräscht; lä- lärare*;
- self-repair, marked here by "f", as in (2) and (3);
- language switch, marked here by "< >";
- a noticeable empty pause ("=") and/or a pause-filling sound ("%"), as seen in example (4);
- a deictic indication, as in (4): *det här* 'this', where the learner points to her hair;
- an explicit question to the interlocutor to supply the intended word, as in (5);
- turn interruption, as in (6) (turn ending with "f" after an incomplete utterance).

There is a variation in explicitness between these different types of elicitation signals. *Language switches* and especially *overt questions* are obviously explicit means

which form clear cues for the interlocutor. At the other end of the scale are such elements as *pause*, *pause filler*, *iteration* and *gradual build-up*. Being normal elements of utterance production they occur freely even outside WEUs. They never achieve elicitation by themselves, but only in combination with more explicit signals. But then they undoubtedly contribute to the impression that the learner is searching for a word. Hence it seems justified to count them as (co-)signals of elicitation. *Self-repairs* and *turn interruptions* of course also occur in normal spoken interaction; whether they will call forth a response from the interlocutor will depend on the extent to which he perceives the utterance as unsuccessful. *Metalinguistic question intonation*, while obviously constituting an appeal to the interlocutor, may or may not by itself work as elicitation. Such intonation patterns on lexical items are sometimes found in the learner's utterances even where no WEUs arise.

A closer look at the learner's *elicitation strings* in the pre-reception phase shows that they tend to be structured in certain ways. Elicitation strings usually consist of *language switches* and/or *word construction attempts* as their major components. The use of switches into English or German (or, occasionally, French) is obviously conditioned by the fact that SW at the time knew that these languages were mutually available to both speakers. Switches used for word elicitations are of a type that we have defined in an earlier study (Williams & Hammarberg 1998) as "inserts", e.g. '*feeling*' in example (5). They may occur either within a "frame", i.e. an explicit question such as *what's* in example (5), or just with a metalinguistic question intonation. Switching can be characterized as a convenient shortcut strategy, since a switch requires little processing effort and defines the intended notion very explicitly in terms of a familiar background language; a switch is, as it were, the lazy way and the efficient clarifier. By contrast, attempts at target word construction represent the more ambitious way in that the learner offers her own suggestions for a solution to the formulation problem. This often leaves traces of the processing effort and may form evidence of the current state of the interlanguage.

In many cases switches and constructions are combined in the same elicitation string. Then switching may occur either before or after the corresponding constructions. That is, either the intended notion is established by means of a switch, as a point of departure, and is followed by one or more attempts to construct the form, as e.g. in (2). Or a form is first attempted and the switch is added as a cue to the interlocutor, e.g. in (7). Possible motivations for a switch in this position are that the speaker is not satisfied with her construction, that she feels that the intended notion ought to be further clarified, and/or that she feels that a stronger elicitation signal is needed for the interlocutor to react.

- (7) S i den = *tret- trette* / <whats 'third'? = 'third'?>
 B 'den *tredje*'.

English gloss:

- S in the = *tret- trette* / <whats 'third'? = 'third'?>
 B 'the *third*'.

A related type is when the learner resorts to a switch in the following turn as an explanation because the target language speaker fails to understand the construction attempt, as in (8).

- (8) S ... I was going to say> / ja ville säga att han % han *överlignar* =
 han *överlignar sej.* = % /
 B de förstår ja inte.
 S <'über' / er 'überlegt es (B: JAHA) sich'.>

English gloss:

- S ... I was going to say> / I wanted to say that he % he *överlignar* =
 he *överlignar sej.* = % /
 B that I don't understand.
 S <'over' / 'he thinks it (B: OH YES) over'>
 [Target word: *fundera (på det)* 'think (it) over']

The construction part often contains a self-repair sequence. Two types of such self-initiated self-repairs occur regularly: a gradual build-up from an initial part to a complete word form, as in (2), (3) or (7), and a string in which the learner works her way from a more L1/L2-based form towards a more purely L3-based construction, as in (9):

- (9) S ja är mycke lat. (B: MHM) % därför att ja har % ja har inte gjort gjort
 en % *ans- ansträngung* / *anstränging* /
 B ja. '*ansträngning*'.
 S '*ansträngning*'.

English gloss:

- S I am very lazy. (B: MHM) % because I have % I haven't made made
 an % *ans- ansträngung* / *anstränging* / [German gloss: *Anstrengung*]
 B yes. '*effort*'.
 S '*effort*'.

It should also be noted that a deictic indication, as in (4) above, is very rarely used by SW as an elicitation strategy; in fact, this is the only example found in the corpus. Switches and construction attempts are the methods she regularly uses to indicate what she refers to.

The *reception point* is the point where the interlocutor supplies or confirms the target word. This is mostly achieved by a simple response turn, but there may also be a negotiating exchange to establish the target word, as exemplified in (3) and (8). The interlocutor may be caused to give or confirm the target more than once, as in (3) and (10), in which case we will count the first instance as the reception point. Defined in this way, the reception point forms the boundary between the learner's elicitation activity (in the pre-reception phase) and securing activity (in the post-reception phase).

(10) S å sen % ska ja % t- tälten _i /	S and then % I will % t- tälten _i /
B % 'du ska tälta'	B % 'you will camp'.
S 'tälta'	S 'camp'.
B {ja.}	B {yes.}
S {<that's> 'camping' is it?>}	S {<that's> 'camping' is it?>}
B ja.	B yes.
S {ja.}	S {yes.}
B {du} ska sova i tält.	B {you} will sleep in a tent.
S ja.	S yes.
B ja.	B yes.
S ja {ska tälta} /	S I {will camp} /
B {de e 'att} tälta'.	B {that is 'att} tälta'. ['to camp']
S ja ska tälta en vecka med en	S I will camp for a week with a
% med en bra vän av mej _i .	% with a good friend of mine _i .

In the *post-reception phase*, the learner may acknowledge the reception of the target word, request some clarification and/or take steps to secure retention. This will be done by various means, as seen in the examples above:

- a *yes* answer;
- a citing repetition (metalinguistic citing of expressions is marked by simple quotes in the transcripts);
- call for confirmation;
- questions about the target word (e.g. in (10)): its meaning, appropriate use, syntax, or form;
- using the word functionally in a meaningful context (as distinct from a citing repetition);
- re-using the word later in the same conversation.

In the majority of instances, SW confirms reception of the target word immediately by a citing repetition. She usually catches the target form correctly when it is given and very rarely asks about its form, usage or grammatical properties. Post-reception patterns vary from a mere citing repetition to a more elaborate sequence, e.g. citing repetition – functional use – prompt re-use. It is also rather common for her to go directly from reception to functional use of the word in context, as illustrated in (5) above.

If we consider the overall structure of SW's WEUs and the way they are integrated into the conversational context, the systematic combination of communicative and acquisitional efforts is noteworthy. The WEU always arises in a communicative context and commences when SW calls attention to the intended target word, thus shifting from the level of the conversational topic to the metalinguistic level of word elicitation. The communicative activity then for a while focuses on the word search. But she always resumes her previous thread of discourse after receiving the target word, continuing where the WEU began.

It is obvious that SW in these recordings represents an active type of word eliciter. This is reflected in the high frequency of WEUs in the corpus, in the purposeful way in which she proceeds, and in the range of various strategies that she applies. Presumably this activity level is due both to individual factors (such as her background as a linguist, her language-learning motivation, and a general ease to communicate) and to the type of conversational setting in which a permissive attitude prevailed towards frequent appeal for linguistic items.

4. The roles of the languages

As we can see in the examples given, the learner's background languages are frequently involved in the elicitation attempts, partly in language switches and partly in tentative word constructions. As shown in Williams & Hammarberg (1998), there is a strong tendency towards a specific role distribution between the learner's L1 and L2 here. It is primarily L2 (German) which influences word construction attempts and also occurs in automatic, non-intentional switches during formulation in L3. We have referred to this role of supplying language material for the attempted utterances in L3 as a *supplier role*. On the other hand, L1 (English) is the language which most frequently occurs in other types of language switches, which can be associated with various pragmatic functions in the discourse such as editing, commenting, eliciting or clarifying. This role was referred to as an *instrumental role*. To choose one example for illustration, consider again the elicitation string in (2) above, repeated here as (11):

- (11) S % ja ja va % mycke '<surp- surprised>' / '<über->' / öv- över-
överräscht / över- överraschade.

The switch *surprised* here is interpreted as an 'insert', used as an eliciting strategy, whereas *über-* is interpreted as a non-intentional slip in the production of the tentative L3 forms *överräscht*, *överraschade*. The target word is *överraskad* 'surprised', and the German counterpart is *überrascht*. Thus the L3 word construction attempt appears to be guided by an equivalent German lexeme, which means that the L2 is also activated in the learner's L3 production. For a full discussion of this role distribution of background languages and its implications for a model of the polyglot speaker, see Williams & Hammarberg (1998).

5. Long-term acquisition?

Does the learner retain the elicited words? That is, do the WEUs constitute crucial moments where new vocabulary is durably acquired?

This issue is rather complicated. The long-term retention or non-retention of a new word in the learner's lexicon can be due to many factors. It is difficult to judge the contribution of a WEU in this respect, even on the basis of a longitudinal corpus, not least due to the fact that we cannot control the learner's language use between recording sessions. But still, a longitudinal follow-up of the elicited words in the corpus is not without value, since it may provide some indications. Table 1 gives a quantitative overview of the target words and their reappearance patterns.

Table 1. Re-use and re-elicitation of elicited target words.

Legend:	Nonce	= target words elicited once and not reappearing in later recordings.
	-R	= target words elicited more than once and not reappearing in later recordings after the last WEU.
	*R	= elicited target words which are incorrect at least some of the time when reappearing after the last WEU.
	R	= elicited target words which are correct whenever reappearing after the last WEU.

No. of WEUs on same target	Target words	WEUs	Longitudinal pattern			
			Nonce	-R	*R	R
1	246	246	134		22	90
2	44	88		15	5	24
3	7	21		2		5
4	2	8		1	1	
5	1	5			1	
6	1	6				1
Total	301	374	134	18	29	120

As can be seen in the table, the great majority of the target words (246 out of 301) were elicited just once; 44 words were elicited a second time, and 11 words three or more times. The 134 nonce items tell us nothing about retention, but those words which were elicited again or otherwise reoccurred allow some observations. To obtain a schematic comparison, we may contrast the set of 90 words which were elicited once and were then handled correctly (indicating successful acquisition) with the set of words which had to be elicited twice or more (a total of 55 words, representing less successful acquisition the first time).

It seems relevant to examine how the learner handles the new item upon receiving it. Bartning (1992), reviewing Py's notion of potentially acquisitional sequences, suggests that the likelihood of durable acquisition depends on (a) the more or less explicit manner in which the learner acknowledges the reception of the expression when it has been given, and (b) whether the target expression is re-used in an adequate way later.

To some extent, this can be attested in our longitudinal corpus. SW generally responds in some way to the reception of an elicited lexeme. One may expect that if she uses the elicited word functionally in a communicative context upon reception, rather than producing just a citing repetition or a "yes" response, this will facilitate retention. A check through the two sets of reappearing target words, inspecting the only WEU in the "once-and-correct" set and the first WEU in the "re-elicited" set, reveals some quantitative differences. It turns out that such communicative use of the word in close connection with the reception occurs with 74 targets (82%) in the "once-and-correct" set, compared to 37 targets (67%) in the "re-elicited" set. A stronger difference in the same direction appears when we consider whether the learner re-uses the new word in an adequate shape later in the same conversation. This happens in 24 cases (27%) in the "once-and-correct" set, compared to 2 cases (3.6%) in the "re-elicited" set. This lends credibility to the hypothesis that the communicative and adequate use of the word soon after reception has an effect on long-term retention.

6. Conclusion

The examples given here show that the learner's attempts to acquire new words during the conversations are systematically structured and form characteristic, regular patterns. We have analysed the learner's behaviour in terms of eliciting activity in the pre-reception phase and securing activity in the post-reception phase. In the case explored here, the learner's driving role in the process is reflected in the intense and varied use of different acquisitional strategies and the high frequency of WEUs in the corpus. We have touched upon the systematic and differential involvement of the learner's background languages in the process, an issue further discussed in an earlier study. And, distinguishing the notions of short-term and long-term acquisition, we addressed briefly the question to what extent the learner's acquisitional

attempts in the communicative situations have a lasting effect on the development of the interlanguage.

Even if WEUs keep occurring in every session throughout the 21-month longitudinal corpus, they are, not unexpectedly, most frequent during the early stage. Thus the majority of the WEUs occur within a couple of months from the start, and most of the examples cited here are from this early period. It may therefore seem tempting to regard word eliciting as a phenomenon specific to language learners, especially beginning and intermediate learners, and to view the use of eliciting and securing strategies as something learner-specific. This may certainly be justified as far as the frequent use of such strategies is concerned. But a look at the various types illustrated above makes it obvious that these types of features can all be recognized in some form in the speech of mother-tongue speakers. These speakers, too, sometimes encounter lexical gaps and need to learn words and appeal to interlocutors. Pauses, pause fillers, iterations, gradual build-ups, self-repairs and unfinished turns are of course well-known features of ordinary formulation work in conversations, and they may well reflect word search. Appeals to the interlocutor for feedback on formulations also occur among mother-tongue speakers, and means such as metalinguistic question intonation, deictic indications and explicit questions for words do occur. Language switches in interaction between speakers with a native or native-like competence would seem appropriate and natural in settings where the speakers have adopted what Grosjean (1995) has termed a "bilingual mode", and there seems to be no reason why switches could not be used in connection with appeals for words here. Nor is post-reception behaviour such as citing repetition, checkbacks and purposeful re-use of new words alien to native speakers. Hence what our learner does is to exploit standard verbal means which are available to her as an ordinary human talker, but to an extent which is conditioned by the circumstances. If we thus distinguish the means from the extent to which they are exploited, different learners can be characterized with respect to how variables such as background knowledge and attitudes, perceived needs, learning stage, communicative setting etc. influence the extent to which they utilize common human conversational means.

References

- Bartning, I. (1992). L'activité interactionnelle dans une étude longitudinale de l'acquisition du français langue étrangère. In R. Bouchard et al. (eds). *Acquisition et enseignement/apprentissage des langues. Actes du VIII^e Colloque International. Acquisition d'une langue étrangère: perspectives et recherches*. Grenoble: Lidilem: 123-136.
- de Bot, K., Paribakht, T.S. & Wesche, M.B. (1997). Toward a lexical processing model for the study of second language acquisition: evidence from ESL reading. *Studies in Second Language Acquisition* 19: 309-329.
- De Pietro, J.-F., Matthey, M & Py, B. (1989). Acquisition et contrat didactique: les séquences potentiellement acquisitionnelles de la conversation exolingue. In D. Weil & H. Fugier (eds). *Actes du troisième colloque régional de linguistique*. Strasbourg: Université des sciences humaines et Université Louis Pasteur: 99-124.
- Gaonac'h, D. (ed.) (1990). *Acquisition et utilisation d'une langue étrangère: l'approche cognitive*. Paris: Hachette.
- Grosjean, F. (1995). A psycholinguistic approach to code-switching: the recognition of guest words by bilinguals. In L. Milroy & P. Muysken (eds). *One speaker, two languages: cross-disciplinary perspectives on code-switching*. Cambridge: Cambridge University Press: 259-275.
- Haastруп, K. (1985). Lexical inferencing – a study of procedures in reception. *Scandinavian Working Papers on Bilingualism* 5: 63-86.
- Haastруп, K. (1987). Using thinking aloud and retrospection to uncover learners' lexical inferencing procedures. In C. Færch & G. Kasper (eds). *Introspection in second language research*. Clevedon & Philadelphia: Multilingual Matters: 197-212.
- Haastруп, K. (1990). Developing learners' procedural knowledge in comprehension. In R. Phillipson, E. Kellerman, L. Selinker, M. Sharwood Smith & M. Swain (eds). *Foreign/ second language pedagogy research*. Clevedon & Philadelphia: Multilingual Matters: 120-133.
- Haastруп, K. (1991). *Lexical inferencing procedures or talking about words*. Tübingen: Narr.
- Hammarberg, B. (1993). *Principer för transkription av talspråkstexter i ASU- och L3-projekten*. Stockholm University, Dept. of Linguistics.
- Hammarberg, B. & S. Williams (1993). A study of third language acquisition. In B. Hammarberg (ed.). *Problem, process, product in language learning*. Stockholm University, Dept. of Linguistics: 60-70.
- Levelt, W.J.M. (1989). *Speaking: from intention to articulation*. Cambridge, MA & London: The MIT Press.
- Levelt, W.J.M. (1993). The architecture of normal spoken language use. In G. Blanken, J. Dittmann, H. Grimm, J.C. Marschall & C.-W. Wallesch (eds). *Linguistic disorders and pathologies: an international handbook*: 1-15.
- Py, B. (1990). Les stratégies d'acquisition en situation d'interaction. In D. Gaonac'h (ed.): 81-88.
- Vasseur, M.-T. (1990). Interaction et acquisition d'une langue étrangère en milieu social. In D. Gaonac'h (ed.): 89-100.
- Williams, S. & B. Hammarberg (1998). Language switches in L3 production: implications for a polyglot speaking model. *Applied Linguistics* 19: 295-333.

Appendix

Transcription conventions

Transcription conventions used are based on Hammarberg (1993). A modified form of standard Swedish orthography is used, in which the common "spoken language forms" (such as *de*, *va*, *mycke* etc. for standard written *det*, *var*, *mycket* etc.) are rendered when the speaker uses them.

=	empty pause
%	pause filler
-	interrupted word
+	morphologically unclear ending
/	interruption, reformulation; non-completed sentence
?	completion of question sentence
.	completed sentence other than question
¿	questioned expression (indication by intonation that feedback is required pertaining to this item)
“ ”	used when the speaker quotes an expression
< >	used around a non-adapted switch into a language other than L3
{ }	overlap: simultaneous speech by two speakers