Language Acquisition and Use in Multilingual Contexts

Flyman Mattsson, Anna; Norrby, Catrin

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Introduction

Anna Flyman Mattsson
Catrin Norrby

This volume brings together current linguistic research in a range of predominantly multilingual contexts. The authors draw on data from different languages and speech communities around the world, and together the chapters offer a broad picture of language acquisition, development and use – among both children and adults. While this is a valuable undertaking in its own right, the main reason for this collection is to pay tribute to Gisela Håkansson on her 65th birthday. Throughout her career Gisela Håkansson has made, and continues to make, a very significant contribution to the field of linguistics, in particular through her research in first and second language acquisition, multilingualism and language impairment. The authors and editors of this volume have all collaborated with Gisela in one way or other: as partners in international and national research projects, or as colleagues, particularly in the Centre for Languages and Literature at Lund University, where she is professor of linguistics. Through her research, inspirational teaching and public engagements in the wider community, she is also a mentor and friend. Many colleagues, former students and friends, in Sweden and abroad, wish to congratulate Gisela on her birthday, which the tabula gratulatoria bears witness to. The 16 peer-reviewed chapters, organised alphabetically, are briefly introduced below.

The volume opens with a contribution by Aafke Buyl and Alex Housen which explores the applicability of Processability Theory (PT) to L2 receptive grammar acquisition. The analysis of comprehension data from an immersion school in Brussels, where francophone children learn English as L2, suggests that L2 receptive grammar acquisition is governed by the same processing procedures as productive grammar acquisition, with results overall in line with the general predictions of PT.

PT also provides the theoretical underpinning for the chapter by Jonas Granfeldt and Malin Ågren in which they investigate the relationship between second language development, as outlined in PT, and second language proficiency as measured by the CEFR test, based on written L3 French data produced by Swedish secondary school students. The results show a correlation between CEFR ratings and the PT analysis, particularly at lower

levels, where communicative proficiency and morphosyntactic development largely go hand in hand.

Marianne Gullberg's chapter examines the role of gestures in child and adult learner data and poses the question whether gestures are compensatory. The main findings demonstrate that gestures do not replace, but typically co-occur with speech to form an integrated system. Nevertheless, there are situations when gestures are used as a compensatory device to solve interactive or grammatical difficulties, indicating that gestures can be compensatory, but not without qualifications.

The contribution by Arthur Holmer discusses the relationship between input and output in first language acquisition, arguing that while members of a certain speech community can produce identical structures, their internal grammars can radically differ. Such parallel grammars could be in stable balance, as is the case in Swedish, but could also be unstable, opening up for language change, as illustrated in the chapter by the Austronesian language Tgdaya Seediq spoken in Taiwan.

Acquisition of prosody in a simultaneously bilingual boy at 30–32 months, exposed to both Swedish and English in the home, is the topic of Merle Horne's contribution. The results show that the boy is acquiring inflectional morphology and the morpho-phonological rules for associating word accents in Swedish with different grammatical affixes. While the data provide insights into to the acquisition of the prosody-morphology mapping, the author calls for more comprehensive longitudinal studies in order to better understand this relationship.

In Victoria Johansson's chapter we turn to the relation between speech and writing, and in particular how young learners develop their writing skills over time. Based on both spoken and written tasks, the results demonstrate that the youngest participants (10-year-olds) rely on linguistic and pragmatic features typical of spoken language when writing, and that becoming a competent writer takes time and effort.

The renewed interest in translation tasks in L2 learning contexts, in particular from the perspective of deep approaches to learning, is the topic of Marie Källkvist's chapter. Her longitudinal study of the effects of translation on L2 grammar development in three Swedish EFL university classrooms indicates that carefully designed translation tasks can be a very useful learning tool in classrooms where all participants share the same L1.

With Satomi Kawaguchi's chapter we return to the framework of PT and, in particular, the Lexical Mapping Hypothesis developed within PT. Twenty-two Japanese L1 speakers with English as L2 participated in a vocabulary size test and a translation task into English. The results demonstrate that canonical mapping precedes non-canonical mapping, and that successful non-canonical mapping is characteristic of advanced syntactic development. In terms of lexical size, the results suggest that only learners with a large vocabulary can handle non-canonical mappings without problems.

Kristin Kersten and Andreas Rohde address the question of early foreign language learning in the context of European pre- and primary schools. They draw on findings from their research on bilingual kindergartens as part of the EU-funded ELIAS project (see also the chapter by Anja K. Steinlen). In addition, they also discuss two specific primary school programmes in Germany: *early start* and *CLIL*, where a substantial number of content subjects are taught in the target language. The chapter concludes that an early introduction of the L2 is beneficial, as long as the teaching methods focus on communicative content and meaningful interaction.

With the chapter by Inger Lindberg and Kenneth Hyltenstam the focus shifts to policy issues, and how the Swedish school system manages to look after the needs of multilingual students – here referring to students with an L1 other than Swedish, or an additional L1 other than Swedish. The authors critically examine the development of the subject *Swedish as a second language*, and point to shortcomings in its implementation, leading to its overall low status. They present a number of suggestions for enhancing the language education outcomes for multilingual students of varying backgrounds and proficiency levels.

The chapter by Manfred Pienemann, Jörg-U. Keßler and Anke Lenzing contributes to the ongoing debate in SLA research about the role of transfer. The authors examine recent research findings which claim that L2 transfer accounts for the structural outcome in the L3. Based on a critical review of this research, and on their own study of the acquisition of Swedish as L3 by German L1 speakers with varying L2s, the authors conclude that learners only transfer structures – from L1 or L2 – when they are developmentally ready, lending support to the Developmentally Moderated Transfer Hypothesis developed within the framework of PT.

Eva-Kristina Salameh and Ulrika Nettelbladt's chapter examines lexical development in bilingual children. Forming part of a project on bilingual education for Swedish-Arabic bilingual children, they investigated the size and organisation of the children's lexicon by means of a word association test. Compared to a control group of Swedish-Arabic bilinguals educated in Swedish only, the bilingual group's lexicon was more hierarchically organised with greater use of paradigmatic associations. This, the authors argue, underscores the importance of offering bilingual children education in both their languages to promote their successful linguistic development.

Bilingual education is also the focus in Anja K. Steinlen's chapter, which discusses the success of early English immersion programmes in German, Belgian and Swedish bilingual preschools. Her research, forming part of the ELIAS project (see also Kersten & Rohde, this volume), showed no significant differences in the receptive English grammar and vocabulary knowledge between children of immigrant and non-immigrant backgrounds. This result contrasts sharply with earlier claims that children of other L1s than the

majority language are disadvantaged by the early introduction of another additional language.

Jan-Olof Svantesson charts the history of different writing systems developed for Mongolian, starting with the introduction of the Uighur Mongolian script in the 1200s, used until the adoption of the Cyrillic alphabet in the 1940s. New writing systems in Mongolia have been initiated almost exclusively by the state; however, nationalism was the driving force behind the unsuccessful attempt to replace the Cyrillic script by reinstating the old Uighur Mongolian script in the 1990s. The author argues that its failure is explained by increased literacy among the population, where people have learnt and use the Cyrillic script, while the old script is completely unknown to a large majority.

Constraints on how consonants and vowels combine – the phonotactic rules of a language – is the topic of Joost van de Weijer's contribution. It focuses on the avoidance of identical segments, the so-called obligatory contour principle, known to occur in many languages. Through an empirical analysis of Swedish phonological structure, the author shows that repetition of identical consonants in the same word is often significantly lower than their overall frequency would suggest.

In the final chapter, by Elisabeth Zetterholm, we return to language education in a university classroom context. The chapter discusses the acquisition of Swedish pronunciation by speakers of Australian English, who were either enrolled at the University of Melbourne or on exchange to Lund University. The results indicate that all learners, irrespective of the learning environment, displayed pronunciation features consonant with earlier findings for English background speakers learning Swedish. However, the students learning Swedish in Sweden showed greater fluency and were capable of holding a spontaneous conversation with the researcher in Swedish.

Testing the applicability of PT to receptive grammar knowledge in early immersion education

Theoretical considerations, methodological challenges and some empirical results

Aafke Buyl
Alex Housen

Introduction

Since the morpheme studies in the 1970s (Dulay & Burt 1974; Larsen-Freeman 1975), the notion of universal developmental stages in L2 grammar acquisition has been much investigated in SLA research, and has, thanks to a large body of empirical evidence, found widespread (though not universal) acceptance (Ellis 2008; Ortega 2009). An explanatory account of staged and predictable L2 grammar acquisition is offered by Processability Theory (PT) (Pienemann 1998, 2005). PT is more comprehensive than many other accounts of L2 grammar development in that it makes clear and falsifiable predictions (Jordan 2004), accounts for a wide range of grammatical phenomena, and is psychologically plausible for a wide range of typologically diverse L1s. What has remained largely unexplored, however, is whether PT applies to receptive as well as productive grammar acquisition. Although Pienemann (2007) has claimed that "at any stage in the development the learner can produce *and comprehend* only those L2 linguistic forms which the current state of the language processor can handle" (p.137, emphasis ours), empirical data for the theory have come almost exclusively from production data. This study presents one of the first attempts to investigate the applicability of PT to receptive grammar acquisition.

The empirical data presented in this paper were partly collected within the framework of the ELIAS (Early Language and Intercultural Acquisition Studies) project (Kersten et al. 2010), which investigated L1, L2 and intercultural learning in nine immersion (pre)schools in Germany, Belgium and Sweden between 2008 and 2010.

The present paper bears a close relationship to Gisela Håkansson's work both in its use of PT as a theoretical framework (Håkansson 1997, 2001; Håkansson et al. 2002) and in its use of data from the ELIAS project, in which Gisela Håkansson was coordinator of the Swedish study. Previous exploratory attempts to investigate the applicability of PT to receptive grammar acquisition have been undertaken by Gisela Håkansson (e.g. 2012), using the Swedish data she collected for the ELIAS project.

Principles of PT

Processability Theory is a theory of L2 grammar acquisition designed to explain the staged development in L2 learners' grammar knowledge. Based on Levelt's (1989) Model of Speech Production, PT assumes that in the course of the production process, grammatical information is stored in memory and retrieved at later points in the language generation processing to unify grammatical information between constituents (e.g. number agreement between the subject and the verb). This exchange of information, or feature unification, it is further assumed, is executed in the course of the language production process by five hierarchically-ordered 'processing procedures':

1. the lemma procedure, which accesses lexical entries
2. the category procedure, which accesses the categorical information of the lexical entries
3. the phrasal procedure, which unifies information within phrases (e.g. between determiner and noun)
4. the S-procedure, which unifies information between phrases (e.g. subject-verb agreement) and
5. the subclause procedure, which builds subclauses.

PT predicts that L2 learners acquire the processing procedures necessary for the exchange of grammatical information in the same hierarchical order as they are executed in production. Because all L2 learners develop processing procedures in the same order, the grammatical phenomena that require one of these processing procedures become available to all L2 learners in the same order.

PT's processing procedures are claimed to be universal across languages. However, since each language has its own grammar with its own word order rules and morphology, developmental schedules (i.e. which grammatical structures arise at each stage) are language-specific. For the development of L2 grammar in English, PT, in its most recent version, (Pienemann 2005; Pienemann & Keßler 2011) distinguishes six developmental stages (Table 1).

Table 1. Developmental Stages in English.

Stage	Processing Procedure	Example(s)
6	subclause-procedure	'Cancel Inversion' (*I wonder where he is*)
5	S-procedure	subject-verb agreement (*he sees you*)
4	VP–procedure(*)	tense agreement (*I have seen you*)
3	phrasal procedure	plural-agreement (*two cats*)
2	category procedure	plural –s (*cats*)
1	word/lemma	single words; formulae

(*)Verb Phrase procedure, a procedure specific to English which deals with the exchange of grammatical information within verb phrases

Theoretical considerations

Studying receptive L2 grammar acquisition within a PT framework requires a consideration of the theoretical plausibility of the applicability of PT to receptive grammar acquisition. As Ellis (2008) points out, "PT is in actuality a theory of language *production*" (461, emphasis ours). A crucial theoretical consideration therefore is that, in order for PT to be applicable to language comprehension, the principles of Levelt's model that underlie PT should be psychologically plausible for L2 grammar comprehension as well.

In more exact terms, applying PT to comprehension assumes (a) that language comprehension involves the same processing procedures as language production and (b) that these processing procedures also steer the *development* of learners' receptive L2 grammar processing abilities. Neither of these issues can be resolved by looking at the available psycholinguistic (or L2 acquisition) research. Psycholinguistics has not yet reached consensus on the exact nature of the language comprehension process (Fernández & Cairns 2011; Garman 1990; Van Gompel & Pickering 2007). A relevant finding from psycholinguistic research is that agreement processing is a psychologically real process in language comprehension (Pearlmutter et al. 1999) but whether this means that feature unification also plays as central a role in (L2) grammar comprehension and L2 grammar development as it is claimed by Levelt's model and PT, cannot be resolved at this stage.

The unresolved nature of receptive language processing not only justifies an investigation of the applicability of PT to receptive grammar acquisition, it also forms a further rationale for this study: an empirical PT study on receptive grammar acquisition may inform us on the similarities between receptive and productive processing, and thus have implications beyond the field of L2 acquisition research.

Methodological challenges

Studying receptive grammar acquisition within a PT framework also poses major methodological challenges. A first challenge, common to all studies of receptive L2 grammar knowledge, relates to the definition and assessment of receptive grammar knowledge. Receptive grammar knowledge can be defined as the ability to process receptive grammar knowledge for comprehension. Since the comprehension of utterances, in contrast to their production, does not always require grammatical parsing, but can sometimes rely on semantic cues (Bates et al. 1984; Boland 1997; Garman 1990; Van Gompel & Pickering 2007), such as event probability (Jurafsky 1996) or noun animacy (McDonald 1987), it must be ensured that semantic knowledge does not form a confounding factor in the assessment of receptive grammar processing. Furthermore, because PT is built around the mechanism of feature unification (or agreement), the assessment of learners' *receptive* processing of the different types of feature unification defined by PT forms an additional methodological prerequisite and challenge.

An additional and specific methodological challenge for comprehension studies using PT rather than other models is the concept of 'emergence'. According to PT, the acquisition of a processing procedure does not (have to) result in native-like production. Rather, PT claims that when a processing procedure is acquired, the grammatical phenomena that require this processing procedure will emerge in the learners' production, i.e. they are used productively and systematically (as opposed to merely as memorized chunks), though not necessarily correctly in all obligatory contexts. Emergence has been operationalized for spontaneous production only, namely as first, systematic use. Previous PT studies that did not use spontaneous production data came up with ad-hoc solutions such as several acquisition criteria (Glahn et al. 2001) or group accuracy rates (Baten 2011), but a widely applicable operationalization of emergence for non-spontaneous production and comprehension is not yet available. This study will therefore adopt its own ad hoc solution to the problem (see below, *Design and Methodology: Emergence*).

Research questions

The research questions that guided our study are:

a) Is there a universal developmental order in the receptive acquisition of L2 grammar?
b) If so, is this pattern in line with the predictions made by PT?

Design and methodology

Participants

The participants are francophone children learning English as an L2 in an immersion school in Wallonia, Brussels. The school uses English as the medium of instruction for 50% of the curriculum (±14 hours/week), starting in the third year of kindergarten (age 5–6) and continuing throughout the six years of primary school (age 6–12). All participants spoke French as an L1. About 25% of them used an additional language at home. None of the pupils had had any direct or sustained contact with English prior to entering the English immersion programme around the age of five.

For the longitudinal study, thirteen pupils were tested four times over the course of 3.5 years, i.e. in kindergarten (T1) and in the first (T2), second (T3) and third (T4) year of primary school. The time spent in the immersion programme (incl. holidays) was 7 months at T1, 18 months at T2, 30 months at T3 and 37 months at T4.

The cross-sectional study comprises three age/proficiency cohorts, consisting of 72 pupils from the first (n=28; including the 13 learners participating in the longitudinal study), second (n=23) and third (n=21) year of primary school. All three cohorts were tested once (coinciding with T2 in the longitudinal study). Time spent in the immersion programme at the time of testing was 18, 29 and 41 months for primary 1, 2 and 3 respectively.

Target phenomena, instrument and procedure

The present study investigates the development of six grammatical phenomena. Four of these are predicted to emerge at stage 2 of the Processability Hierarchy for English: plural marking on lemmas (PLU; e.g. *cats*), canonical word order (SVO; e.g. *The boy is kissing the girl*), genitive 's (GEN; e.g. *The girl is feeding the boy's dog*) and negation expressed by the negator *not* (NEG; e.g. *The duck is not eating*). The two remaining phenomena involve subject-verb agreement, either with main verbs (AGRv; e.g. *The sheep eats*) or with the copula be (AGRc; e.g. *The deer is white*) and hence are predicted to emerge at stage 5. Learners' knowledge of the six phenomena was tested with the ELIAS Grammar Test (GT) (Steinlen et al. 2010), a picture selection task developed for testing L2 grammar development of the immersion learners in the ELIAS project (Kersten et al. 2010).

There are six prompts for each phenomenon. Each prompt was orally presented to the learner simultaneously with a set of three response pictures (one correct, one incorrect, one distractor). Learners responded by pointing to the picture they felt matched the prompt. All learners were tested individually by the same researcher, who also provided the prompts.

Implicational scaling

The data were analysed by means of implicational scaling, the preferred method of analysis within PT research (Pienemann 2005). Of interest in the present study is whether the scaling analysis (see Hatch & Lazaraton 1991 for more information on the procedure) shows that the stage 2 phenomena (GEN, NEG, SVO, PLU) are acquired before the stage 5 phenomena (AGRv, AGRc), consistently across individuals.

Within stage 2 and stage 5, individual variation is allowed. A scalability coefficient, which measures the degree to which learners' acquisition orders are consistent with the overall acquisition order determined by the scalability – i.e. including the order within the PT stages – is therefore not of much relevance for the present analysis. Nonetheless, to give the reader a notion of the scalability, we will present the coefficient of reproducibility (CR; see Hatch & Lazaraton 1991 for more complex measures of scalability). Following Rickford (2002), scalability is accepted when the coefficient of reproducibility is .93 or higher.

Emergence

In implicational scaling, an acquisition criterion is set to determine whether an individual participant's score for a grammatical phenomenon indicates that the phenomenon is acquired or not. As explained earlier, PT uses an emergence criterion that looks at the first, systematic use. A challenge for language comprehension research, then, is the development of a psycho-linguistically plausible operationalization of the emergence criterion for language comprehension, since checking for first systematic and productive use is not possible here.

In the ELIAS GT, the seven scores that can be obtained for each grammatical phenomenon (i.e. ranging from 0 out of 6 to 6 out of 6 correct) yield six possible emergence/acquisition criteria: a ≥1/6, ≥2/6, ≥3/6, ≥4/6, ≥5/6 and 6/6. For example, with a ≥3/6 criterion, all scores of 3 out of 6 correct, or better, are considered emerged or acquired. Because PT, for production, does not consider a grammatical structure as acquired when only one or two instances of correct use can be found (Keβler & Liebner 2011), the ≥1/6 and ≥2/6 criteria will not be used in this study either. Since any remaining acquisition criterion involves an arbitrary choice, we use all four remaining criteria: ≥3/6, ≥4/6, ≥5/6 and 6/6.

An important statistical consideration in any multiple choice task is that certain scores will be below chance performance, meaning that the probability that a participant could attain the score by guessing is too high (i.e. >.05) (Howell 2010). In the ELIAS GT we can be certain that a participant was not guessing only when s/he obtained a score of 5 or 6 out of

6 (Table 2). We will nonetheless include the ≥3/6 and ≥4/6 scale in the analysis as they may still yield relevant information concerning general developmental tendencies among the learners.

Table 2. Chance Performance (* = score is above chance performance).

N	number of prompts	6			
π	chance level	0.33			
k	number of correct responses	3	4	5	6
P ≥ k	probability of obtaining score k or higher by chance	.31	.10	.02*	.00*

Results

Cross-sectional study

In the implicational scales in tables 3 to 6 at the end of this section (showing acquisition criteria ≥3/6, ≥4/6, ≥5/6 and 6/6 respectively), a '+' in a column indicates that the participant(s) passed the acquisition criterion for the grammatical phenomenon in question, while a '-' signals that this was not the case. The scales are contracted, meaning that participants who had the same pattern of acquired and non-acquired items are combined into one row. The columns headed by '#ID' give information about the number of participants that showed a particular pattern of acquired and non-acquired items. Deviations from the pattern predicted by PT are between brackets.

The total number of acquired grammatical phenomena decreases as the emergence/acquisition criterion is raised. In the ≥3/6 scale (Table 3), for example, 25 of the 72 participants have passed the acquisition criterion for all grammatical phenomena. This drops to zero participants in the 6/6 scale (Table 6). Thus, the statistical effect of chance performance is not so strong as to distort the general picture emerging from these scales.

The ≥3/6 and ≥4/6 scales both show an overall rank order (top row) that is in accordance with PT: AGRc and AGRv are ranked last (based on the number of participants that have acquired the grammatical phenomena), meaning that overall more participants can process category information than inter-phrasal agreement information. Violations of the PT rank order can be observed at the level of the individual rank order in all three of these scales, e.g. 18 participants show a pattern of pluses and minuses that is not in line with PT in the ≥3/6 and ≥4/6 scale. As mentioned earlier, however, we cannot draw any valid conclusions from these patterns as we cannot rule out that this individual variability is influenced by participants' guessing.

In the ≥5/6 and 6/6 scales, too, the observed rank orders are in line with the rank order predicted by PT, since AGRc and AGRv are ranked last. At a

more detailed level, it can be observed that violations of the PT rank order at the level of the individual participant, though present, are fairly small. In the ≥5/6 scale, only 4 of the 72 participants show a rank order not in accordance with PT: one learner passed the 5/6 threshold for AGRc without yet having done so for GEN and PLU, a second participant had acquired AGRv while not yet having acquired GEN and PLU, a third participant had acquired AGRv while not yet having acquired SVO, GEN and PLU and finally one participant had acquired AGRc while not yet having acquired NEG, GEN and PLU.

Finally, there are no instances of participants having acquired AGRc and/or AGRv without having acquired any of the stage 2 phenomena, indicating that the emergence of stage 5 phenomena never precedes the emergence of stage 2 phenomena altogether. The observed deviations could furthermore be deemed irrelevant, because of PT's claim (or disclaimer) that the theory "does not predict that whatever can be processed will indeed be acquired; Instead the theory predicts that what cannot be processed will not be acquired" (Pienemann, 2005: 40). Thus, the emergence of at least some stage 2 phenomena before the emergence of phenomena from later stages may be sufficient support for PT. Admittedly, this ad hoc solution compromises the falsifiability of PT when taken to extremes. More decisive perhaps are the CRs. The CR is acceptable for the 6/6 scale (CR .93) and borderline acceptable for the ≥5/6 scale (CR .92). Given that the (acceptable) within-stage variation is included in the calculation of this coefficient, both coefficients are in favour of a universal acquisition order in line with PT.

One reflection that cautions against too readily dismissing the deviations from the PT pattern in this study is that no stage 3 or 4 phenomena were included in the analysis. Thus the question arises as to whether the data would still support PT if this had been the case.

Table 3. Implicational scale - acquisition criterion: ≥3/6 correct (CR .86).

#ID	NEG	GEN	SVO	PLU	AGRv	AGRc
25	+	+	+	+	+	+
11	+	+	+	+	-	+
14	+	+	+	+	+	-
(2)	+	+	+	(-)	(+)	(+)
(2)	+	(-)	+	+	(+)	(+)
(1)	+	+	(-)	+	(+)	(+)
2	+	+	+	+	-	-
(3)	+	+	+	(-)	-	(+)
(3)	+	+	+	(-)	(+)	-
(1)	+	+	(-)	+	-	(+)
(1)	+	(-)	(-)	+	(+)	(+)
1	+	+	+	+	-	-
(1)	+	(-)	+	+	-	(+)
1	+	+	+	-	-	-
(1)	+	(-)	(-)	+	-	(+)
(2)	+	+	(-)	(-)	(+)	-
(1)	(-)	+	(-)	(-)	-	(+)

Table 4. Implicational scale - acquisition criterion: ≥4/6 correct (CR .84).

#ID	NEG	GEN	SVO	PLU	AGRv	AGRc
2	+	+	+	+	+	+
10	+	+	+	+	+	-
8	+	+	+	+	-	+
6	+	+	+	+	-	-
(7)	+	+	+	(-)	(+)	-
(3)	+	+	+	(-)	-	(+)
(1)	+	+	(-)	+	-	(+)
13	+	+	+	-	-	-
(2)	+	(-)	(-)	+	(+)	-
3	+	+	-	+	-	-
(3)	+	(-)	+	(-)	-	(+)
1	+	-	+	+	-	-
4	+	+	-	-	-	-
1	-	+	-	+	-	-
1	+	-	-	+	-	-
(1)	-	(-)	(-)	+	(+)	-
4	+	-	-	-	-	-
1	-	-	-	+	-	-
1	-	-	-	-	-	-

Table 5. Implicational scale - acquisition criterion: ≥5/6 correct (CR .92).

#ID	NEG	SVO	GEN	PLU	AGRc	AGRv
2	+	+	+	+	+	-
9	+	+	+	+	-	-
16	+	+	+	-	-	-
3	+	+	-	+	-	-
(1)	+	+	(-)	(-)	(+)	-
(1)	+	+	(-)	(-)	-	(+)
1	-	+	+	+	-	-
14	+	+	-	-	-	-
2	+	-	+	-	-	-
1	+	-	-	+	-	-
(1)	+	(-)	(-)	(-)	-	(+)
2	-	+	+	-	-	-
1	-	+	-	+	-	-
(1)	(-)	+	(-)	(-)	(+)	-
10	+	-	-	-	-	-
1	-	+	-	-	-	-
2	-	-	+	-	-	-
4	-	-	-	-	-	-

Table 6. Implicational scale - acquisition criterion: 6/6 correct (CR .93).

#ID	NEG	SVO	GEN	PLU	AGRc	AGRv
12	+	+	+	-	-	-
2	+	+	-	+	-	-
1	-	+	+	+	-	-
13	+	+	-	-	-	-
2	-	+	-	+	-	-
1	-	-	+	+	-	-
17	+	-	-	-	-	-
8	-	-	-	-	-	-
1	-	-	+	-	-	-
15	-	-	-	-	-	-

Longitudinal study

For the presentation of the longitudinal data, which in the traditional format would consist of 13 tables of implicational scales, an alternative, graphic way of visualizing and summarizing the results was designed, based on Baten (2011). In the set of six squares below (Figure 1), each square represents one of the six targeted grammatical phenomena, with the top row representing the stage 2 features and the bottom row representing the stage 5 features.

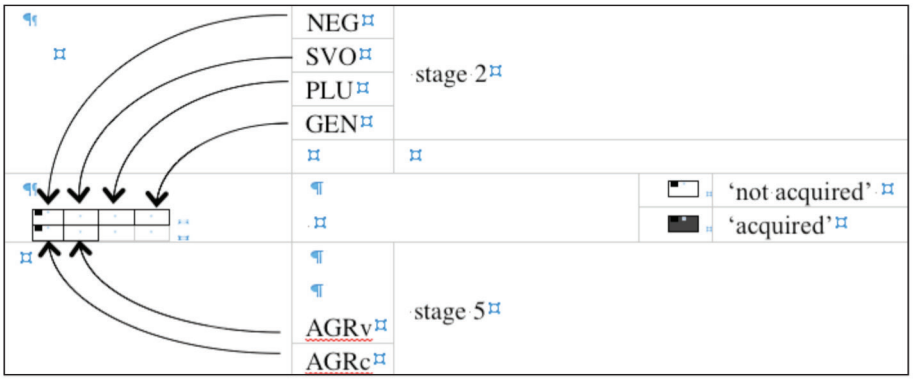

Figure 1. Graphic presentation of longitudinal implicational scales (adapted from Baten 2011).

When a grammatical phenomenon is acquired by a learner (according to the acquisition criterion used), the square representing the grammatical phenomenon is shaded in black.

The figures at the end of this section represent the longitudinal development of the thirteen participants (rows headed by ID1 to ID13) over the four test times (T1, T2, T3 and T4), using the acquisition criteria ≥3/6 (Figure 2), ≥4/6 (Figure 3), ≥5/6 (Figure 4) and ≥6/6 (Figure 5).

In general, the results show that all learners show gradual progress from T1 to T4. This progress is not always linear, however. Several participants show U-shaped behaviour in the sense that they may have passed the acquisition criterion at a certain test time but fail to do so at a later test time. For example, in the ≥3/6 scale, learned ID1 had 'acquired' AGRc at T2 but not at T3.

It is noteworthy that in all four scales, the majority of learners have acquired at least some of the stage 2 phenomena before they reach stage 5. In the ≥5/6 and 6/6 scale there are no exceptions to this developmental tendency. In the ≥4/6 scale, learner ID11 has acquired AGRv at T1 while not yet having acquired the stage 2 phenomena, and in the ≥3/6 scale learner ID8 has acquired AGRc at T1 without having acquired the stage 2 features. These two exceptions aside, the longitudinal data support PT in the sense that the acquisition of stage 5 phenomena never precedes the acquisition of (at least some of the) stage 2 phenomena. Instances in which the learners have not yet acquired all stage 2 phenomena by the time they have acquired stage 5 phenomena are abundant, but these cases need not contradict the applicability of PT to language comprehension.

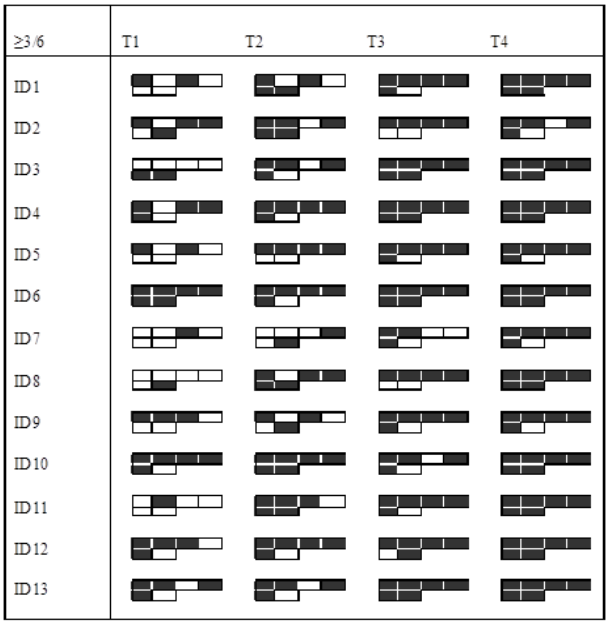

Figure 2. Longitudinal scales, ≥3/6 criterion.

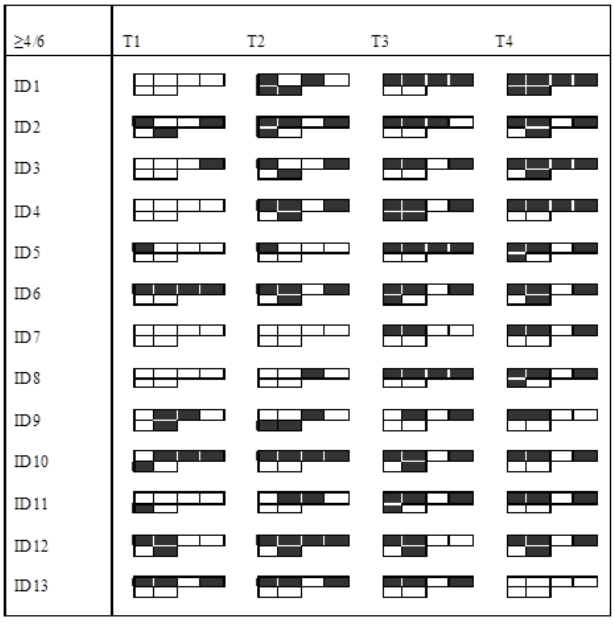

Figure 3. Longitudinal scales, ≥4/6 criterion.

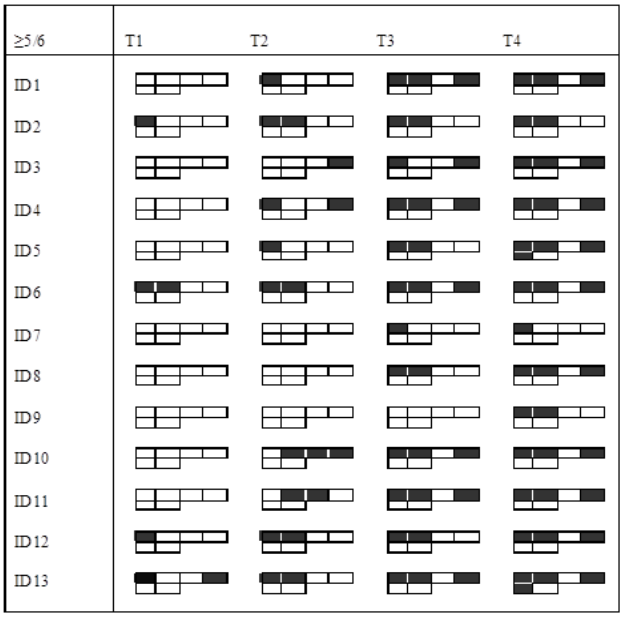

Figure 4. Longitudinal scales, ≥5/6 criterion.

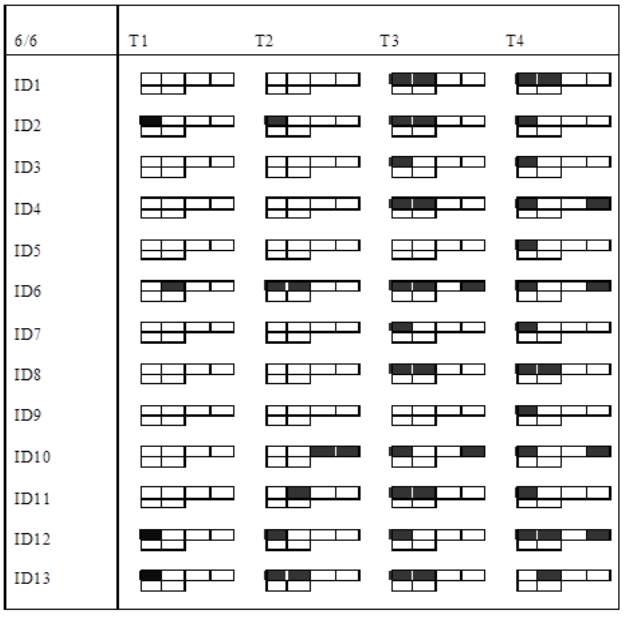

Figure 5. Longitudinal scales, 6/6 criterion.

Summary and conclusion

This paper explored the applicability of PT to receptive grammar acquisition. The data presented on the acquisition of the stage 2 features GEN, NEG, SVO and PLU and the stage 5 features AGRc and AGRv were in line with the general predictions of PT. From a theoretical point of view, this would mean that receptive L2 grammar acquisition is governed by similar processing procedures as productive L2 grammar acquisition – a finding which is relevant not only for PT research, but also for the general domain of language processing, since it means that there must be crucial similarities between receptive an productive processing. More research is needed for a more comprehensive understanding of the processes at work.

Methodologically, this paper identified two issues to be dealt with in PT research on receptive L2 grammar acquisition: the definition and assessment of morphosyntactic processing and feature unification, and the operationalization of emergence. The present, exploratory study has dealt with these issues by using results from a picture selection task and using four different acquisition criteria for the implicational scaling analysis. Further research using alternative research designs and methods is needed to address these issues in more detail.

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Stages of processability and levels of proficiency in the Common European Framework of Reference for Languages

The case of L3 French

Jonas Granfeldt
Malin Ågren

Introduction

The work of Gisela Håkansson has for many years been an important source of inspiration for both of us. In particular her longtime work on L2 Swedish within PT has been decisive for us in previous attempts to discuss L3 French within this framework (Ågren 2008). The present paper is an extension of this work.

The aim of the present paper is to investigate empirically the relationship between *second language proficiency* (L2P) and *second language development* (L2D) in a corpus of written L3 French. Second Language Acquisition (SLA) has traditionally been concerned with describing and understanding L2D, most notably through the study of developmental sequences and stages. Language testers and language testing research are interested in capturing and measuring the broader concept of L2P at a given time. The question concerning a developmental relationship between L2P and L2D is not new and has been answered differently in the past. Within SLA, some researchers view L2D and L2P as separate theoretical constructs (Pienemann & Johnston 1987; Pienemann & Mackey 1992). R. Ellis (2008), for example, calls for attempts to match developmental levels and proficiency levels since he suspects that these two linguistic dimensions might in fact be a comparison of "apples and oranges" (Ellis 2008, note 7). The question we ask in this study is to what extent L2P and L2D develop in parallel in a group of L3 learners of French.

L2P can be defined as "a person's overall competence and ability to perform in L2" (Thomas 1994:330, footnote 1), to which we would like to add "at a given point in time" in order to underline the fluctuating and developmental aspects of L2P. Hulstijn (2011, 2012) has recently suggested a

subdivision of L2P into Basic Language Cognition (BLC) and Higher Language Cognition (HLC). The separation is motivated by the fact that more advanced aspects of L2P can be related to contextual (learning) factors which depend on the individuals' intellectual capacities and degree of formal schooling, rather than on purely linguistic skills. Higher levels of L2P cannot be reached, Hulstijn argues, without formal education. The distinction between BLC and HLC is thus needed in order to separate linguistic and intellectual skills as components of L2P (cf. Cummins, 1980, on a related division). BLC concerns the implicit knowledge and automated use of frequent and basic morphosyntactic constructions and lexical items.

L2P has been operationalized and measured in a variety of ways (see Hulstijn 2011) but there are essentially two broad approaches to measure L2P. On the one hand, the psychometric approach includes standardized tests (i.e. TOEFL, DELF), cloze tests, C-tests etc.[1] On the other hand, the holistic approach relies either on learners' self-rating or behavioral rating scales where expert raters assess L2 performance. In the holistic approach, criterion-referenced scales of language proficiency can be used and expert judges evaluate learner language by applying these scales, independently of target language. Currently, the most prestigious and well-known example is the *Common European Framework of Reference for Languages* (CEFR) which assesses communicative language proficiency. We return to the CEFR below.

Understanding and defining L2D is one of the core topics in SLA research. L2D can tentatively be defined as the progressive growth of one or more aspects of the interlanguage system (phonology, morphology, syntax, etc.). L2D could be viewed as a necessary but not sufficient subcomponent of L2P. It is often described via the definition of developmental sequences, which crucially are thought to be invariable and impermeable with respect to external factors such as learning situation, type of input, etc. An increasing number of different models and theories have been put forward to describe and account for L2D in different learners (Towell & Hawkins 1994; Pienemann 1998, 2005; Sharwood-Smith & Truscott 2005). Models of L2D tend to be language independent and some have also been empirically tested on cross-linguistic data. One well-known and established model of L2D is *Processability Theory* (PT) (Pienemann, 1998; Pienemann & Håkansson 1999) which over the years has been tested on a variety of typologically different languages. We return to PT below.

[1] TOEFL is also known as the Test of English as a Foreign Language. It is designed and administrated by the Educational Testing Service. The DELF test is the French equivalent. DELF is the acronym of Diplôme d'études en langue française. The test is designed and administrated by *Centre international d'études pédagogiques*. A C-test is a specific type of cloze-test used in language testing (Grotjahn, 2010).

The specific aim of the present study is to investigate empirically the possible relationship between CEFR, a model of communicative L2P, and PT, a model of L2D. The rationale is that the relationship between L2P and L2D is debated and needs further attention. With Hulstijn's (2011, 2012) division between BLC and HLC in mind, it seems important to understand at what point in the learners' trajectory L2D and L2P might be more or less associated. A possible hypothesis is that L2P in the BLC range would be closer associated with L2D since both are defined as constructs reflecting implicit knowledge of language and automated use. Moreover, both are independent from contextual and individual factors, such as the degree of formal schooling. Hulstijn criticises the CEFR for not being clear about the relationship between L2P and L2D and says that:

> Any association between CEFR levels of L2P [*L2 Proficiency*] and L2 development as studied in the second language acquisition (SLA) literature would be completely misplaced […], unless empirical studies show evidence in its support. (Hulstijn 2011:241)

The remainder of this paper will be dedicated to a small-scale empirical study which aims to address this challenge.

The Common European Framework of Reference for Languages (CEFR)

The CEFR provides a language-independent description of communicative proficiency at six levels. The levels (A1, A2, B1, B2, C1 and C2) are organised according to three broad proficiency bands: Basic User (A), Independent User (B) and Advanced User (C). The CEFR is action-oriented; language learners are viewed as language users and as social agents who accomplish communicative activities. These activities all involve language in a broad sense and the CEFR describes *what* a learner can do with respect to a specific task at a certain level of communicative proficiency and *how well* s/he can do it.

Table 1. From *Overall written interaction* (Council of Europe, 2001, chapter 4).

CEFR Level	*Descriptor*
B1	Can convey information and ideas on abstract as well as concrete topics, check information and ask about or explain problems with reasonable precision.
A2	Can write short, simple formulaic notes relating to matters in areas of immediate need.

The CEFR encompasses four categories of language activities of this type: reception, production, interaction and mediation.

The scales of the CEFR define linguistic, pragmatic and socio-linguistic competences needed to carry out the activities. In particular chapter 5 presents communicative language competences (cf. Canale & Swain 1980). The way scales are presented in the CEFR could lead one to believe that functional and competence-based scales should be interpreted together. Hence, learners at, say, level A2 with respect to *Overall written interaction* (Council of Europe, 2001:83) should simultaneously be at the same level A2 with respect to competence-based scales in chapter 5, like for example *Vocabulary control* (Council of Europe 2001:112). In his paper, Hulstijn (2007:664) discusses such a "parallel" reading of CEFR functional and competence-based scales from a SLA perspective. At least three types of L2 language users can be identified: a) learners who can do few language tasks but with high linguistic quality, b) learners who can do many language tasks but with low linguistic quality and c) learners whose range of language tasks is parallel to their linguistic ability. Learner types a and b display "uneven profiles" but as a result of the way CEFR presents the scales, only the third learner type is included.[2]

Processability theory

Processability Theory (Pienemann 1998, 2005) is a psycholinguistic theory of SLA which explains developmental sequences in L2 acquisition in terms of language processing. According to this approach learners develop skills needed to process the target language grammar in a highly systematic way. Importantly, grammatical structures can only be produced in the L2 if the necessary processing procedures are available.

The processing hierarchy proposed in Pienemann's original version of PT, illustrated in Table 2, identifies five stages of development based on different levels of information exchanged between constituents (i.e. feature unification). The main idea is that the activation sequence of processing procedures used in *language production* (from 1 to 5 below) is also valid for *language acquisition*, which follows the same implicational order. Starting from stage 1, all subsequent stages of development mirror increasing demands of processing capacity involved in the morphosyntactic operations.

[2] On a single occasion the CEFR recognizes the existence of "uneven profiles" (Council of Europe 2001: 17), i.e. learners who are at different levels of proficiency in different activities, but nothing is said about the frequency or specificities of such learners.

Table 2. Stages of development and processing procedures according to PT (adapted from Pienemann, 1998).

PT stage	*Processing Procedure*	*Information exchange*	*Example of morphol. outcome in French*
5	Subordinate clause procedure	Main– sub. clause	Subjunctive in sub.clause
4	S(entence)procedure	Inter-phrasal	Subject-verb agreement
3	Phrasal procedure	Phrasal	NP agreement
2	Category procedure	No exchange	Lexical morphemes
1	Word or lemma access	Words, chunks	-

According to PT, the notion of storage of grammatical information in memory is crucial to the acquisition process. The further away the source and the target of feature unification, the longer grammatical information needs to be stored in memory, and the later the morphosyntactic structure will be acquired. Therefore, inter-phrasal agreement (stage 4) takes longer time to acquire than phrasal agreement (stage 3). The former asks for exchange of grammatical information over phrasal boundaries (between NP and VP), an operation that involves higher processing procedures, whereas the latter calls for more local information exchange within NP. As illustrated in previous cross-linguistic investigations of PT (see Pienemann 2005) the processing hierarchy affects morphology and syntax differently in various languages due to their different morphosyntactic rule systems. In this study, we focus on how this model applies to the development of morphosyntax in L3 French (Ågren 2008).

Research questions

We have two research questions for the present study:

- RQ1: To what extent is L2P, as measured by the CEFR, and L2D as defined by PT related in a corpus of written L3 French?
- RQ2: How frequent is the presence of uneven profiles in the data?

Data and method

The learners

All participants were pupils at different schools in the city of Lund in southern Sweden recruited through personal contacts with teachers at the schools. Written data were collected from 38 L3 learners of French. 36 of the 38 learners (95%) reported that Swedish was their mother tongue and the language used in the home. The learners were at two different levels: 22 in year 9 (15–16 years old, 59% female) and 16 in their final year of upper-

secondary school (18–19 years old, 69% female). All 38 learners successfully completed both tasks and were rated as being at least at the A1 level.

The tasks

A website was designed to be used for data collection. The students wrote their texts directly on the web page, without any kind of support. A total of 76 L3 French texts were collected (38 x 2) using this procedure. All learners were asked to complete two written communicative tasks. The tasks were adapted from two of the five tasks used by Alanen et al. (2010) in a study of young and adult learners' L2 English and L2 Finnish linked to the CEFR. Task 1 instructed students to write an email message to their French teacher explaining why they had been absent from school and asking for some information on an upcoming French test. The instructions to the older learners in upper-secondary school were similar but slightly more elaborated than those used in year 9 (for further details, see Granfeldt et al. in press). In task 2, students were asked to write a narrative about something nice, funny or special that they had experienced. They were instructed to explain what happened to them and why the event was particularly exciting or memorable. Participants were allowed 40 minutes to complete both tasks. All participants were able to complete the tasks within this time frame.

The CEFR raters

Two experienced CEFR raters were asked to read the texts and provide them with a CEFR score ranging from A1 to C2. As a basis for their assessment, the raters were given a CEFR scale that had been compiled from several of the CEFR scales. The compiled scale consisted of "can-do statements", and accuracy was never mentioned. The raters assessed the texts independently of each other and were asked to do the following: a) rate each text using the CEFR scale (A1, A2, B1, B2, C1 and C2), b) indicate the degree of certainty of each rating on a 4-point scale ranging from "completely certain" to "completely uncertain", and c) to provide an alternative CEFR rating if, and only if, the indicated degree of certainty was low (i.e. "uncertain" or "completely uncertain"). No texts were included in the final analysis where both raters were "completely uncertain" or "uncertain".

The degree of inter-rater agreement between the two raters was measured by Kronbach's alpha. Alpha was measured to .804 which according to DeVellis (1991:85) corresponds to a "very good reliability".

PT-analysis

One of the authors with previous experience of PT read the learner texts and analyzed them according to the PT framework. Since the tasks were adapted to match CEFR criteria, this meant that data density for some structures was low. Therefore, each analysis was evaluated on a 4-point scale according to the degree of certainty of the analysis. Out of the 76 CEFR rated texts, 61

texts contained a sufficient amount and varied set of structures in order to ensure a reasonable PT analysis with a certainty score of 3 or 4. These 61 texts were kept for the final comparison with the CEFR ratings.

Within the PT framework the *emergence criterion* is applied. Emergence refers to the first systematic and productive use of a certain structure, which indicates that the learner, in principle, can carry out a specific grammatical operation. In our PT analysis, the researcher studied the systematic use of certain structures based on three sources of available evidence in each learner text: 1) minimal pairs, 2) creative constructions (i.e. overuse of a grammatical rule), and 3) a certain amount of lexical variation in the use of a particular structure (e.g. the same morpheme used with a range of different lexemes). In the PT analysis, at least two minimal pairs *or* two creative constructions *or* three varied lexical items within a morphological pattern were required in order to identify a specific developmental stage (cf. Ågren 2008; Pallotti 2007; Pienemann 1998).

Results

In Figure 1 below, CEFR ratings of the 61 texts are plotted against the analysed PT-stage. Each learner text is represented by a circle in the figure. Since inter-rater agreement was estimated to be sufficiently high (see above), a single CEFR score for each text was computed by calculating a mean score from the two CEFR ratings. We observe that, overall, there is a linear correlation between the CEFR level and the PT stage.

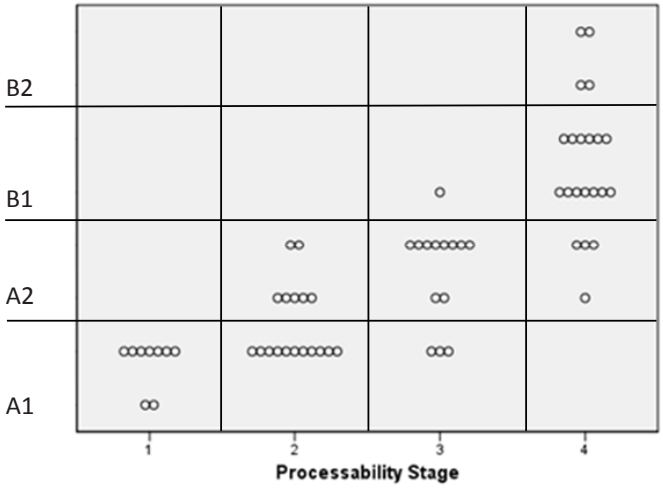

Figure 1. Correlation of CEFR rating and PT developmental stage.

The CEFR ratings cover four levels and range from A1 to B2. Texts that are plotted between two CEFR-levels have been rated differently by the two

raters. For example, a text which is plotted between A1 and A2 has been rated A1 by one rater and A2 by the other rater.

The results with respect to PT also cover four stages and range from PT stage 1 to stage 4. We observe that there is an increasing amount of variation in the relationship between the CEFR level and the analysed PT stage. According to the results in this small-scale pilot study, PT stages 1 and 2 are associated with CEFR levels A1 and A2. Interestingly, the dispersion increases at more advanced stages and PT stage 4 contain texts that have been rated from A2 (1 text) up to above B2 (2 texts). We also observe that, with a single exception, no text rated below B1 was analysed as PT stage 4.

To answer our first research question, we statistically investigated the strength of the association between the rated CEFR score (the mean) and the analysed PT stage using a Spearman rank order correlation analysis. The results indicate a very strong association between the average rated CEFR level and the analysed PT stage, ($rs[62] = .86$, $p<0.001$).

In the remainder of this section we will address the second research question, namely the presence and frequency of uneven profiles.

For the purpose of this study we define a balanced profile as a text which follows the main linear trend expressed in Figure 1. These are texts where communicative proficiency (L2P), measured by CEFR, and morphosyntactic development (L2D), measured by PT, go hand in hand (cf. "flat profile", Council of Europe, 2001:43). We observe that balanced profiles seem to be dominant at lower levels and stages, which is not very surprising due to the limited command of the L2/L3 at these stages. Example (1) below illustrates a balanced profile at a more advanced level, where utterances are linked into a clear and coherent narrative (CEFR, level B2) and where the morpho-syntactic procedures at PT stage 4 have emerged (see phrasal agreement, stage 3, in solid underlining; interphrasal agreement, stage 4, in dashed underlining).

(1) JL text 2: CEFR level B2 (both raters), PT stage 4

Il y a quelques semaines, je suis allée visiter une amie qui habite à Göteborg. En même temps, il y avait aussi ma meilleure amie de Lund qui allait visiter son amie à Göteborg. Nous, toutes les deux, sont donc allées en train pour Göteborg. En sortant du train à la gare de Göteborg, j'ai vu mon amie et on s'embrassées. Ma meilleure amie, elle a aussi rencontré son amie. Soudain, ma copine regarde la copine de ma meilleure amie et elle reçoît un regard étonné. En fait, la copine de ma meilleure amie et ma copine de Göteborg étaient camarades de classe. Quand on a toutes compris cette coincidence sensationelle on s'est mises à rire...

However, it is not always the case that high/low communicative proficiency correlates with high/low morphosyntactic development. Texts showing uneven profiles appear as outliers in Figure 1. For instance, as exemplified in

(2), the learner ES's text was judged by both CEFR raters as belonging to level B1, where the learner is able to write accounts of experiences, describing feelings and reactions in simple connected text and link series of discrete elements into a connected, linear sequence of points. Indeed, ES is telling a rather straightforward narrative, where events from the past and the present are linked by the use of different tenses (imperfect and present tense), adverbials (*ne…jamais, la première fois, chaque fois*…) and pronominal reference (*la chanson... je l'ecoutais*). In Figure 1, CEFR B1 and B1+ and PT Stage 4 are closely associated. However, the PT analysis of ES' texts indicates stage 3, because the use of subject-verb agreement was not consistent enough to indicate availability of processing mechanisms at PT stage 4 (phrasal agreement in solid underlining has emerged, interphrasal agreement in dashed underlining is questionable). Thus, the communicative skills expressed in (2) seem to be more advanced than what could perhaps be expected given the stage of development.

(2) ES text 2: CEFR level B1 (both raters), PT stage 3

Je ne oblie jamais le premiere fois que je ecoutais à Edith Piaf. J'avait 12 ans et la musique en français etait très beau et je commencait de pleurer. C'est la première fois que je comprennait que je veux lire la français à l'école. La chanson etais "Paris" et c'est encore ma chanson favorie en français. Chaque fois j'ecoute la chanson je pense que la première fois que je l'ecoutais. C'est une memoire très forte...

Other texts, as exemplified in (3), show the opposite pattern where the level of morphosyntactic development was analysed at PT stage 4 (consistent subject-verb agreement) whereas the communicative proficiency was rated at a somewhat lower level (A2/B1) than could be expected (cf. the trend in Figure 1).

(3) TA text 2, CEFR level B1/A2, PT stage 4

Je vais me souvenir toujours de ce jour lorsque moi et mes soeurs étions avec vos amis à notre maison au bord de la mer. Là, il y a beaucoup de vaches. Un jour nous avez oublié le collier de notre chien dans un endroit où il y a des vaches. Quand nous sommes allées le chercher il y a telle de vaches dans cet endroit. Nous pensions que cela était très intéressant. Ma petite soeur voulait monter qu'elle n'avait rien peur et elle était allé proche d'un vache. Alors la mère de cette vache était furieux et commençait à courir après nous. Nous ayons couru en pleurant. Je n'ai jamais couru si vite... Donc tout allait bien et maintenant c'est plutôt un bon souvenir.

Even though uneven profiles are present in the text sample examined in this study, we conclude that the majority of texts show rather homogeneous profiles, where L2P and L2D point in the same direction.

Summary

The present small-scale study aimed at investigating a possible relationship between second language proficiency (L2P) and second language development (L2D) in a corpus of L3 written French. The learners were Swedish secondary students. The learner texts were assessed according to the CEFR by two experienced CEFR raters, measuring communicative L2P. The same texts were analysed according to Processability Theory, which is a theory of L2D. We found a strong overall correlation between the CEFR ratings and the PT analysis ($r_s[62] = .86$, $p<0.001$). We want to underline, however, that the observed correlation cannot in any way be taken as evidence that the underlying constructs are related.

In addition, we observed that the existence of uneven profiles in the data, i.e. learners with stronger communicative proficiency than morphosyntactic development or vice versa, typically becomes more frequent at more advanced stages. Up to CEFR B1 and PT stage 3, learners' communicative proficiency and morphosyntactic development seem to develop more or less at the same rate. This preliminary finding is potentially interesting in the view of L2P as divided between BLC and HLC (Hulstijn 2012). If BLC reflects implicit knowledge and automated language use, it actually comes a bit closer to the definition of L2D used in PT, which, in turn, could explain the better fit between CEFR and PT at lower levels and stages, as indicated in Figure 1. Future research will have to investigate this association in more detail.

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So you think gestures are compensatory?

Reflections based on child and adult learner data[3]

Marianne Gullberg

Introduction

When I told Gisela that I wanted to examine how adult second language (L2) speakers used gestures as communication strategies in my doctoral dissertation, I remember her swallowing hard, then smiling and cheerfully saying *How exciting!* I thought it fitting to honour her by revisiting the can of worms I opened then, and take a new look at the question of whether, and if so how, gestures can be said to be compensatory.

In a seminal paper from 1985 entitled *So you think gestures are non-verbal?* David McNeill challenged the then dominant view of gestures as a communicative frill of no consequence to our understanding of language and linguistic processing (McNeill 1985). The paper listed arguments for why gestures are in fact verbal (i.e. linguistic), highlighting their close relationship with spoken language. Some 30 years later, this position has become well established. Evidence continues to accumulate for the close connection between gesture and language in language development, break-down, in processing, etc. Although the link itself is no longer questioned, the exact nature of the relationship and the reasons for why we gesture remain illusive.

It is a common lay assumption that speakers in expressive trouble use hand and foot solutions to resolve them. Gestures – particularly representational or referential gestures which convey meaning about a referent (e.g. size, shape, etc.) – are seen as a compensatory tool to bridge the gap between communicative intention and available expressive means. This view is also common in research targeting language users who are "challenged" or "less competent". It is explicit in studies of adult second language acquisition and

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bilingualism (e.g. Nicoladis, Pika & Marentette 2009). It is also implicit in many studies of child language acquisition, where gestures are viewed as precursors to language in infants (Bates 1979; Liszkowski 2008), or as markers of transitional knowledge states in older children (Goldin-Meadow & Butcher 2003). It is also found in studies of atypically developing, or impaired populations (e.g. children with specific language impairment (SLI), or Down syndrome), and patients with aphasia (Blake, Myszczyszyn, Jokel & Bebiroglu 2008; Fex & Månsson 1998; Goodwin 2000; Rose 2006; Stefanini, Recchia & Caselli 2008).

It is not an unreasonable notion. A linguistic compensatory device needs to have certain properties. First, it needs to have expressive power and rich semiotic affordances. Gestures do. Although gestures are not themselves language, they can carry the full expressive burden as seen in so-called *home sign*, the conventionalised gesture systems developed by isolated deaf children (Goldin-Meadow 2003; Senghas, Kita & Özyürek 2004), and the ease with which speakers can express propositional content in gesture alone (Singleton, Goldin-Meadow & McNeill 1995).

Second, a linguistic compensatory device needs to be tightly linked to language. Gestures are. All current theories of gesture see language and gestures as linked, forming an integrated whole that is planned and processed together in comprehension, production, and development (Clark 1996; Kendon 2004; McNeill 1992, 2005). Even if the precise nature of the relationship is under debate, the link itself is undisputed (De Ruiter 2007; Kendon 2004; Kita & Özyürek 2003; Krauss, Chen & Gottesman 2000; McNeill 1985). Third, a compensatory device should be relevant to addressees. Gestures are. There is a large body of behavioural and neurocognitive evidence that addressees attend to, and integrate gesture information as part of their linguistic processing (Gullberg & Kita 2009; Hostetter 2011; Kelly, Özyürek & Maris 2010; Willems, Özyürek & Hagoort 2007).

Gestures thus seem to fit the bill and to have all the necessary properties for a compensatory device. The question remains whether compensatory needs drive their production and use. The assumptions regarding compensation make a number of predictions. In this chapter I discuss two of them, confronting them with some empirical facts. The first one is the notion that gestures replace speech in communicative trouble. The second is that gestures are used to convey additional meaning relative to speech when speech is deficient.

Do gestures replace speech?

One of McNeill's arguments for why gestures are verbal (linguistic) was the tight co-production of the modalities. He claimed that when speech stops,

gesture stops too. Yet, it is a common lay and professional assumption that gestures replace speech: when speech stops, gesture starts. That is, if you do not know the word for, say, *key,* you perform a gesture in silence pretending to manipulate a key to open a door. Interestingly, this view is also found in some of the theories on the speech-gesture relationship. The Lexical Retrieval Hypothesis, for example, considers gesture production to be driven by lexical retrieval difficulties (Krauss et al. 2000). Gestures are thought to activate lexical forms (of content words) through cross-modal priming of motor patterns. Some L2 studies draw on this theory to explain why L2 speakers typically have higher gesture rates than native speakers, suggesting that L2 speakers gesture to activate lexical forms (e.g. Nicoladis et al. 2009). Other theories see gestures as facilitating the selection and linearization of information for expression in speech (information packaging) where gestures help speakers spatially explore their options (Kita 2000). Both sets of theories predict that, if gestures are to facilitate lexical retrieval or formulation, they should predominantly occur with disfluencies and in silence: when speech stops, gesture starts.

However, there is some evidence that, contrary to these predictions, gestures and speech stop together. For example, adult stutterers' gestures tend to stop with speech disruption and to resume when speech becomes fluent again (Mayberry & Jaques 2000). In normal speakers, gestures stop some 200 ms before speech does, suggesting a tight integration in production planning (Seyfeddinipur 2006). Adult L2 speakers of French and Swedish produce significantly more strategic gestures that are complementary to speech (i.e. occur with speech) than substitutive (i.e. occur in silence; Gullberg 1998).

Preliminary results from an ongoing study of fluent and disfluent narrative speech in normally developing monolingual children (age 4, 6 and 9), native and non-native adult speakers of different languages suggest that all groups display the same patterns (Graziano & Gullberg 2010). Examining intra-clausal disfluencies (filled and unfilled pauses, interruption, repetition, lengthening, self-correction, and combinations), we find that gestural strokes (i.e. the most meaningful parts of gestural movements, Kendon 1980) overall occur with fluent rather than disfluent speech in all groups.

In (1), an adult Dutch L2 speaker of French switches into English when in trouble. During the disfluency (*they ehm eh eh*) the ongoing gesture stroke is suspended in mid-air with immobile hands, despite three long pauses. As she resumes fluent speech, saying *they can sit on both sides*, both hands start moving up and down as she indicates a seesaw in a representational gesture. During the disfluent phase, her hands do nothing. In (2), a native Dutch speaker produces a gesture outlining a square shape as he says *met z'n handen* 'with his hands'. He abandons it as he produces a filled pause. In the long silence that follows, there is no gesture. Only when he resumes speech saying *de dossierkast open doet* 'opens the filing cabinet' does he produce a

gesture as if pulling out a drawer. In example (3), finally, an Italian child aged 6 starts a gesture preparation as she says *ci faceva* 's/he made'. She then becomes disfluent and she suspends into a hold when she repeats the determiner *una*. She then drops her hands entirely as she says *mh* 'hm'. In all speakers, thus, gestures stop when speech stops. Disfluencies, whether filled or silent, are typically accompanied by nothing or by suspended gestures. When speech resumes, gestures resume too.

(1) *[they ehm <1.9 s> eh <1.6 s> eh <2.2 s> they can sit on both sides]*[4] (subject D17L2)

(2) *nou als die als die zeg maar eh met z'n [met z'n handen] eh <3.7 s> de dossierkast open doet* (subject D05L1)

'well as he as he kind of uh with his with his hands uh <3.7 s> opens the filing cabinet'

(3) *mh ci faceva [una una] mh* (Graziano & Gullberg 2010)

'mh [s/he] made [a a] mh'

Interestingly, when gestures *are* completed during disfluencies, they are not representational gestures related to the content of the word sought. Instead, such gestures (called *pragmatic gestures* by Kendon (2004), *conduit gestures* by McNeill (1985), and *thinking gestures* by Gullberg (2011b)) comment on the breakdown itself but do not reflect properties of the sought referential expression. In (4), a Dutch L2 speaker of French performs a wrist circling movement during the filled pause and then throughout the silent pause that follows. The gesture indicates an on-going word search but nothing about the content sought.

(4) *il est eh eh[m <1.21 s>]* (subject D21L2)

he is uh uh[m <1.21 s>]

These findings all support McNeill's original claim that gestures and speech form an integrated system that is co-produced. The results do *not* tally with assumptions of gestures replacing lexical items in silence. The answer to the question of whether gestures compensate for speech by replacing it cannot be "yes" – at least not in a simplistic sense.

[4] Gestural strokes are indicated in square brackets; gestural holds, that is, gestures that have stopped in mid-air, are indicated by underlining. Pauses are indicated in pointy brackets with duration given in seconds.

Do gestures replace lexical content?

Another common set of assumptions concern the semantic connection between speech and gestures and cross-modal co-expressivity. A first assumption is that (representational) gestures compensate for lexis. A second, related assumption is that gestures are (therefore) non-redundant with speech, and convey additional meaning. Both of these assumptions raise questions. McNeill claimed that gestures and speech form an integrated mode of expression, characterised by semantic-pragmatic and temporal coordination or co-expressivity. Note that co-expressive cannot mean identical (cf. De Ruiter 2007; McNeill 1985). Since gestures convey information in a different format from speech, they clearly provide information that may not be expressed in speech such as size, speed, direction, and so on. Nevertheless, analyses of co-expressivity that focus on specific semantic components often find remarkable overlap across the modalities.

The domain of caused and voluntary (translocational) motion has been well examined in this regard. For example, the semantics of placement verbs (e.g. to *put* a cup on a table) differ dramatically cross-linguistically (e.g. papers in Kopecka & Narasimhan 2012). Native speakers of different languages gesture differently when talking about placement depending on the semantics of their placement verbs (Gullberg 2009, 2011a). For example, English speakers saying *put* generally gesture only about the path of the movement reflecting verb semantics 'cause to move to another location' (Gullberg, 2009). In contrast, Dutch speakers, who must use one of two verbs (*zetten* 'set' vs. *leggen* 'lay') depending on the properties of the object being placed, produce gestures with hand shapes incorporating the object with the path of the movement, reflecting the more complex semantics of these verbs, 'cause a particular object to move to a location such that it ends up in position X' (Gullberg, 2011a). Adult native speakers thus focus on the same information both in speech and gesture. Crucially, English speakers do not gesture about objects when the verb does not refer to them. Speech and gestures are co-expressive.

Although the two Dutch verbs are obligatory and frequent in the input, Dutch children have difficulties with them even at age five (Narasimhan & Gullberg 2011) using only one of them, *leggen*, for all situations. Interestingly, children using only one verb gesture only about path in non-adultlike ways. In contrast, children who use both verbs, *zetten* and *leggen*, also produce gestures that incorporate the object with the path, as do Dutch adults (Gullberg & Narasimhan 2010). In other words, when children distinguish verbs based on objects, they gesture about objects. When they do not, they gesture only about paths. Crucially, there is no evidence that children who use only one verb express object information in gesture instead of in speech. They do not seem to compensate for linguistic problems in

gesture. The object simply is not relevant to them. Speech and gestures are co-expressive even if not adult-like.

Similarly, adult English learners of L2 Dutch have difficulties acquiring the two Dutch verbs. Like Dutch children they use only one of the verbs for all placement scenes, or dummy verbs like *doen* 'do' or intransitive constructions. Their gestures typically look English in that they gesture about path but not about objects. That is, their path gestures indicate that their Dutch forms mean something like 'cause to move to another location', just like *put*. Arguably, speech and gestures are co-expressive. Gestures very rarely add the object information absent from speech (Gullberg 2009). Again, there is little evidence that adult L2 speakers compensate for semantic shortcomings in gesture. The object simply is not relevant to them.

Studies of voluntary motion where the semantic components examined are path vs. manner of motion show much the same patterns both in children (e.g., Hickmann, Hendriks & Gullberg 2011) and in adult L2 speakers (e.g. Stam 2006).

The overall findings suggest that speech and gestures in child (age 3;6 onwards) and adult learners are mainly co-expressive. These results support the claims in the literature about speech and gesture as an integrated system. Crucially, the data strongly suggest that to "compensate" and express additional semantic information in gesture, you need to know that it is relevant (cf. Gullberg 2011b). Again, the answer to the question of whether gestures compensate for absent meaning in speech cannot be "yes" – at least not in a simplistic sense.

Do gestures never compensate?

Does all this mean that gestures are never used as a compensatory device? Of course not. Gestures *can* be recruited to solve linguistic problems. When we examine cases of expressive problems in adult L2 speakers, identified by clusters of behavioural cues (hesitations, repetitions, slow articulation, or overt appeal for help), following Faerch & Kasper (1983), we find that different problems come with different gestural solutions (Gullberg 1998, 2011b). Lexical difficulties are often resolved jointly between learners and native speakers (NSs).

In (5), a Dutch L2 speaker of French tries to express *peindre* 'to paint' by saying *couloir son maison*, an approximation of 'colour his house'. She also performs a painting gesture that then goes into a hold. It is held while the NS uses an echo question, and is then repeated when the learner repeats *couloir*. It is then held again while the NS suggests *peindre* 'to paint' while also performing a painting gesture. It is only at the NS's second attempt that the learner accepts *peindre*, at which point she finally drops her hands.

(5)	L2: *il veut [couloir son maison*	'he wants [colour his house'
	NS: *il veut*	'he wants'
	L2: *eh couloir son eh*	'uh colour his uh'
	NS: [*peindre]*	[paint]
	L2: *une autre cou* <...>	another col <…>
	NS: *[peindre]*	[paint]
	L2: *oui] peindre*	yes] paint

Learners thus typically attempt a spoken solution accompanied by a representational gesture which is held while the NS provides lexical suggestions. NSs often repeat the learners' gestures as they offer solutions. When the learner accepts and integrates an offered solution, the gestural hold is released and the initial gesture is repeated, often in unison with the NS. These types of solutions are also attested in classroom interaction (e.g. Lazaraton 2004), and between aphasic patients and care givers (e.g. Goodwin 2000).

Grammatical difficulties are more complex than solutions to lexical problems. They often involve the use of space for the creation of abstract representations of discourse which serve as scaffolding for potential disambiguation (Gullberg 2006). They typically draw little overt attention from NSs during the moments of difficulty but are exploited in clarification sequences. Problems with the interaction itself arising from multiple disfluencies also need to be managed. We have already seen how pragmatic gestures with wrist circling movement (*the thinking gesture)* can be deployed to stall during a word search (example (4)). These are often accompanied by withdrawn gaze. Gestures in silence serve as effective floor holders, managing turn-taking.

In general then, gestures can compensate, but with important qualifications. First, gestures do not compensate for lexis in silence – they accompany spoken approximations and are involved in interactive solutions. Gestures also compensate for grammatical and interactive difficulties. Gestural compensatory behaviour is also subject to individual variation in individual communicative styles (Gullberg 1998).

Despite the widespread assumption that children also use gestures to solve (lexical) problems, there is virtually no evidence of such child behaviour. Children with SLI and Down syndrome display increased numbers of representational gestures in naming tasks (Fex & Månsson 1998; Stefanini et al. 2008), but we know little about the exact details of the temporal relationship between speech and lexical representations in these studies. Children also use deictic expressions such as *like that* which clearly refer directly to an accompanying gesture. However, they do not seem to serve as gestural compensation. Examples (6) and (7) from French and English indicate that children use deictic expressions and gesture with the

appropriate lexical material, *grimper* 'climb up' in French and *hop* in English.

(6) *Elle a [grimpé comme ça]*

'She [climb.ed.up like that]'. [both hands performing repeated grasping movements while moving upwards]

(7) *He was [hopping like that*] [moving whole body up and down on chair]
(both examples from Hickmann, et al. 2011: 149)

Again, this does not look like compensation. Such observations raise the possibility that only mature speakers engage in gestural compensatory behaviour. At the very least, it is not straightforwardly evident in children.

Are gestures compensatory? Yes and no

Returning to the initial question, are gestures compensatory, the annoying answer seems to be yes and no. Speakers can and do recruit gestures to compensate for linguistic shortcomings, but not all gestures are compensatory, not even in language learners. Predictions about gesture production in silence are not borne out and analyses of co-expressivity point to general overlap in meaning. Although McNeill was essentially right when he said that when speech stops, so does gesture, the speech-gesture link is not automatic and compulsory. As seen in adult compensatory behaviour, it can be decoupled and achieved (De Ruiter 2007; Kendon 2004; Schegloff 1984). Individuals may choose not to gesture at all. Adult L2 speakers may choose to tackle a lexical problem by focusing on content or on pragmatic aspects of interaction. It requires pragmatic interactive skills to do the latter which children may not have. Fundamentally, you need to know that information is missing in order to compensate for it.

Compensation as a notion remains surprisingly ill- or undefined (cf. Gullberg, de Bot, & Volterra 2008). The nature of the relationship between speech and gesture is multifaceted and depends on the speaker, the developmental stage, and the type of problem. A more nuanced view of the notion of compensation is therefore (still) required, and underlying assumptions need to be made explicit. We need to consider how and when gestures are compensatory, and whether there are independent criteria to define them as such. And it is important to do so. The notion of compensation raises theoretical challenges for everyone, acquisitionists and gesture scholars alike. Only if we improve on definitions and criteria can we reshape models currently built on adult, native, mature speakers to include learners. And only then can we gain a better understanding of the role of gesture in language development, and of the intricate relationship between speech and gesture in general.

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Parallel grammars

On being separated by a common language

Arthur Holmer

Introduction

First language acquisition is generally understood as a process whereby a learner is exposed to language input and on the basis of this data formulates a set of hypotheses which eventually develop into the native grammar of the speaker. One important consequence of this concerns the nature of the shared grammar of two speakers within a given speech community: while it is clear that their grammars must be capable of producing output which is similar enough, we have no guarantee that the grammars are built up in the same way. Strictly speaking, the internal grammar of a given speaker of a language is (or could be) unique: we have no way of assessing in which ways the grammar of one speaker is wired differently from that of another speaker, as long as the output they produce is identical.

In this sense, each instance of language acquisition is a potential opportunity for mutation to occur. What, then, prevents the grammar of a given language from spontaneously mutating into another grammar? One obvious candidate is the sheer body of output/input. The fidelity of the reproduction is a direct consequence of the amount and quality of input data available. Thus, while output->input may be a fairly efficient way of transferring a core grammar (i.e. structures highly frequent in the input), once we get outside this domain, the limits of what is marginal and ungrammatical may mutate spontaneously.

When this occurs on a large scale, the process is referred to as reanalysis, a major factor in language change. One dramatic example is the word order pattern of Tongan and Niuean (Otsuka 2005, see also Massam 2005), where almost identical bodies of data (the two languages being more or less mutually comprehensible) are analysed by dramatically different syntactic mechanisms on the basis of certain properties of adjectives within the object NP.

Another, possibly more striking, such example is the reanalysis of the common Kartvelian split-ergative case alignment pattern (e.g. that found in Georgian) into a fully accusative pattern in Megrelian and a fully ergative

pattern in Laz, despite the fact that these two variants are mutually intelligible dialects often classified under a single language. This is discussed in detail in Harris (1985), cf. Holmer & Vamling (in preparation) for an account of the actual process of reanalysis.

Further, given the importance of input data, it also follows that minority languages which are under great pressure from outside, and which are not used as the everyday means of communication in most domains of their society, would also be more likely to undergo spontaneous mutation and thereby diachronic change. We will see evidence of this in the next section.

First, however, let us examine a case where parallel grammars are affecting the margins of grammaticality: word order acceptability judgments in Swedish subordinate clauses without complementizers.

Parallel grammars

Subordinator omission in Swedish

In Swedish, as in the other mainland Scandinavian languages, subordinate clauses differ from main clauses in having a recognizable word order pattern. Thus, while main clauses display verb-second ordering, and (crucially here) with the verb preceding any sentence adverbs (1a), subordinate clauses (prescriptively at least) do not allow V2 and display an ordering with the verb preceding any sentence adverbs (1b, c).

(1) a. *Josefin vill inte köpa boken.*
Josefin wants NEG buy book.DET[5]
'Josefin doesn't want to buy the book.'

b. *Jag tror att Josefin inte vill köpa boken.*
1S believe COMP Josefin NEG wants buy book.DET
'I believe Josefin doesn't want to buy the book.'

c. **Jag tror att Josefin vill inte köpa boken.*
1S believe COMP Josefin wants NEG buy book.DET

[5] Abbreviations used in this paper are the following. ACC=accusative; AUX=auxiliary; COMP=complementizer; DEM=demonstrative; DET=determiner; E=ergative; GEN=genitive; LF=Locative Focus (or Locative voice); LOC=locative; M=masculine; F=feminine; NEG=negation; NOM=nominative; PF=Patient Focus (or Patient voice); PRF=perfective; PST=past tense; REL=relativizer; S=singular. Further, common conventions used include: * = ungrammatical; and % = acceptable for some speakers.

The next salient fact about Swedish word order is that the complementizer *att* can readily be omitted, with no grammaticality consequences (2). All speakers of Swedish agree that example (2) is fully acceptable.

(2) *Jag tror Josefin vill köpa böcker.*
1S think Josefin wants buy books
'I think that Josefin wants to buy books.'

It is when these two facts are combined that an interesting phenomenon occurs. In (2), the bridge verb *tror* 'believes' is followed by a string which linearly speaking could be either a main clause or a subordinate clause. Since there is no sentence adverb, we cannot decide which structure the string actually has. However, if we insert a sentence adverb, such as the negation *inte* 'not', the situation changes dramatically. Neither order is fully acceptable to all speakers (3a, b). When asked to negate an example like (2), many speakers spontaneously offer (3c) as an alternative, where the negation is realized in the matrix clause instead of in the embedded clause.

(3) a. %*Jag tror [Josefin inte vill köpa böcker].*
1S think Josefin NEG wants buy books
'I think that Josefin doesn't want to buy books.'

b. %*Jag tror [Josefin vill inte köpa böcker].*
1S think Josefin wants NEG buy books
'I think that Josefin doesn't want to buy books.'

c. *Jag tror inte [Josefin vill köpa böcker].*
1S think NEG Josefin wants buy books
'I think that Josefin doesn't want to buy books.'

It should be noted that neither (3a) nor (3b) are sharply ungrammatical. Rather, both can be characterized as awkward. In a study conducted in 2003 (results published in Holmer 2006) the following acceptability percentages were recorded (4). Notice that while both the negation and the adverb *ofta* 'often' have similar effects, the percentages are not the same. In particular the acceptability of embedded main clause word order with *ofta* is significantly higher than with the negation (presumably because the alternative, raising the adverbial to the matrix clause, is not available for 'often' as it is for the negation).

(4)

Subordinate clause cues:	NEG-V	83%
	ofta-V	86%
Main clause cues:	V-NEG	46%
	V-ofta	69%

This varying degree of acceptability can be accounted for by positing that each speaker has a different grammar. Given that the input on which acquisition of negated subordinate clauses is based most commonly consists of clauses with an overt subordinator, and with matrix negation (3c) as a viable alternative, it follows that the learner can derive two conflicting grammars from this data. These are exemplified in (5).

(5) a. postverbal COMP *att* can be freely realized as Ø
b. omission of *att* is a signal of main clause status

Both of these alternatives are equally compatible with the input data. For speakers applying (5a), example (2) above is a subordinate clause which happens to have a Ø-complementizer which is a variant of *att*. In contrast, for speakers applying (5b), example (2) is structurally speaking a main clause which happens to be used in an embedded context. Naturally, speakers of each variant will have a certain degree of tolerance towards the other variant, explaining why the total sum of both orders exceeds 100%.

Furthermore, both of these alternatives are reasonable guesses, given the input: alternative (5a) is the simplest, but alternative (5b) could easily be an overgeneralization from omission of *om* 'if' in asyndetic conditionals (cf. 6a, b), which force the embedded verb to raise to pre-subject position (or, structurally speaking, to C°[6], as would be the case in a main clause).

(6) a. *Om* *du* *sjunger* *så* *går* *jag*.
if 2S sing then go 1S
'If you sing, then I'll leave.'

b. *Sjunger* *du* *så* *går* *jag*.
sing 2S then leave 1S
'If you sing, then I'll leave.'

Further, the grammar of (5b) is exactly that found in German. If the complementizer *dass* 'that' is omitted, the result is obligatory main clause word order (7a – b).

(7) a. *Ich* *glaube* **(dass)* *er* *krank* *ist*.
1S believe COMP 3S.M sick is
'I believe that he is sick.'

b. *Ich* *glaube* *er* *ist* *krank*.
1S believe 3S.M is sick
'I believe that he is sick.'

[6] i.e. the structural position of complementizer head, which is reserved for subordinators in subordinate clauses, but is generallly seen (in cartographic gererative analyses) as being the landing site of the finite verb in verb-second constructions.

Although both (5a) and (5b) are equally natural guesses from the input data, and are compatible with the same data in most common situations, they make conflicting predictions when it comes to negated embedded contexts with *att*-omission. And it is exactly in these cases where intuitions diverge.

These divergent intuitions are clear evidence that the internal grammars of Swedish speakers can differ with respect to the omission of *att*. At the same time, we are clearly dealing with a single speech community (there is no dialectal or generational patterning in the variation). Crucially, in most cases, except the easily avoidable constructions in (3a, b), the output of each grammar is fully compatible with the output of the other, and therefore the unity of the interpersonal grammar of Swedish is preserved despite the underlying differences.

It cannot be excluded that the variation represents a temporary instability which may be resolved over time, with one grammar becoming entirely dominant over the other. However, we have no evidence that this is the case. What we do see is a synchronic state of affairs with a functioning shared grammar based on (at least) two different internal grammars. As far as we can know, this may well be the norm. It will be shown in what follows that such variation can also, given the right conditions, migrate from the margins of grammaticality to the core of the grammar. This is the case in Seediq.

Prenominal relativization in Seediq

Tgdaya Seediq is an Austronesian language spoken in the mountains of north-central Taiwan. The data discussed here comes from recordings and interviews conducted in the village of Gluban (清流 Chingliu in Chinese) in the Kuohsing valley north of Puli. Like most other aboriginal languages of Taiwan (henceforth referred to as Formosan languages), Seediq is verb-initial, displaying VOS order with full NP arguments. As is to be expected from a verb-initial language, the unmarked relativization pattern is N-Rel (8a). Nevertheless, this is not the only pattern. Seediq also has an alternative word order pattern where the relative clause is split across the N, with the verb preceding the N, while the remainder of the relative clause follows the noun (8b). This construction is mentioned by Zhang (2000) and discussed by Aldridge (2004), both referring to it as a head-internal relativization construction. Finally, a third construction (Rel-N) is also to be found, but this construction is not accepted by all speakers (8c).

(8) a. *Wada=mu sbet-un ka huling.*
AUX=1S.E beat-PF NOM dog
[t-n-bug-an=na Watan].
<PST>rear-LF=3S.E Watan
'I beat the dog which Watan bred.'

b. *Wada=mu* *sbet-un* *ka.*
AUX=1S.E beat-PF NOM
[t-n-bug-an=na huling na Watan].
<PST>rear-LF=3S.E dog GEN Watan
'I beat the dog which Watan bred.'

c. %*Wada=mu* *sbet-un* *ka.*
AUX=1S.E beat-PF NOM
[t-n-bug-an=na Watan] huling.
<PST>rear-LF=3S.E Watan dog
'I beat the dog which Watan bred.'

There are no dialectal differences between speakers who accept (8c) and those who do not: all the data presented here is from a single dialect spoken in a single village by a close-knit speech community (in fact, in some cases even members of the same family may pattern differently). Further, there does not seem to be a generational difference either (both the youngest and the oldest speaker consulted belong to one group). Finally, all speakers interviewed are bilingual, some with Seediq and Mandarin, others with Seediq and Japanese, and some with all three. There is no correlation between the bilingualism pattern and syntactic preference in this respect.

For this reason, we refer to the two groups of speakers as Tgdaya A and Tgdaya B respectively. Tgdaya A (which does not allow Rel-N) is the variant spoken by four of the speakers I have consulted with respect to this issue, while Tgdaya B (which does allow Rel-N) is the variant described by Zhang (2000) and Aldridge (2004), and which was spoken by three of the speakers I have consulted (including the oldest and the youngest of my consultants).

The Rel-N pattern exemplified in (8c) is typologically unexpected in a verb-initial language. Nevertheless, it is common across the Formosan languages. Thus, most Formosan languages have Rel-N as an option (9a) beside Rel-N (9b), and at least Tsou and Bunun (9c) have Rel-N as the unmarked norm.

(9) a. *ulaya isuwa idru na ku=tinepuk-an na suwan*?
LOC where DEM DET 1S=beaten-LF DET dog
'Where's the dog I beat?' *Puyuma*

b. *ulaya isuwa idru na suwan na ku=tinepuk*?
LOC where DEM DET dog DET 1S=beaten
'Where's the dog I beat?' *Puyuma*

c. *mundaan ca [mina'u-s hutan a] uva'az.*
left NOM ate-ACC sweet.potato REL child
'The child that ate sweet potatoes left.' *Takituduh Bunun*

It is hypothetically possible that Tgdaya B may have evolved in analogy with other Formosan languages (in particular perhaps Takituduh Bunun, which is spoken in an area adjacent to Seediq). However, both varieties of Tgdaya Seediq are spoken by close relatives, and we have no other evidence of any Bunun-like properties in Seediq (such as Bunun VSO word order, which would be sharply ungrammatical in Seediq). These facts seem to suggest spontaneous mutation as a more likely explanation than borrowing.

In the following I will present a possible hypothetical scenario for such a mutation, consistent with the data and with other known facts about the structure of Seediq. It should however be noted that we have no way of knowing if this account is historically true.

Crucially, both groups of Tgdaya speakers have access to the typologically expected N-Rel construction (10a). However, as befits a language with clitic pronouns, most spontaneous discourse tends to avoid large-scale use of full NPs. Therefore, what is usually found in discourse is the reduced relative clause in (10b). Further, as in several other Formosan languages, word order can be used to represent information structure, in that new information precedes old information. Thus, parallel to (10b), there exists an alternative with a restrictive reading (10c).[7]

(10) a. *Wada=mu* *gguy-un* *ka* *nasi.*
PST=1S.E steal-PF NOM pear
[l<n>amu=na baki].
<PF.PRF>pick=3S.E old.man.
'I stole the pears which the old man picked.'

b. *Wada=mu* *gguy-un* *ka* *nasi* *[l<n>amu=na].*
PST=1S.E steal-PF NOM pear <PF.PRF>pick=3S.E.
'I stole the pears which he picked.'

c. *Wada=mu* *gguy-un* *ka* *[l<n>amu=na]* *nasi.*
PST=1S.E steal-PF NOM <PF.PRF>pick=3S.E pear
'I stole the pears which he picked (not those from the tree).'

That (10b) is a reduced variant of (10a) is hardly a challenge for the learner to work out. She may, on the other hand, have greater problems with (10c). Here several competing hypotheses are possible. If she has already become acquainted with the split (or internally headed) construction (11a), cf. also (8b), the null hypothesis would be to analyse (10c) as a reduced variant of (11a), analogous to the reduction which derives (10b) from (10a).

If, however, she has not encountered (11a), which is not surprising given its relatively low frequency, the null hypothesis is quite different. Again in analogy with the reduction deriving (10b) from (10a), where the position of

[7] Presumably derived by leftward (head-) movement of the verb past the noun.

the verb indicates the underlying position of the entire relative clause, the null hypothesis would now be that a preverbal reduced relative clause is simply a reduced version of a preverbal relative clause (11b). In this way, the learner hypothesizes that (11b) is a possible structure in Tgdaya Seediq.

(11) a. *Wada=mu gguy-un ka.*
PST=1S.E steal-PF NOM
[l<n>amu=na nasi na baki].
<PF.PRF>pick=3S.E pear GEN old.man
'I stole the pears which the old man picked.'

b. %*Wada=mu gguy-un ka.*
PST=1S.E steal-PF NOM
[l<n>amu=na na baki] nasi.
<PF.PRF>pick=3S.E GEN old.man pear
'I stole the pears which the old man picked.'

From the above, we can see how prenominal relative clauses can be acquired spontaneously without necessarily being part of the input. Once such a structure is acquired, moreover, the learner never sees any evidence against the existence of such a structure, since negative evidence is not part of the equation. Instead, there is more circumstantial evidence which actually supports the reanalysis in (11b).

The most common structure for relativizations is that where the overt arguments of the relative clause are clitics, while full NPs, if used in discourse, are usually introduced first, as in (12a). This construction, which is universally accepted, is not a relativization at all, but simply two apposed main clauses, where one is serving as the topic of the other, and where the quantifier *kana* 'all' in clause-final subject position is resumptive for the patient. However, given the optionality of the NOM marker *ka*, this structure is linearly ambiguous, and can easily be reanalysed as a topicalized prenominal relative clause. When linking the two clauses, some Tgdaya A speakers take the entire fronted clause and realize it as the predicate of a cleft construction (12b). This construction is presumably what most accurately merits the term "internally headed relative clause".

(12) a. *L<n>amu=na baki (ka) nasi.*
<PF.PRF>pick=3S.E old.man NOM pear
wada=mu gguy-un kana.
PST=1S.E steal-PF all
'The old man picked the pears, I stole them all.'

b. *[L<n>amu=na baki ka nasi].*
<PF.PRF>pick=3S.E old.man NOM pear
ka wada=mu gguy-un.
NOM PST=1S.E steal-PF
'I stole the pears that the old man picked.'
(lit. 'The old man picked the pears is what I stole')

Thus, even for speakers of Tgdaya A, apparent prenominal relative clauses do occur, but only in fronted position. However, for speakers of Tgdaya B, this is simply a clear instance of a prenominal relative clause, which corroborates their original hypothesis.

In this way, several factors conspire to enable prenominal relative clauses to emerge as the null hypothesis based on data which does not directly include them. All of these factors are available to all speakers, but it is simply a coincidence which hypothesis a given speaker chooses. Both grammars can capture the same input, and usually produce the same output, but directly affect acceptability judgments. This is exactly what we find.

There is one important difference between the structures in Tgdaya A and those in Tgdaya B, however. The output of Tgdaya A is perfectly compatible with the structure of Tgdaya B (from the point of view of a speaker of Tgdaya B, a Tgdaya A speaker is simply not making use of the entire spectrum offered by the grammar). In contrast, the converse is not true. The grammar of Tgdaya B allows prenominal relativization and can be expected to produce such constructions as its output as well. Once such constructions become part of the input for the next generation, the only possible hypothesis will be that prenominal relative clauses are part of the grammar. And of course, through this process, they become part of the grammar.

It follows, therefore, that the grammar of Tgdaya B is dominant and can be expected to expand in the long term at the expense of Tgdaya A. Reanalysis can only go from Tgdaya A to Tgdaya B, not vice versa. At some point in time, if the language were to develop with no external interference in an ideal situation, all speakers of Tgdaya Seediq would have grammars where both N-Rel and Rel-N coexist.

In this respect, the situation in Seediq relativization differs substantially from that in Swedish complementation: the Swedish parallel grammars presumably represent a stable system where the output of neither grammar challenges the well-formedness conditions of the other. In contrast, the Tgdaya Seediq parallel grammars presumably represent a temporary instability which can only be resolved in one direction: by the universalization of the Tgdaya B grammar. This is, given time and the survival of the Seediq language, a falsifiable prediction of the proposed hypothesis.

Conclusion

In this paper, I have argued that the homogeneous shared language of a speech community need not reflect a set of identical internal grammars on the part of the speakers, but rather that it is quite likely that the internal grammars of the speakers may be radically different, although the output they produce is largely identical. One prediction of this claim is that differences between the parallel grammars of different speakers should be noticeable along the margins of grammaticality, even when the core grammar is identical on the surface. This prediction seems to be borne out by the data presented here, which illustrates two types of parallel grammars: 1) coexisting parallel grammars which may be in a stable balance, i.e. when the two grammars produce mutually marginal output; 2) coexisting parallel grammars which are inherently unstable, i.e. when one grammar produces output which is ungrammatical according to the other grammar, but not vice versa (in which case we expect the more liberal grammar to produce output which would contradict the hypotheses underlying the more restrictive grammar, undermining these in the next generation).

While we cannot quantify this, it is to be assumed that the amount of input a learner is exposed to may have some effect, and we therefore expect a greater amount of instability in endangered minority languages than in languages which are the medium of instruction in schools.

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Acquisition of prosody

Word accents, phrasing, and morphosyntax in a Swedish-English bilingual child at 30–32 months of age

Merle Horne

Introduction

Gisela Håkansson has made many important contributions to the study of language acquisition in both monolinguals and bilinguals (e.g. Håkansson 1998, 2003). The acquisition of grammatical morphology has been an area of particular interest for her, in particular verb morphology and the relation between tense and verb-second word order. The present contribution attempts to illustrate the intimate relation between the acquisition of morphology, syntax and prosody using material from a bilingual child.

Since inflectional and derivational morphology is intimately associated with the distribution of word accents in Swedish (Bruce 1977; Riad 2012), the acquisition of prosodic patterns can be assumed to go hand in hand with the development of the lexicon. Moreover, since prosodic phrasing and syntactic phrasing are closely related (e.g. Selkirk 2000), the acquisition of prosodic phrasing can be expected to develop as postlexical and syntactic structures are learned.

Peters and Strömqvist (1996) have shown how the acquisition of morphology in a monolingual child is tied to the development of Accent 1 and Accent 2. The alternation between Accent 1 and Accent 2 in words with the same stem does not occur until the definite and plural suffixes in nouns (e.g. *bilen*$_1$ 'the car' – *bilar*$_2$ 'cars') and verb inflections (*kommer*$_1$ 'comes'–*komma*$_2$ 'to come') are learned (Accent 1 and Accent 2 will be represented with the subscripts $_1$ and $_2$). The present contribution aims at presenting data from a bilingual child that further illustrates the dynamic period in acquisition around 2.5 years of age where alternation between Accent 1 and Accent 2 in nominal and verbal morphology is well on the way to being mastered by the child. The bilingual data provide clues to the child's on-line processing of words into stem+affix by e.g. the use of Swedish affixes on English stems, as well as in the generalization of regular affixes to irregular stems. The understanding by the child of the affix/word accent relation at

30–32 months of age will be seen to be manifested not only by the use of correct alternations between Accent 1 and Accent 2, but also by meta-linguistic reasoning which shows hypothesis-testing regarding grammatical affix/word accent mapping. An interesting phenomenon in the material is the prosodic status of the infinitive form of the verb, which appears to have an Accent 1-like form at this stage. Although the acquisition of word-accent distribution has come a long way at 32 months, the material seems to indicate that prosodic phrasing, i.e. the grouping of word-accents and boundary tones into intonational patterns that are found in the adult language (see e.g. Horne 1994; Roll 2009; Myrberg 2010) is something that is still not at the target level at this early stage of development.

The bilingual child

The material in the present study comes from recordings of a boy (whom we will refer to as "Jesper") between the ages of 30 and 32 months. He is a simultaneous bilingual speaker (Viberg 1987), i.e. he was exposed to both English and Swedish (central Swedish variety) in the home. Swedish was, however, the dominant language (Arnberg 1981; Håkansson 1998), i.e. the language most often heard and used with playmates, Swedish relatives, nanny, friends of the family and was the language most often used by the boy in conversations. The data used here (approximately 250 Swedish utterances) were recorded at home in just such bilingual interactions. Although Jesper grew up in southern Sweden, he acquired a central variety of Swedish prosody, most likely modelled after the prosody of his father. We will assume therefore that the prosodic patterns that Jesper heard in his father's speech in the home served as the main input for the prosody model that he developed.

Swedish word accents

In Swedish, words are associated with one of two word accents (Bruce 1977, 1986). In Central Swedish, which can be assumed to be Jesper's prosodic model, Accent 1 is characterized by a low tone (L*) at the beginning of the stressed vowel, whereas Accent 2 is realized with a high tone (H*) at the beginning of the stressed vowel. This contrast is illustrated in Figure 1 with examples produced by Jesper's father.

According to Bruce (1977), the difference between Accent 1 and Accent 2 involves a difference in the timing of the same basic tonal contour with the segmental string (see Figure 2). Given this interpretation, it could be thought that one accent could be derived from the other on the basis of different timing of the tones with the segmental sting. As has been shown by Peters & Strömqvist (1996), Accent 2 is acquired first by monolingual children.

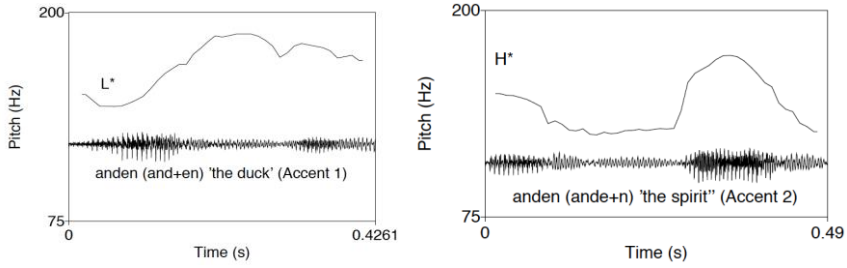

Figure 1. Left: F0-contour and waveform for the Accent 1 word *anden* 'the duck'. Right: F0-contour and waveform for the Accent 2 word *anden* 'the spirit'.

This being the case, it could then be thought that Accent 1 could possibly be acquired when the child perceives the crucial timing difference with respect to the stressed vowel and adjusts the tonal contour so as to associate it earlier with respect to the segmental string. The present data provide some indication that this could possibly be the case (see in particular Figure 5), but more extensive investigations are necessary in order to determine the mechanisms involved in learning the timing distinction between the two word accents. Perception and production of the prominent focal accent ("sentence accent rise" in Bruce 1977 (see Figure 2)) is mastered very early, but the timing difference of the word accent associated with the stressed syllable no doubt becomes finer tuned when the acquisition of grammatical affixes begins, since children then are focused on the form of the affixes and perceive that different suffixes are correlated with different word accents on the same stem, e.g. *boll+en*$_1$ 'the ball', *boll+ar*$_2$ 'balls'; *klipp+er*$_1$ 'cuts', *klipp+te*$_1$ 'cut (past tense)'.

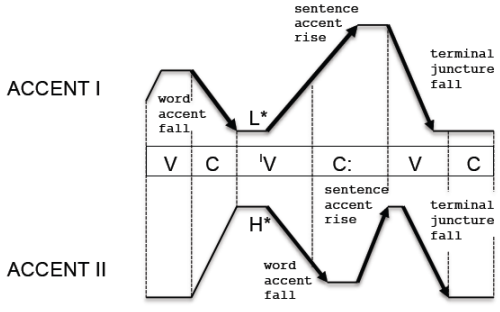

Figure 2. Timing difference of same basic tonal pattern in the realization of Accent 1 and Accent 2 in relation to the CV-tier. Note the low tone at the beginning of the stressed vowel (ˈV) in Accent 1 and the high tone at the beginning of the stressed vowel in Accent 2 (adapted from Bruce 1977 and Bruce 1986).

When are word accents acquired?

According to Plunkett & Strömqvist (1992), the word accent distinction is not mastered completely until around the age of 4 years. Accent 2 is acquired first (often before 2 years of age) in Central Swedish, and this has been assumed to be due to its perceptual salience (Peters & Strömqvist 1996). Accent 2 is realized on words with at least two syllables and the two high peaks in prominent (focused) Accent 2 words (most often utterance-final) make them very salient for the child. Monosyllables always have Accent 1. Due to tonal crowding, Accent 1 monosyllables in utterance-final position are sometimes realized with a tonal contour that resembles a non-prominent Accent 2 (i.e. H+L a prominent "sentence accent" or focal high tone followed by a low boundary tone) as is illustrated in Figure 3.

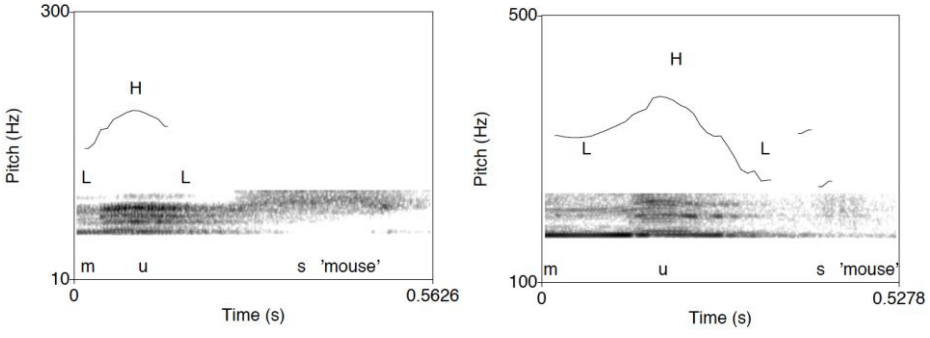

Figure 3. Left: F0-contour and spectrogram for an Accent 1 word (*mus* 'mouse') realized in utterance final position by Jesper's father. Notice that the second half of the vowel (*-u-*) is associated with a "sentence accent"/focal H-tone and a final L boundary tone. At an early age, this H+L pattern could perhaps be interpreted by the child as the same pattern as an Accent 2 (non-prominent) word accent. Right: Same F0 pattern produced on *mus* 'mouse' realized in utterance-final position by Jesper.

In the language acquisition process, Accent 2 is early generalized to Accent 1 words. There are many reasons for this. One reason is no doubt its salience (Peters & Strömqvist 1996). Another is the frequency of a phonetic H+L contour in utterance-final ("sentence accent") position both on prominent (focused) Accent 2 words and monosyllabic Accent 1 words (see Figure 2) boundary tones). A further contributing factor is that frequent Accent 1 words are often monosyllabic modal or base verbs (*är* 'is', *har* 'have', *vill* 'want', *kan* 'can', *ska* 'must') that occur in phrase-internal position where they are non-prominent or deaccented (Riad 2012). Thus the perceptual salience of Accent 1 words in utterance-internal position is considerably lower than that of Accent 2 words, thus making it no doubt more difficult for the child to determine their target form. At 30–32 months of age, however, when the acquisition of nominal and verbal morphology is well underway, as

is the acquisition of different syntactic structures, the recordings used in the present study show evidence that Jesper is well underway to mastering the mapping of word accents to different morphosyntactic structures.

Morphosyntax at 30–32 months

The recordings reveal that Jesper at 30–32 months had reached a stage in his acquisition of Swedish which seems to be comparable to that of other children at the same age (see e.g. Plunkett & Strömqvist 1992). As regards noun morphology, Jesper used the singular definite suffixes *-en* and *-et*, as well as the plural suffixes *-ar*, *-er*, and *-or*. The processing of the plural suffix *-ar* as an independent morpheme is observed for example in the extension of the ending to form the plural of irregular forms such as *hjul* 'wheel(s)' > *hjul*+ar. The singular definite ending *-en* is also used on English words, e.g. *pencil+en* 'the pencil', *piano-n+en* 'the piano' (with insertion of an intervocalic *-n-*).

As regards verb morphology, present tense forms from different declensions are common at 30–32 months: *komm+er* 'come(s)', *raml+ar* 'fall(s)', *ork+ar* 'manage(s)', *blöd+er* 'bleed(s)', *rid+er* 'ride(s)', *prat+ar* 'speaks', *läs+er* 'read(s)', *bo+r* 'live(s)', *hö+r* 'hear(s)'. Imperative forms also occur, e.g. *hämt+a* 'fetch', *titt+a* 'look', in addition to infinitive forms. Future tense forms using *kommer att* 'going to' also occur, e.g. *Du kommer inte att lyssna på Jesper* 'You are not going to listen to Jesper'.

Above the lexical level, Jesper is observed to produce many different constructions with modal verbs + infinitive, e.g. *vill* + infinitive: *Jag vill rita en segelbåt* 'I want to draw a sailboat'; *måste* + infinitive: *Jag måste betala* 'I have to pay'; *kan* + infinitive: *Du kan ringa* 'You can call'; *få* + infinitive: *Du får låna den boken* 'You can borrow that book'. Even constructions with preplaced adverbs and non-canonical (Adv V S (O)) word order are observed, e.g. *Så*/*Nu kommer jultomten* 'So/Now Santa Claus is coming'; *Då har han presenter* 'Then he has presents'; *Där bor farmor och farfar* 'Grandmother and grandfather live there'. Syntactic constructions involving topicalization are also produced at 30 months: *Nej, det gör pappa* 'No, Daddy does that'; *En sån ska jag ha.* 'I want one of those'. Even question word order is produced: *Kan vi släppa ut honom*? 'Can we let him (=Santa Claus) out?'; *Finns det flera här*? 'Are there several here?'

The recordings from 32 months contain relative clauses, e.g. *Vad är det som fastnar där*? 'What is it that gets stuck there?' as well as subordinate adverbial clauses, e.g. *När jag fyller år då ska jag gå i skolan* 'When I have my birthday, then I will go to school'. Productive compounding, thought to be correlated to the acquisition of relative clauses (Plunkett & Strömqvist 1992) is also observed at 32 months, e.g. *elefantpresent* 'elephant-present', i.e. a present that is an elephant.

Prosody at 30–32 months

The use of inflectional morphology leads to morphophonological alternation between Accent 1 and Accent 2: *bil+en*$_1$ 'car +def.sg.', *bil+ar*$_2$ 'car+s (pl)', *komm+er*$_1$ 'come+s' – *komm+a*$_2$ 'come+inf'. Therefore, at 30–32 months, one expects, and indeed finds evidence for the child's association of the different word accents with different grammatically inflected forms. Figure 4 shows present (*gör*) and preterit (*gjorde*) forms of the verb *göra* 'to do' associated with Accent 1 and Accent 2, respectively.

In addition to the spontaneous production of morphophonological alternation between the two word accents, additional evidence for the processing of inflectional morphemes as independent units comes from utterances where a verb stem is mapped onto different possible suffixes and word accent patterns. For example, on one occasion, Jesper seems to be involved in metalinguistic reasoning, testing different possible verb forms to express the present tense of the verb *hålla* 'to hold' and produces the utterance: *Inte hålla… håller… *hållar* 'Not to hold… holds …. holds' with different word accent patterns. The infinitive form *hålla* 'to hold' has an Accent 1-like pattern with a L at the beginning of the stressed vowel. This is a common accentual pattern for infinitives in the speech of Jesper at this age (see also below for a further discussion of infinitives; see also Figure 5). In the present tense form, *håller* 'holds', there is also a L in the stressed vowel, although not as early as in the infinitive. In **hållar* 'holds' (non-target suffix *-ar*) , there is a low tone at the beginning of the stressed syllable with a steep rise that then falls in the stressed vowel. The suffix *-ar* is associated with a prominence (focal) H tone. Thus the Accent 2-like contour on **hållar* provides evidence for the child's association of the suffix *-ar* with Accent 2.

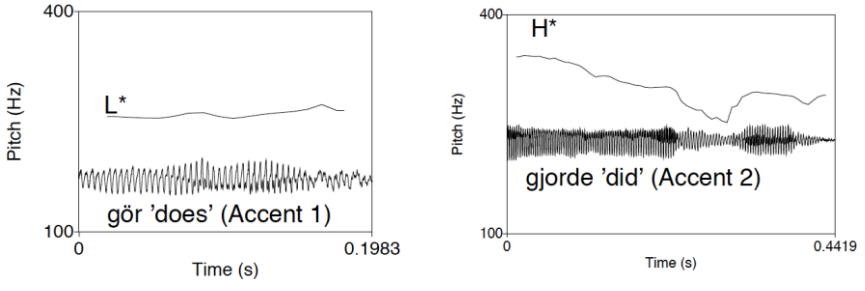

Figure 4. Left: F0-contour and waveform for the present tense form gör 'does' (Accent 1). Right: F0-contour for past tense gjorde 'did' (Accent 2) produced by Jesper (30 mo.).

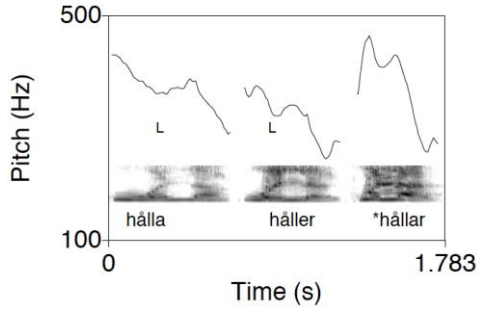

Figure 5. Three different forms of the verb *hålla* 'to hold' produced by Jesper (30 mo.) Left: *hålla* (infinitive) with a L tone at the beginning of the stressed vowel, and with the preceding high in the onset of the syllable (note the voiced *h*); Center: *håller* (present tense) with an Accent 1 contour; preceding high in the syllable onset (voiced *h*); Right: **hållar* (non-target suffix *-ar*) with Accent 2-like contour.

The earlier timing of the accentual contour on the other forms perhaps indicates that the child associates the present tense suffix and infinitive form with a different timing of the word accent pattern (see also Figure 2).

Evidence for the understanding of the present and preterit tense affixes as independent morphemes is seen in their productive use to build new verbs from e.g. interjections. For example, on the basis of the interjection *Pang!* 'Bang!' (sound of a pistol), Jesper creates the forms *pang+er*$_1$ 'bangs' and *pang+de*$_2$ 'banged' with alternation between Accent 1 in the present tense form and Accent 2 in the preterite tense form (see Figure 6). Further evidence for Jesper's processing of verbal tense morphology is seen in the attachment of the regular *-de* preterite suffix to irregular verb-stems such as *kom* 'come' > *kom+de*$_2$ 'came' with concomitant association of Accent 2 to the stem.

Indication of the independent processing of the infinite marker *-a* (as well as the singular definite suffix *-en*) is seen in its use together with English lexical items, e.g. *read+a* in utterances containing modal verb + infinitive constructions like *Kan du reada monkeybooken?* 'Can you read the monkeybook?' What is interesting at this stage, however, is that it is not obvious that the infinitive marker is associated with the target Accent 2. Rather, the infinitive, which occurs most often in utterance internal position is most often associated with a tonal pattern that resembles Accent 1 (see also above, Figure 5). Perhaps this is due to the fact that infinitive forms which are often utterance internal are often realized with Accent 1 or deaccented in adult speech in e.g. verb-particle constructions like *följa med* 'come along', *släppa ut* 'let out', *lyssna på* 'listen to' (see Riad 2012). Indeed, following Christensen (2003), infinitive forms, as opposed to imperative forms, can be regarded as accentually "neutralized" forms of present tense forms (e.g. *följer*$_1$ 'follows' and *ritar*$_2$ 'draws'). In one instance in the present data, the

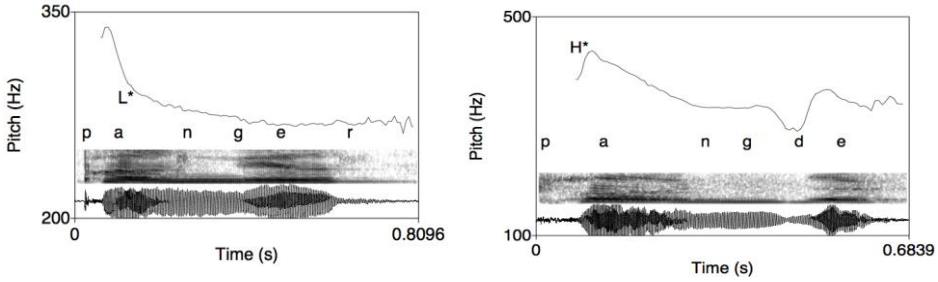

Figure 6. Left: F0 contour, spectogram and waveform for present tense form *pang+er*$_1$ 'bangs' of verb *panga* 'to bang' formed by Jesper from the interjection *Pang!* 'Bang!' (sound of a pistol) Right: F0 contour, spectogram and waveform for past tense form *pang+de*$_2$ 'banged' of same verb.

present tense (*följer* 'follow') is used instead of the infinitive form (*följa* 'to follow') in the utterance *Du får följer med mig* 'You can follow me'. Whether this has any connection with the child's association of present and infinitive forms is impossible to say on the basis of the limited data, but the association of infinitive forms with Accent 1 in the present data is rather striking.

At 32 months, prosodic phrasing is something which has not reached the adult norm. Speech rate is also slower than the adult target (ca. 3–4 syllables/second) in relation to the adult target (ca. 6–7 syllables/second) in spontaneous speech. Prosodic phrases thus contain fewer words than in adult speech. While right-edge prosody is very adult-like, utterance-internal prosody is still under development. This can be seen quite clearly, e.g. in the production of compounds. In the adult target, compounds have an accentual pattern that corresponds to Accent 2, i.e. with a H*L on the first stressed syllable and a prominence rise on the last stressed syllable. In the speech of the two-year-old, the different components of compounds retain their individual tonal patterns. In Figure 7, the difference between Jesper's F0 contour for the compound *segelbåt* 'sailboat' and that of his father are presented. As can be seen, the component morphemes in Jesper's production are both produced with a prominent tone, i.e. both *segel* 'sail' and *båt* 'boat' are realized with a focused word accent. In the adult target, on the other hand, only the final morpheme in the compound, *båt* 'boat', is realized with a focal accent. In the speech of the 2.5 year-old, the general impression is that the tones are rather firmly anchored to the syllables to which they are associated. The kinds of tonal spreading and tonal concatenation patterns that characterize the adult norm are not something that is characteristic of speech at this early age. Although right-edge prosody is very adult-like, utterance initial and internal concatenation patterns (see e.g. Horne 1994; Roll 2009; Myrberg 2010) are still not as in the target prosodic structure.

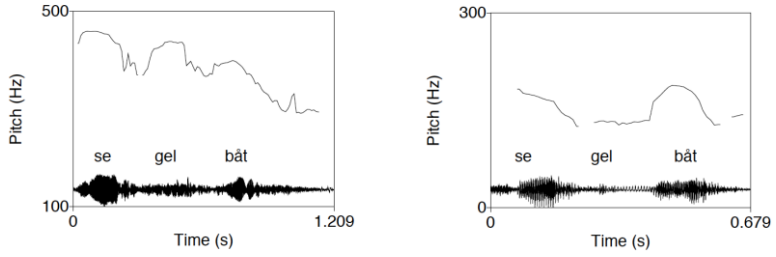

Figure 7. Left: F0 and waveform for the compound *segelbåt* 'sailboat' produced by Jesper (32 mo.). Notice that both component morphemes of the compound (*segel* 'sail' and *båt* 'boat') are realized with a prominent tone. Right: F0 and waveform for *segelbåt* produced by Jesper's father showing a prominent (focal) Accent 2 pattern on the whole compound.

Conclusion and questions for further study

Although the material investigated in the present study is quite limited, it contains a good number of clues to the on-going process of acquisition of inflectional morphology, syntax and the mapping of word-accents onto lexical structure. The material shows that the bilingual child at 30–32 months is in the process of acquiring inflectional morphology and the morphophonological rules for associating the word accents with different grammatical affixes. Although the right-edge prosody is very adult-like, utterance internal prosody has still not reached the adult target.

In order to be able to arrive at a better understanding of the course of acquisition of the prosody-morphology mapping, it is necessary to conduct more comprehensive longitudinal studies of language acquisition. Controlled data where the same words can be elicited in different morphosyntactic contexts is necessary in order be able to better track the acquisition of word accents and prosodic phrasing. The present data points to the development of the infinitive form in relation to the present tense and imperative forms as an interesting area of research which could give us a better understanding of the relationship between finite and non-finite forms of the verb. Another area which would lead to more insights into the acquisition of intonation would be a longitudinal study of the development of compound word prosody.

A further area that could be explored using neurolinguistic methods is the question as to when word accents start being used in speech parsing. In ERP (Event-Related Potential) studies using adults (Roll 2009; Roll et al. 2010; Roll et al. 2013), it has been shown that word accents are used predictively in speech processing, i.e. they are used to cue up-coming suffixes. Evidence from the present material and other child data indicate that already at 30–32 months, children seem to be aware of the word-accent/affix relationship. Thus neurolinguistic studies could provide evidence as to whether they are actually used in language parsing at this age.

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Writing – it's like learning a new language!

Victoria Johansson

Introduction

When young children learn to write, they discover that it is impossible to "translate" language as they know it – i.e. speech – directly into writing. This paper discusses how characteristics of spoken language influence the early stages of writing, and proposes that children must learn a new language when they start to write. The study is qualitative, based on examples from a Swedish developmental corpus of cross-sectional data in speech and writing. Although Swedish data are used, the examples serve to illustrate a more general discussion about what happens when a child acquire the skills of writing. This paper mainly addresses the learning of writing that takes place in preschool and school, and concerns a phonographic alphabet.

The findings should primarily be seen as suggestions of areas that may be of interest for a more systematic investigation in the future.

Speech and writing: some differences

The differences between speech and writing will only be briefly outlined here. A good description can be found e.g. in Chafe & Tannen (1987).

It obviously takes much longer to express a written message than a spoken one. The more time-consuming process of writing thus involves more effort, which might explain why the (young) writer does not manage everything in writing that she masters in speech. A second difference is that language is visible in writing. This makes it possible to edit the message before it reaches the reader. This is also something that the child who learns to write has not encountered before, since in speech, the text is finished once and for all – no one requires you to go through your spoken message again. The visibility also makes it possible to study relations in language that the child has not previously noticed: for instance spelling conventions can reveal morphological patterns. The third main difference is that the reader is not present during the writing session. The prototypical speaking situation is the

conversation (Chafe 1992), and speech is produced in collaboration between speaker and writer (Clark 1996). The speaker gets support by the listener; her reactions tells the speaker if the message is understood. The listener can also ask questions, thereby helping a young and inexperienced speaker in structuring the message. The writer has to make assumptions about what the reader already knows and needs to know in order to understand the written text.

These three fundamental differences between writing and speaking explain many of the features characteristic of the inexperienced writer, as we will see below.

Data

The examples in this paper come from a corpus of spoken and written data, collected with the purpose to investigate the development of both speech and writing during the school ages (Johansson 2009). Data consist of 316 texts, produced by 79 participants from four different age groups: 10-, 13- and 17-year-olds, and adult university students. Every participant produced four texts: one spoken and one written narrative, as well as one spoken and one written expository text. All participants had Swedish as mother tongue, and none of the participants had any known reading or writing difficulties. The data were recorded individually in a lab environment. The spoken texts were videotaped, and the written ones were recorded with a keystroke logging program that saves information of writing activites such as pausing and editing that takes place during the text production. The pausing and editing data are not analyzed in this paper. The data collection was part of the international Spencer project (described in Berman & Verhoeven 2002). The data are distributed across age groups, modalities and genres as shown in Table 1.

Table 1. Distribution of the 316 texts in the study. Number of texts in each text type.

Text type	10-year-olds	13-year-olds	17-year-olds	Adults
Narrative spoken	20	20	20	19
Narrative written	20	20	20	19
Expository spoken	20	20	20	19
Expository written	20	20	20	19

Elicitation

All texts were elicited by a short wordless video, picturing problems in a school setting (e.g. children cheating during a test; a girl stealing money that a woman dropped; a boy who destroys a public telephone where his money got stuck; two girls who leave when another girl approaches and wants to talk).

The narrative texts were elicited with the following instruction: *Jag skulle vilja att du berättar om ett tillfälle antingen där du räddade någon ur en knipa, eller där någon räddade dig ur en knipa.* ('I would like you to tell about one time either when you rescued somebody from a predicament, or when somebody rescued you from a predicament'). The expository texts were elicited with the following: *Du såg nyss en video som visade människor som hade hamnat i olika slags svårigheter, människor som hade problem av olika slag. Jag skulle vilja att du skriver en uppsats/håller ett föredrag där du diskuterar sådana situationer som människorna i filmen hade hamnat i*. ('You just watched a video showing people in different kinds of troubles. Now I would like you to write an essay or give a speech where you discuss the kind of situations that the people in the film got into.').

Half of the participants produced the narrative texts first, the other half started with the expository texts. Also, half of the participants performed the spoken tasks first, half the written tasks. In the following, the order differences will not be discussed, although we can expect that this has certain effects, particularly on the spoken texts; both Strömqvist (1996) and Johansson (2009) show order effects, where the spoken texts are influenced in structure and lexical variation if they are preceded by a written text on the same content. Genre differences will only be briefly touched upon here, although the younger age groups' competence in the expository genre differ from the adults (cf. Berman & Verhoeven 2002).

Both written and spoken texts were transcribed according to the CHAT format (McWhinney 2000). However, to enhance comprehension, the transcriptions of the spoken examples are adapted to the orthographic standard, except when an unorthodox written form is used as an example in itself.

Transition from speech to writing

The errors that the child makes when learning to write can be explained by the fact that the writing is not merely a translation of the spoken language, but consists of different rules on all levels: phonological/graphemic, morphological, lexical, syntactical, and pragmatic. I illustrate this with Swedish examples from the data and provide an English translation, as well as information on what type of text they were extracted from. For the purpose of possible later identification, the unique text code (e.g. [wg18mDNW]) is also indicated.

Phoneme – grapheme relation

In many languages the phoneme – grapheme relation between speech and writing is not a one-to-one relation; not all sounds in speech are represented in writing, and not all letters are represented in speech. This has many

reasons, but one has to do with conservative spelling conventions, which can be the result of historical development, where a specific spelling reflects a previous pronunciation (such as the spelling of the Swedish word *skjorta*, 'shirt', where the initial sounds historically were pronounced /skj/ but later palatized to /ʃ/), or have morphological reasons (such as *snyggt* ('good-looking'), pronounced with a /kt/, which is the neuter form of the adjective *snygg*). The double *gg* in *snyggt* is not necessary for the pronunciation, but makes the connection between the two forms of the adjective visible. This connection is kept in writing only, since the spoken forms differ.

They boy in example (1) seems not to have observed the preposition *i* ('in') in the expression *i alla fall* ('in any case'). Also, the boy does not seem to acknowledge that this expression is constituted of three words/morphemes (which according to spelling recommendations can be written as three separate words, or as one word, *iallafall*). It is easy to believe that the expression consist of only one word, if one has only heard it. Finally, the boy needs to know that *fall* should have a double consonant at the end of the word, due to the fact that a short vowel (often) is followed by two consonants in Swedish. The same problem occurs in example (2), where *visa* (*vissa*, 'some people'), *gilade* (*gillade*, 'liked') and *varan* (*varann*, 'each other') follow the principle that each phoneme is matched by a grapheme, but the writer fails to meet the criteria of double consonants after a short vowel. Sometimes the young writer is aware of discrepancies between writing and speech, which can lead to hypercorrection, as in example (3): **skrivigt* (*skrivit*, 'writtend').

(1) *allafal* ('(in) any case'). Written narrative, boy, 10 [wg18mDNW].

(2) *visa* i filmen *gilade* inte *varan* ('some people in the film did not like each other'). Written expository, girl, 10 [wg06fBEW].

(3) och tänk om den som man skrev av hade *skrivigt* en jättebra dikt ('and what if the person you copied had writtend a really good poem'). Written expository, girl, 10 [wg06fBEW].

Different morphology

Speech and writing do not always have the same morphology. An example is Swedish verbs belonging to the first conjugation. In writing their preterit form ends in *-de*. However, in speech, this ending is often omitted, and the word becomes homonymous with the infinitive form.

(4) så här *börja* det ('this is how it start'). Written narrative, boy, 10 [wg18mDNW].

In example (4), the writer has omitted the preterit ending *-de* of the word *börja* ('start'). This is very common in speech, independent of age, as example (5), from an adult woman, illustrates:

(5) och han kom och *börja* prata (’and he came and started to talk’). Spoken narrative, adult woman [wu18fDNS].

Word boundaries and formal level of lexicon

In example (1) part of the expression *i alla fall* was omitted in speech. Difficulties in identifying the word boundaries is typical for texts from early writing development. In example (6) the writer is ignorant of the fact that *i och för sig* (here ’actually’) consists of several words, and treats it as one word: *ifösej*.

(6) *ifösej* så hugger inte snokar i vatten (’actually grass snakes won’t bite in water’). Written narrative, boy, 10 [wg18mDNW].

One case that illustrates a general difference between speech and writing is the use of some common Swedish personal pronouns. In most Swedish dialects the object forms *mig* (‘me’), *dig* (‘you’) and *sig* (3rd pers. reflexive pers.pron.) are pronounced *mej*, *dej* and *sej*. They can also be spelled in this way in colloquial written texts. The pronouns *de* (’they’) and *dem* (’them’) are both pronounced *dom*. Table 2 shows the number of instances, and their relative frequency (e.g. the use of *mej* represents 0.11 % of all written words by the 10-year-olds) in the written data.

Table 2. Distribution of some Swedish pronouns in writing.

Word	10-year-olds	13-year-olds	17-year-olds	Adults
mej	5 (0.11 %)	4 (0.05 %)	0	2 (0.01 %)
dej	0	0	0	1 (0.01 %)
sej	0	0	0	7 (0.04 %)
dom	67 (1.43 %)	103 (1.27 %)	0	8 (0.05 %)

Mej is used by 10- and 13-year-olds to a small extent. The adults occasionally use the colloquial spelling, but it should be noted that, all instances of *sej* and of *dom* are produced by the same adult. The great difference across the age groups lies in the use of *dom*, which is often used by the 10- and 13-year-olds, but hardly at all by the other groups. One reason why the children write *dom* might be that this is a solution to the problem of choosing between *de* and *dem* – something that is required only in formal writing.

Another example is shown in Table 3, which displays the distribution of the two words, *ju* and *liksom*. *Ju* has a meaning of ’as we both know’, and can be described as a particle that the speaker uses to create common ground with the listener. *Liksom* can be translated as ’kind of’ and is sometimes used to modify a word when the speaker does not quite find the expression she is looking for, as in example (7), where the speaker modifies the verb *insåg* (’realized’) with *liksom*.

(7) det var då jag väl *liksom* insåg att jag måste faktiskt börja fundera på vem fan jag är (’that was when I kind of realized that I actually must start to think about who the hell I am’). Written narrative, adult man [ws17mDNS].

Liksom also has another use, meaning ’as is’, or ’like’. In this sense, it is used and accepted in writing. Such use occurs once (out of two written instances) in the adult data. *Ju* also has an alternative meaning, namely the first part of the comparative expression: *ju mer … desto mer* (’the more… the more’). This occurs, but sparsely, in the data.

Table 3 shows the distribution of *liksom* and *ju* in speech and writing in the data. One general finding is that *liksom* is used very seldom in writing, independent of age. It is used in speech by all groups, with the 13- and the 17-year-olds using it the most. *Ju* is used in both speech and writing by all groups, and in speech the use remains at the same proportion of all words (1.3 %) in all age groups (with a dip in the 13-year-olds, with 1.1 %). However, in writing the use is more common in the groups of 10- and 13-year-olds than with the 17-year-olds and adults. One interpretation is that the two youngest age groups use the same vocabulary in writing as in speech to a larger extent. This can be explained by several factors. They may observe and imitate their environment – these data suggest that the 17-year-olds and the adults use *ju* to the same extent as the younger groups in speech. Another explanation is that it requires less effort to use well-known words than new, or less frequent words. McCutchen (2000) proposes that writers make many choices in order to reduce the cognitive load during writing. Nevertheless we observe a developmental pattern, where one expression (*ju*) is used much more in writing (as an influence of speech) by the young age groups.

In Table 3 relative frequencies (e.g. *ju* represents 1.3 % of all spoken words by the 17-year-olds) are used, since the texts vary substantially in length between the age groups, and raw numbers would say very little of how common the words are.

Table 3. Distribution of *ju* and *liksom* in speech and writing.

Word	10-year-olds		13-year-olds	
	Speaking	Writing	Speaking	Writing
ju	89 (1.3 %)	20 (0.4 %)	66 (1.1 %)	46 (0.6 %)
liksom	34 (0.5 %)	0	54 (0.9 %)	1 (0.01 %)
Word	17-year-olds		Adults	
	Speaking	Writing	Speaking	Writing
ju	296 (1.3 %)	38 (0.2 %)	320 (1.3 %)	30 (0.2 %)
liksom	176 (0.8 %)	2 (0.01 %)	147 (0.6 %)	2 (0.01 %)

Syntactic variation

The syntax may vary between speech and writing. For instance, Strömqvist (1996) reports instances of so-called left dislocation, where 15-year-olds in his study introduce a person or phenomenon first and then make a comment. In Strömqvist's study, this was found only in speech, but not in writing. In my data, this is true for the older age groups, but there are examples of left dislocation in writing from the youngest age group. In example (8) the boy introduces one of the problems he discusses by mentioning one of the characters in the film: *han som satt bredvid den där tjejen som visade sitt papper för honom* ('he who sat next to that girl who showed him her paper'). The character in the film is thus introduced with *han* ('he') followed by a relative clause *som satt bredvid den där tjejen som visade sitt papper för honom*. This relative clause would according to (written) grammar be followed directly by the verb *kollade*, but it is not. Instead the pronoun *han* ('he') is repeated: ***han*** *kollade ju inte ens* ('he didn't even look you know') followed by in total two sentences that constitute a comment about what was introduced. Adults also use similar constructions, but only in speech, as shown in example (9), where the speaker first refers to the film scenes with bullying: *om man nu tar mobbningsscenerna då där de liksom inte hälsar på någon och så där va* ('if we take the bullying scenes then where they kind of do not greet anyone and so on'), and then makes a comment about these scenes, by stating that *men de finns ju precis lika så här eh man gör ju det även i vuxenvärlden* ('but there is you know exactly the same like this eh you do that you know also in the adult world'). The construction might not be an exact parallel to the previously described left dislocation, but it still demonstrates a way of introducing topics, and commenting on them, using syntactic structures typical in speech, but uncommon in writing.

(8) ett annat ganska allvarligt problem är att *han som satt brevid den där tjejen som visade sitt papper för honom* han kollade ju inte ens han bara struntade i läxförhöret och tänkte på något annat ('another pretty serious problem is that he who sat next to that girl who showed him her paper he didn't even look you know he just skipped the test and thought about something else'). Written expository, boy, 10 [wg04mAEW].

(9) *om man nu tar mobbningscenerna då där de liksom inte hälsar på någon och så där va* men det finns ju precis lika så här eh det man gör ju det även i vuxenvärlden ('if we take the bullying scenes then where they kind of do not greet anyone and so on but there is exactly the same like this eh you do that you know also in the adult world'). Spoken expository, adult woman [ws16fDES].

Pragmatics

On the pragmatic level, speech and writing also differ. The writer must presuppose the previous knowledge of a possible reader. The ability to picture one's reader, and to adapt the message so that it can be understood outside the context where it was produced is developed over the ages. Bereiter & Scardamalia (1987) for instance, propose a transition from *knowledge tellers* to *knowledge transformers*. The former type of writer generates (fairly coherent) texts by translating knowledge in the order it is retrieved. The latter type supplements this strategy with global planning, where, for instance, the text is organized according to the needs of the reader.

The participants were asked to discuss the film they had seen. The 10-year-olds often use the film as the common ground between reader and writer, using the fact that the reader (i.e. the researcher) had seen the film. In example (10) we find the expression *den fröken eller vad det nu var* ('that teacher or what it was'), as well as the use of *ju*, which implies that the writer assumes that the reader is familiar with the situation.

To make use of the reader's previous contextual knowledge is important for any writer, but the young writers in this group produce expository texts that are often almost impossible to understand for anyone who has not seen the film. To understand that the reader needs to know more background is easier in the narrative texts, where the topic is unknown to the researcher (i.e. a personal story), and where there is little shared knowledge about the situation and topic. In this context the children often give information that will help the reader understand the context. This is shown in example (11), where a 10-year-old boy describes what a *fender* ('boat fender') is, since he expects that the reader will not know this.

(10) ett annat problem var när *den fröken eller vad det nu var* tappade sina pengar då kom det *ju* en tjej som kunde ha sprungit efter ('another problem was when that teacher or what it was dropped her money then came, you know, a girl who could have run after her'). Written expository, boy, 10 [wg04mAEW].

(11) när vi gick på båten skulle jag ta upp *fendrarna de som sitter på båten på sidan de som gör att man inte repar båten som ligger bredvid* ('when we entered the boat I was to pull up the boat fenders those that hang on the boat on the side they are the ones that make you avoid scratching the boat beside you'). Written narrative, boy, 10 [wg10mBNW].

The 13-year-olds use the same strategy, but only in speech, as shown in example (12). This is the very first sentence from the spoken expository text, where the speaker does not even define who *de* ('they') are, but assumes that the listener knows that it refers to some children in the film. In writing, it looks completely different, as is shown in example (13); here the same person does not presuppose the elicitation film as common ground.

(12) dels var det ju fusk *de* fuskade på prov (’partly it was you know cheating they cheated on a test’). Spoken expository, girl, 13 [wj02fAES].

(13) fusket hade gått att upptäcka om man hade varit mer vaksam (’the cheating could have been detected if they had been more vigilant’). Written expository, girl, 13 [wh02fAWS].

To sum up, the 17-year-olds and the adults show ability to create written texts that do not presuppose that the reader has seen the film, and spoken texts that interact with, and use the fact that the listener and speaker have some common knowledge. The results show that only the youngest participants, the 10-year-olds, have problems adapting their written expository texts to the needs of their audience.

Discussion and some conclusions

The examples in this paper illustrate that children who are learning to write do not treat written language as adults do. I have argued that the differences can often be explained by the fact that the child relies on spoken language also when writing. Gradually, written competence develops, and the writer produces more adult-like texts.

The examples demonstrate that the adults and the group of 17-year-olds use different language in their spoken and written texts. This is salient on all linguistic levels. The youngest age groups, and primarily the 10-year-olds, rely on linguistic features typical of speech also in writing. This could be linked to several factors, such as: ignorance of spelling conventions and written morphology, but also an inability to define word boundaries, choose the right level of formality for certain word forms, or follow written syntax, as well as lacking ability to understand the need for contextual information.

In this paper, only participants with no known reading and writing difficulties were included. The relation between speech and writing, and the writing development may of course look different for other kinds of writers.

The transition from being “only” a speaker into becoming both speaker and writer is long and laborious, and for most people, the development in writing will go hand in hand with the general linguistic development which takes place during the school ages. Accordingly, it is difficult to distinguish between what can be attributed to the general motoric and cognitive development, and what is a product of learning the written language per se. Some theories of written development, for instance McCutchen (2000), claim that a more fluent text production will allow the writer to free up more cognitive capacity for other writing processes. This would mean that a writer who has automatized spelling conventions (e.g. the phoneme–grapheme-relation, and written morphology) will have more cognitive space for other processes, for instance the syntactic structure or pragmatic considerations. This would

explain why the 10-year-olds face problems on all linguistic levels in writing. They may simply be so concerned about low-level processes like spelling and punctuation, that they must rely heavily on strategies from speech to be able to produce text. Two such strategies, illustrated here, are the syntactic construction with left dislocation, and the failure to create a written expository text that can be understood by someone who has not watched the same film. However, the 10-year-olds seem able to create independent narrative texts, which suggests that they take the opportunity to be less explicit when the possibility appears (in this case in the expository written texts). By doing so they reduce the cognitive pressure of producing a coherent and independent expository.

In parallel with the process of learning to write, children also develop their spoken language further. The development of both modalities might occur simultaneoulsy but are not identical. When the child's development reaches adult-like performance, the language user has developed different sets of phonology, morphology, syntax, lexicon and pragmatics for speech and writing.

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Bilingualism in the university classroom and student engagement in deep learning approaches

Marie Källkvist

Introduction

In today's globalised world, most teaching situations involve multilingual individuals, and we are witnessing the monolingual approach (i.e. strict use of the target language only) gradually giving way to flexible multilingualism in the teaching of foreign/second (L2) languages (Creese & Blackledge 2010; Hélot & O' Laoire 2011). Interestingly, this coincides with the publication of a number of books and articles where applied linguists and language educators express renewed interest in the judicious use of translation tasks for facilitating L2 learning (Butzkamm & Caldwell 2009; Cook 2007, 2010; Duff 1989; Malmkjær 1998; Witte et al. 2009). The support for the occasional use of translation (or L2-to-L1 comparison) in L2 teaching situations extends to work in Second Language Acquisition (SLA) where empirical work suggests that providing L2 learners with contrastive information in the L1 may facilitate the learning of certain areas of L2 grammar (e.g. Kaneko 1992; Kupferberg & Olshtain 1996; Rolin-Ianziti & Brownlie 2002; Spada & Lightbown 1999).

What comes to the fore in these publications is that the suggested role of translation emerges as markedly different from what it was in the days of the grammar-translation method. Translation is now promoted either as a tool for learning specific areas of grammar only, or as a real-life task, in the frame of task-based language education, used only judiciously and alongside a range of other tasks to foster interaction and learning among students. Benefits attributed to translation are that it involves cognitive processes that learners naturally engage in in real life (Gonzàlez Davies 2001; Malmkjær 1998); that L1 and L2 become linked in ways that may enhance memory traces (Hummel 1995, 2010); that translation tasks may hold particularly strong potential for student-initiated activity and interaction in L2 classrooms (Källkvist 2013); that it makes learners 'notice the gap' (Gonzàlez

Davies 2001); that it directs attention to accuracy and perhaps caters particularly to learners who like to use analytical skills (Malmkjær 1998) and who are introverted rather than extroverted (Sewell 2004). In a recent book-length treatment of the topic, applied linguist Guy Cook expresses his full support for the use of translation in L2 teaching and learning (2010:155):

> …translation has an important role to play in language learning - that it develops both language awareness and use, that it is pedagogically effective and educationally desirable, and that it answers student needs in the contemporary globalized and multicultural world […] Translation is just such a bridge between the familiar and the unfamiliar, the known and the unknown. To burn that bridge or to pretend that it does not exist, hinders rather than helps the difficult transition which is the aim of language teaching and learning.

It is easy to agree with Cook's recommendations, but the challenge resides in conducting further research on the theory and practice of translation for L2 learning purposes, in search for more evidence-based L2 teaching and learning. In previous publications (Källkvist 2008, 2013), I have argued for the need to begin building a theoretically informed empirical basis from which we can gain insights into what specific learning conditions and contexts may warrant the judicious use of translation.

Although a great deal has been written about the use of translation in L2 education over the past 10-15 years, empirical research addressing the effect of translation on L2 learning is surprisingly scant (cf. Cook 2010:90). Numerous questions worthy of attention therefore come to mind. What value might translation have for early L2 learners when it comes to certain areas of the L2 grammar, L2 vocabulary and L2 pragmatics and culture, for instance? What is the optimal use of translation in the case of advanced-level learners whose aim is to reach professional-level command?

This chapter aims to synthesize research on the effect of translation on L2 learning and then discuss the value of translation tasks from the point of view of deep approaches to learning, which is a central concept in higher-education pedagogy. As there is virtually no research on the effect of translation on the learning of L2 grammar apart from my own (cf. Cook 2010), the focus is on my own longitudinal study of L1-to-L2 translation tasks carried out at a university in Sweden (Källkvist 2008, 2013).

The purpose is not to promote translation as a teaching method; rather, it is to encourage a continued call for identifying teaching and learning contexts in which carefully designed translation tasks may have value. I begin by surveying research on the effect of translation on L2 learning; the focus then turns to the effect of translation on L2 classroom interaction, and finally I discuss translation in relation to the concept of deep approaches to learning.

Research on the effect of translation on L2 learning

A number of studies have investigated the use of L1 translation equivalents for the purpose of enhancing learners' knowledge of vocabulary in a L2, leading to a consensus that the provision of L1 cues in learning materials facilitate rather than hamper L2 vocabulary learning (cf. Danan 1992, 2010; Lambert 1986; Grace 2000; Hummel 2010; Laufer and Girsai 2008; Prince 1996). There is also a substantial body of research that suggests that L1 use emerges naturally in L2 classrooms as a learning and communication strategy used by students during their completion of different types of tasks (for a review see Moore 2013).

As examples of this type of research, two separate studies found beneficial effects on the retention or comprehension of L2 vocabulary when learners watched subtitled films where subtitling was reversed (i.e. sound in L1 and the script in L2) (Danan 1992; Lambert 1986). Two studies (Laufer & Girsai 2008; Prince 1996) investigated classroom-based learning of L2 vocabulary, both of which found significantly superior effects on learning when new L2 vocabulary was introduced in the company of L1 translation equivalents and contrastive information than when the same L2 vocabulary was presented in L2 co-text. Laufer and Girsai's study involved teenage Hebrew-speaking L2 learners of English learning English vocabulary both in isolation and as collocations. Prince's study involved French-speaking intermediate-level learners of English at university level in France. He found that the use of translation equivalents led to significantly more learning for all his participants, but particularly those in the lower proficiency range. Finally, a recent study by Hummel (2010) shows that passive translation (copying a sentence containing an L1 translation equivalent of the target L2 word) led to significantly more learning in the short term than conditions where learners were actively translating sentences either from L1 to L2 or vice versa.

My own study of translation and the learning of L2 grammar (Källkvist 2008) is a longitudinal and experimental study carried out in the authentic module *English grammar and written proficiency* in three university EFL classrooms at a Swedish university. Participants were first-semester students of English who had grown up in Sweden, having been exposed to Swedish from birth, and who attended all classes over a 13-week period. They had had 9–10 years' classroom instruction in English prior to entering university.

On registering for first-semester English, they were divided into two groups using matched-pair random assignment on the basis of an in-house placement test of practical English grammar. The two groups were then taught English grammar by the same teacher (myself), who was also a participant observer (in the ethnographic sense of the term).

One group was provided with task sheets targeting practical English grammar, involving translation from Swedish (L1) into English (L2). This group will be referred to as group T (for 'translation'). The other group was

provided with task sheets targeting exactly the same morphosyntax the same number of times, but through gap tasks, noticing tasks, and text-editing tasks, all of which involved no comparison with their L1, and never translation. This group is therefore referred to as the NoT group (for 'no translation').

Both groups were pre-tested and post-tested using an identical battery of tests, which consisted of three parts, all focusing on difficult L2 English grammar, of which they had no or very limited knowledge at the beginning of the course: a) a multiple-choice test, b) a short text to be translated from Swedish into English, and c) a written retelling of a story in English. All three tests contained the target grammar structures focused on in the course and covered extensively in the task sheets. The results showed significant gains on the multiple-choice and translation tests from pre- to post-test for both groups. There were gains also on the retelling test, in which they operated only in L2, but due to it being a retelling task, it was not possible to carry out inferential statistics.

The T group showed greater gain on the multiple-choice test and on the translation test, but the gain was not significantly greater than that of the NoT group. On the retelling test, the NoT group had greater gain from pre-test to post-test than the T group. In this sample, there was thus an exercise effect (though non-significant): the T group improved more from pre- to post-test when post-tested through translation. The NoT group showed greater gain from pre-test to post-test than the T group on the retelling test, which required no translation.

The study concluded that both the translation and the no-translation treatments led to statistically significant amounts of learning of difficult L2 morphosyntax, at least in the short term. The most important finding to report here is that L1-to-L2 translation tasks led to learning of difficult L2 grammar, and that this was traceable even in tests that did not involve translation.

All of the above described research into the effect of translation on L2 learning jointly suggests positive effects. This should provide us with fuel and incentive to further explore the role translation may play in different learning contexts and with different kinds of learners. One important factor in L2 learning is interaction in L2, to which I now turn.

A study of translation tasks and interaction

Whereas there are a number of studies focusing on L2 learner interaction engendered by different kinds of tasks (e.g. Garcia Mayo 2002a, 2002b; Storch 1997, 1998, 2008; Swain et al. 2009; Toth 2008), there seems to be only one focusing on interaction and translation tasks (Källkvist 2013). This study involved the two experimental groups T and NoT described above and one additional intact group of undergraduate students of English who took

the same module as the T and NoT groups. The intact group will be referred to as the TI group (for 'translation but intact' group) and students in this group were given task sheets with a mix of translation, gap, transformation and text-editing tasks as part of the same module. The translation tasks designed for use in the T and TI groups were modelled on translation exercises used in published exercise materials accompanying the assigned reading that would normally be used. The tasks involving no translation (gap, noticing, composition and text-editing) mirrored the translation tasks in that exactly the same grammar features were targeted the same number of times.

The data consist of audio-recordings of 19 (out of 54) 90-minute classes. The 19 recordings are spread across all three groups, focusing on translation, and identical translation tasks were completed by groups T and TI. Identical gap tasks were completed by groups TI and NoT, and an identical text-editing task was completed by all three groups.

Close reading of the transcribed data showed that interaction engendered by the translation tasks was different from the other tasks particularly with regard to (i) student-initiated turns, (ii) degree of focus on the targeted L2 morphosyntax, and (iii) the nature of teacher scaffolding. When the translation tasks were used, there were significantly more turns initiated by students, where they either asked questions to the teacher regarding different language features, typically concerning whether their translation was an acceptable rendering of the Swedish source text, or to initiate discussion of different possible translations of the same Swedish word, phrase or sentence. This result was consistent across both the T and TI groups. It was also found that when translation was used, there were significantly fewer turns relating to the targeted L2 grammar feature (for example the use of the past tense versus the perfect aspect, or the use of the definite versus zero articles) than when gap tasks were used.

Finally, the teacher used different scaffolding techniques depending on task type, although the data were too limited for inferential statistical analysis. When translation tasks were used, the teacher allowed ample time for questions/discussion of any language feature in the text, using scaffolding prompts to encourage student discussion. When gap tasks were used, on the other hand, there were far fewer student-initiated questions, and the teacher instead used the time available to scaffold students into verbalising their explicit knowledge of English grammar to explain why a certain text segment was accurate or inaccurate.

These findings suggest that the translation and gap tasks served different purposes in these classrooms, targeting different learning outcomes. Gap tasks were used to achieve a sharp focus on the targeted L2 grammar and to encourage students to build and verbalise explicit knowledge of the kind needed when teaching English or when translating. The translation tasks – on the contrary – were used to encourage student-initiated interaction and to actively use English to discuss features of the English language.

Further, when translation tasks were used, the student-teacher interaction was characterised by true information-gap questions from several different students to the teacher. At times a couple of students became involved, expressing their opinions regarding the translatability of certain Swedish words or expressions into English. An observation on the part of the teacher was that students felt they had expert knowledge of and about Swedish, giving them confidence to initiate and enter into discussions regarding translation equivalence. A further anecdotal observation is that the heightened level of confidence was noticeable in their body language as students involved in discussion that concerned the meaning and/or use of Swedish assumed a more assertive posture. Yet another observation was that the presence of native-English-speaking students (there were two in the TI group) led to more student-initiated turns in the form of true information-gap turns, since they too on several occasions brought up issues of translation equivalence between their L1 – English – and their L2, Swedish.

The study concludes by suggesting that translation tasks have particular potential for student-initiated activity, mainly for two reasons: firstly, translating involves a stage of comparison between the two different languages involved, which entails making choices between different possible acceptable translations. Secondly, the translation tasks used involved comparison as students completed their translations in pairs, small groups or individually. As a result, there were a number of different target texts and thus alternative solutions present simultaneously in the classroom, which led to questions relating to acceptability and idiomaticity.

Finally, the study suggests that translation tasks can easily be adapted to suit different teaching/learning situations by including or excluding certain vocabulary, such as words rich in near-synonyms and culture-specific vocabulary. If such vocabulary is omitted and – in the case of nouns – common nouns are replaced by proper nouns, then it was possible to achieve a focus on grammar features even when translation tasks were used.

The next section brings these research results beyond SLA into the realm of higher education pedagogy.

Translation and approaches to learning

The concept of approaches to learning has developed over the past 30 years or so, emerging from research carried out in higher education at Gothenburg University, Sweden, originally published by Marton and Säljö (1976). In the early days, the concept of approach related to students' reading of texts, whereas the contemporary view of approaches to learning is that they apply to any learning task and to learners of all ages as they engage with different kinds of tasks (cf. Ramsden 2003). This concept of approaches to learning is

now considered central to higher education pedagogy and two different approaches are distinguished: surface and deep (Ramsden 2003).

An approach is not tied to specific individuals as everyone is capable of both deep and surface approaches to learning; instead, an individual adopts surface or deep approaches when engaging with the material in a task. Typically, a surface approach is adopted when an individual's focus is getting a task over with, often with limited effort. There is then normally a focus on memorising details or parts (surface learning) instead of searching for meaning and understanding by relating facts to concepts (deep learning) (Ramsden 2003). The surface approach is not necessarily negative, however. It may be both an economical and appropriate approach to adopt when completing a specific task or it may be helpful to pave the way for adopting a deep approach to gain conceptual understanding. For instance, it may be economical and advantageous to adopt a surface approach when someone has to memorise facts in a short period of time in order to pass a test (Ramsden 2003). However, recent publications in higher education pedagogy unanimously advocate deep approaches as being superior for enhancing understanding of course content and in the life-long building of knowledge in general (Biggs & Tang 2007; Ramsden 2003; Elmgren & Henriksson 2010).

The issue under exploration here is whether translation may have the potential to engage students in such a way that they adopt the deep approach to the translation task at hand, and – more broadly – to learning in general as they progress through L2 education. To my knowledge, there are no published studies that relate L2 learning to deep and surface approaches, and what follows here is therefore explorative and aims to generate hypotheses and further discussion.

Below is a synthesis of characteristics of surface versus deep approaches to learning proposed in five recent publications on learning and teaching in higher education. Following this, in Table 1, I discuss translation tasks against each of the characteristics of deep approaches to learning.

The following characterise deep learning approaches according to Biggs and Tang (2007), Elmgren and Henriksson (2010), Entwistle and Peterson (2004), Kember (2007) and Ramsden (2003):

- Learning tasks capture students' interest and have a clearly defined purpose, which is returned to regularly in the course.
- The course focuses on students' understanding of the course content.
- The course content is related to students' general knowledge, to students' knowledge in the subject area prior to the course, and – if possible – to students' personal experiences.
- Aspects of the course content that may be particularly challenging are identified, and carefully selected concrete examples are provided to facilitate students' understanding.
- Students' are given opportunities for reflection and group discussion.

Entwistle and Peterson (2004) provide a more extensive list, including also the following:

- Constructive friction is created, i.e. course materials involve learning and thinking activities that students are unlikely to engage in and solve on their own.
- Students are provided with criteria for assessment and grading.
- Formative assessment is used in order to stimulate students' understanding of concepts and to provide feedback.

In Table 1 below, translation tasks are discussed against each characteristic of deep learning listed above.

Table 1. Translation tasks in relation to aspects of a deep learning approach.

Characteristics of deep learning approaches	**Are these characteristics typically present when students engage in translation tasks?**
Learning tasks capture students' interest and have a clearly stated purpose, which is returned to regularly in the course.	The amount of student-initiated interaction engendered by the translation tasks used in Källkvist (2013) is a sign that the tasks were interesting and relevant. Translation is a suitable task to use for the purposes of focusing on L2 form and has the advantage that everyone present in the classroom pays attention to the same source text.
The course focuses on students' understanding of the course content.	Translation tasks can be tailored to targeting students' understanding of course content, for example of English grammar, since translation tasks often require practical application of students' knowledge of grammar. For instance, isolated sentences or even parts of sentences can be used if the object of learning is particular L2 grammar (cf. Spada & Lightbown 1999) or L2 vocabulary. The translation tasks in Källkvist's interaction study (2013) were used to discuss a broad range of language issues: English grammar, culture-specific vocabulary, synonymy, collocational restrictions and the usage of prepositions, the usefulness of bilingual vs. monolingual dictionaries, in order to target students' understanding of the complexity of language and language use.
The course content is related to students' general knowledge, to their knowledge in the subject area, and their personal experiences (if possible).	Translation links students' knowledge of their L1 with their developing command of their L2 (cf. discussion in Hummel 1995; Danan 2010), and Källkvist's interaction study (2013) showed heightened levels of student engagement when there were discussions of L1 and L2 equivalence. Also, most people probably have personal experiences of a real-life situation where they needed to translate.
Aspects of the course content that may be particularly challenging are	L1 source texts can easily be adapted to different learner groups by the instructor through the inclusion of language features that are particularly challenging. For

identified, and carefully selected concrete examples are provided to facilitate students' understanding of concepts.	instance, the lexical content can be adjusted, and translation is by its very nature a concrete activity (cf. discussion in Sewell 2004).
Students are given opportunities for reflection and group discussion.	Since translation is a problem-solving activity, it is naturally suitable to reflection in groups or individually. The interaction data in Källkvist (2013) attest to it having good potential to engender student-initiated discussion.
Constructive friction is created.	Translation is highly suitable for making students 'notice the gap' (between one's own L2 capacities and those of native speakers of the L2, cf. González Davies 2001) since the teacher can choose to control the nature of the source texts. Källkvist's interaction data (2013) suggest that students raised many queries regarding language use that they would not be able to fully solve on their own.
Students are provided with criteria for assessment and grading.	In a course focusing on form in the L2, it is relatively easy to list criteria for both assessment and grading. This is due to the fact that all students translate the same source text, whose linguistic content can be controlled by the instructor.
Formative assessment is used in order to stimulate students' understanding of concepts and for the purpose of giving them feedback.	Given enough resources and time, students can hand in translations for feedback from their instructor during the course as well as at the end.

Finally – and very importantly – tasks need to be meaningfully embedded within the course content and be clearly related to the learning outcomes, the assessment as well as to students' education and educational goals in general. Mediation through teacher and student agency is likely to facilitate students' engagement in the task through adopting deep approaches to learning. It is also likely that other L2 writing tasks have similar potential to engender deep learning approaches through teacher and student agency.

Discussion and conclusion

I have argued that findings from the empirical research reviewed above provide good reason to continue exploring the value of judiciously used translation tasks in L2 learning contexts. There is also reason to believe that carefully designed translation tasks in L2 can serve to engage students in deep learning approaches.

I propose two reasons for this. One is the fact that the instructor can control the content of the source language text, adjusting it to suit the needs as well as interests of different student groups. Translation therefore also has particular potential to create constructive friction by adjusting the level of difficulty of the source language text. Moreover, by being bilingual rather than monolingual, it involves a phase of comparison (between the L1 and the L2 and between different possible alternative translations), which in Källkvist's (2013) study led to significantly more student-initiated discussions and reflection than the equivalent monolingual tasks did. Finally, owing to teacher control of the source text, translation tasks are relatively easy to mark and grade.

The second reason pertains to the nature of language competence: generating the almost infinitely possible number of utterances in a language is based on knowledge of morphosyntax, lexis, collocations, stylistic and pragmatic resources etc. This type of knowledge cannot be acquired by the human mind solely through the memorisation of isolated facts. Particularly in production tasks that require the composition of a full, coherent, cohesive and meaningful text through using a range of L2 resources, students need to draw on the complex knowledge base that language is.

However, translation is only useful up to a point and is a viable choice only in contexts where the L1 is shared among everybody present, such as in the context of Swedish higher education in English as a foreign language where completed upper-secondary-school-level courses in both Swedish and English are required for admission. Since the ultimate aim of modern language courses is mastery of the L2 *without* L1 mediation, there comes a point when translation needs to replaced by other writing tasks.

At present we know far too little about what specific learning situations and individuals are likely to be assisted by translation, and we have a long way ahead before we can deliver evidence-based modern language courses. For instance, curiously, there are no studies of the role of L1 glosses in L2 vocabulary learning involving pupils and students in Swedish schools and universities.

Finally, the discussion in this chapter of L2 learning tasks in relation to deep approaches to learning is explorative. This domain appears wide open to research, but there seems to be reason to believe that the judicious use of short, carefully designed translation tasks (and other tailor-made L2 writing tasks) have the potential of engaging students in deep approaches to learning. For further study, it would be particularly interesting to focus on students' interaction patterns and negotiations while completing tasks involving translation. Having students rate the extent to which they feel they are engaging in deep approaches while completing different kinds of writing tasks in their L2 would also provide interesting further data that are more directly focused on approaches to learning.

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The relationship between lexical and syntactic development in English as a second language

Satomi Kawaguchi

Introduction

This cross-sectional study[8] investigates the development of argument mapping in learners of English as a second language within the framework of Processability Theory (PT), see Pienemann et al. (2005). It explores empirically the mapping hypothesis in English L2 which has not been previously treated in any detail in PT. My interest in this exploration stems from the fact that the mapping of thematic roles (such as agent and patient) onto grammatical functions (such as subject and object) presents different degrees of difficulty for L2 learners. The study also explores the relationship between lexical and syntactic development. Following Lexical Functional Grammar (LFG), e.g. Bresnan (2001) grammatical constructions are lexically restricted in language learning (cf. Pinker 1984, Tomasello 1992 in L1 acquisition). Therefore, lexical ability may be assumed to be strongly related to syntactic ability. Especially lexical learning of verbs is important because it leads to the development of sentences, where more complex verbs are necessary to construct complex sentences.

The chapter is organized as follows. The next section briefly explains the lexical mapping hypothesis and two sources of difficulties for argument mapping. This is followed by the presentation of a study investigating the lexicon-syntax relationship in Japanese learners of English L2, its results, and conclusion.

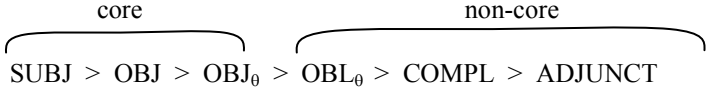
[8] This study was funded by the University of Western Sydney Seeding Grants scheme.

Lexical Mapping Hypothesis in PT

Many linguists (e.g. Bresnan 2001; Foley & Van Valin 1984; Givón 1984; Jackendoff 1972) have suggested a universal hierarchy of thematic roles, as in (1). This hierarchy orders the relative prominence of the arguments of a predicator: the higher the level in the hierarchy, the more cognitively prominent is the argument. Grammatical functions also have a hierarchical relationship according to their prominence, as in (2). All core functions are more prominent than non-core functions. So the most prominent role is universally the agent. This means that the agent is more likely to be encoded as a core-argument, such as subject, rather than non-argument (Bresnan 2001). On the other hand, the locative role, located at the bottom of the hierarchy, is less prominent and likely to be encoded as a non-core-argument rather than core argument.

(1) Thematic hierarchy (Bresnan 2001: 307)
Agent > Beneficiary > Experiencer/Goal > Instrument > Patient/Theme > Locative

(2) Relational hierarchy (Keenan and Comrie 1977, referred in Bresnan 2001: 96)



Based on these universal thematic and relational hierarchies, Pienemann et al. (2005) first proposed the *Lexical Mapping Hypothesis*. This is currently formulated as follows:

> In second language acquisition learners will initially map the highest available role in the semantic hierarchy onto a minimally specified SUBJ/TOP. We call this: canonical mapping. Then they learn to map further arguments onto grammatical functions (GF) other than SUBJ or OBJ. Finally, they learn to attribute prominence to a particular thematic role lower in the semantic hierarchy by promoting it to SUBJ. At this stage they also learn to defocus the highest role by suppressing it or mapping it onto a GF other than SUBJ. We call these non-canonical mapping. (Bettoni & Di Biase, in preparation.)

The Lexical Mapping Hypothesis, then, predicts that the initial syntactic structure that learners construct as soon as they are able to produce utterances of more than one word will utilize canonical mapping. This contributes to the realisation of canonical order structures in the L2 which rely on the association Agent-Subject and Patient-Object appearing in a fixed

position.[9] Such association, in line with other acquisition theories (e.g. Pinker 1984; Slobin 1982), is assumed to require least processing effort (e.g. Pienemann et al. 2005). From a psycholinguistic point of view, Agent (rather than Patient or Theme) is the most prominent participant role in an event (Jackendoff, 1972), and from a grammatical point of view, Subject is the most prominent grammatical function (Keenan and Comrie 1977). Thus the Agent-Subject association is the most harmonious because the most prominent participant role is mapped onto the most prominent grammatical function taking the most prominent (first) position. This is schematically represented in Figure 1 with the English example *the cat ate the fish* where the Agent <cat> is mapped onto the grammatical function (GF) Subject while the patient <fish> is mapped on the Object GF. By contrast, in passive sentences, exemplified in Figure 2, the highest thematic role (i.e. Agent) is suppressed. However, the suppressed "agent" may appear as Adjunct. Hence passive constructions are clear cases of non-canonical mapping. L2 learners, however, find this difficult at first. The lexical mapping predicts that they will learn this alternative mapping only after canonical mapping is in place.

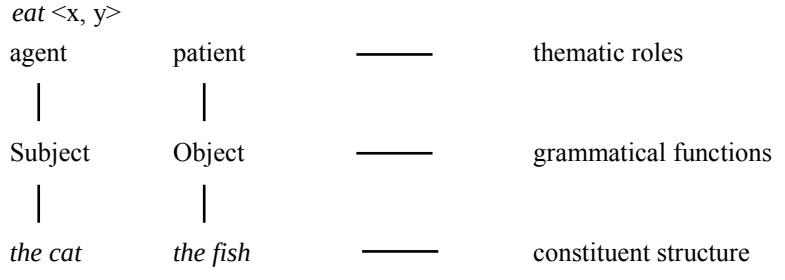


Figure 1. Active mapping: *the cat ate the fish.*

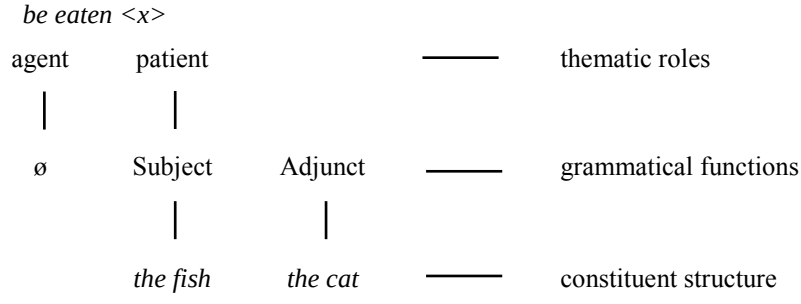


Figure 2. Passive mapping: *the fish was eaten by the cat.*

[9] Of the six possible ways of ordering Subject, Object and Verb in languages, SVO, SOV and VSO "are overwhelmingly more frequent, reflecting the universal tendency for the subject to precede the Object" (Comrie et al. 2003). See also Greenberg (1966), Tomlin (1986).

Recently, it has become possible to measure brain activities involved in language processing. For example, Yokoyama, Miyamoto et al. (2006) measured brain activities in the left middle temporal gyrus for processing three different lexical categories in Japanese native speakers. They found that activity levels increased in the following order: Noun < Unmarked Active Verb < Inflected Passive Verb. They explain that "…verbs have richer lexical information than nouns, including information relating to subcategorization, argument structure, thematic structure, and so on, all of which are critical to sentence processing" (p. 1309). Further, Yokoyama, Okamoto et al. (2006) in a different experiment involving Japanese L1 – English L2 late bilinguals showed evidence of significant interaction between sentence type (active vs. passive) and language (L1 vs. L2). They found greater processing load with passive sentences than with their active counterpart. These results were consistently found in both the L1 and the L2 of these bilinguals. Speakers use these more costly non-canonical structures because they are linguistic devices to attribute prominence to thematic roles other than the Agent. For example, the passive is a linguistic alternative way to construct a verbal message to place prominence on Patient rather than Agent (Levelt 1989) and allows the speaker to impart different perspectives on discourse world situations (Payne, 2011). Next I exemplify canonical and non-canonical structures used in my experiment.

Canonical mapping: The sentence in (3) represents a typical canonical mapping construction with a transitive verb *break* which requires two arguments where the more prominent role, the Agent, is mapped on the Subject and the less prominent role, the Patient, is mapped on the Object grammatical function. There are also some intransitive verbs[10] (the unergative ones) whose sole argument, typically an Agent or Experiencer – a role high in the thematic hierarchy – maps on the Subject. This is also a canonical mapping operation, represented in (4).

(3) canonical transitive

Break <Agent, Patient> *I broke the stick*

Agent	Patient
SUBJ	OBJ

[10] Intransitive verbs, which require only one argument, are divided into unergatives and unaccusatives (Burzio 1986). These classifications are based on the thematic role that the sole argument carries in the sentence. The argument of unergative verbs typically bears an agent or experiencer role as in (a) while that of unaccusative verbs typically bears a theme or patient role as in (b).

a. Tom cried (Unergative); b. The window broke (Unaccusative)

(4) canonical intransitive
cry <Experiencer> *the baby cries*

Experiencer
SUBJ

Non-canonical mapping: A typical case of non-canonical mapping is the passive construction, explained above. This type of non-canonical mapping is usually called 'structural' because the alternative lexical entry (*be eaten,* versus active *eat*) creates a structural frame which is regular and predictable. Causative constructions are similarly non-canonical mapping structures, which are also regular and predictable alternative constructions (see Pienemann et al. 2005, and Kawaguchi 2009 for Japanese causatives). Other non-canonical mappings are created 'lexically' in the sense that they are intrinsically required by the lexical verb, hence they are neither regular nor predictable so they need to be learned case by case. Characteristically, these verbs map hierarchically lower thematic roles, e.g., Theme, on the Subject. For instance, with the unaccusative alternative of the verb *close* in (5), the hierarchically lower role, Theme, is mapped on the Subject while the Agent role of the eventuality of 'closing' is actually excluded from the scene altogether.

(5) Unaccusative verb[11]
close <Theme> *The door closed suddenly*

Theme
SUBJ

(6) Psych Verb: OBJ Experiencer (OE)
frighten <Theme, Experiencer> *Her screams frightened John*

Theme	Experiencer
SUBJ	OBJ

Another group of verbs which build non-canonical mappings in English are the so-called *Psych verbs* (c.f. White et. al. 1999). For example, the verb *frighten,* in (6), requires the Theme *her screams* (i.e. a lower role in the thematic hierarchy) to be mapped on the Subject while *John,* the Experiencer, (i.e. a higher role in the hierarchy) is mapped on the less prominent grammatical function Object. Hence non-canonical mapping can

[11] There are alternating (e.g., *close, break*) and unalternating accusative verbs (e.g., *arrive, appear*) in English (see Hirakawa 2003). The former involves non-canonical mapping while the latter build canonical mapping.

be generated either lexically, as exemplified in (5) and (6) or structurally as in passives and causatives discussed above.

The study

Given the above context the research questions are as follows:

> Q1. Do Japanese-speaking learners of English L2 invariably acquire canonical mapping before non-canonical mapping?
>
> Q2. Is there a relationship between lexical size in the L2 (Nation and Beglar 2007) and the acquisition of the different types of non-canonical mapping?

The informants in this study were 22 Japanese L1 speakers of English L2 (five male and 17 female) aged between 20 and 56 years (mean 31, SD 9.9) with length of stay in Australia ranging from 9 days to 27 years. They include: working holiday participants, university students (all undergraduate, MA and PhD), business people and one professional translator. Adult informants of varying lengths of stay may provide a wide range of attainment in English L2. An 18-year-old simultaneous bilingual first language speaker of English and Japanese, born in Australia by native Japanese-speaking parents, participated as a control since one of the tasks involved Japanese to English translation. In order to ensure the informants' anonymity, codes such as JA1, JA2 were assigned.

Two tasks were used for this study. First, the Nation & Beglar (2007) vocabulary size test which measures vocabulary knowledge up to the 14,000 word families level was used. It is well attested (e.g. Nation 2006) that there is a significant correlation between vocabulary size and receptive language abilities (i.e. reading and listening). It is interesting to test whether productive language ability also shows a relationship with vocabulary size.

The second task used was a written production translation task. There are not many studies of productive abilities in the field of second language acquisition; with the exception of Hirakawa (2003) and White et. al. (1999) most tasks involve either comprehension tests or grammatical judgment tests. However, Håkansson and Norrby's (2007) demonstration that both oral and written development follow the PT hierarchy paved the way to the use of written production data to measure L2 acquisition in PT. In the second task, the informants were asked to translate 25 Japanese sentences into English and were instructed to use a particular English verb in their translation for each sentence (see Appendix A). Six of these 25 sentences, which involve ditransitive verbs, raising and subordination, were not used in the present study. The 19 verbs tested in the translation production task (summarised in Table 1) contain five canonical and fourteen non-canonical structures (six lexical non-canonical and eight structural non-canonical structures).

Table 1. The 19 English verbs targeted in the translation production task.

Canonical transitive (n=5)	Non-canonical			
	Lexically non-canonical		Structurally non-canonical	
	Intransitive (Unaccusative) (n=3)	Transitive (Psych Verb) (n=3)	Passive (including: adjectival & stative passive (n=6)	Causative & Causative-Passive (n=2)
Break *Wash* *Kill* *Close* *Stop*	*Freeze* *Fall* *Fall from*	*Please* *Confuse* *Shock*	*Kill (be killed)* *Break (be broken)* *Close (be closed)* *Confuse (be confused)* *Interest (be interested)* *Surprise (be surprised)*	*Wash (make X wash Y)* *Work (be made to work)*

All verbs were selected from the first (most frequently used) vocabulary band[12] i.e. 1 to 1,000 for English except for the verbs *shock* and *confuse* which are in the second band. In some cases the informant's ability to use the same verb in canonical and non-canonical ways was tested. For example, the verb *kill* was included twice in the translation, in an active and a passive context respectively.

Results and discussion

This section shows results of the vocabulary size test followed by the translation task results, after which the relationship between the informants' lexical size and translation ability relating to canonical and non-canonical mapping is discussed.

Vocabulary size test. Figure 3 lists the distribution of the 22 informants' vocabulary size. Minimum and maximum sizes are 3,000 and 12,700 words (mean 7,141 words, SD=2,466). Each informant's vocabulary size is listed in the second column of Table 2 and Table 3. Nation & Beglar (2007) note that "undergraduate non-native speakers successfully coping with study at an English speaking university have a vocabulary around 5,000–6,000 word families. Non-native speaking PhD students have around a 9,000 word vocabulary" (p. 9). The present study covers informants ranging from well below undergraduate university level to beyond PhD level. The informant who attained the highest vocabulary size (12,700) – higher than 18-year old-native control (11,300) – is a professional English–Japanese translator.

[12] English frequency list based on Vp-BNC list
<http://www.lextutor.ca/freq/lists_download/1000_families.txt>

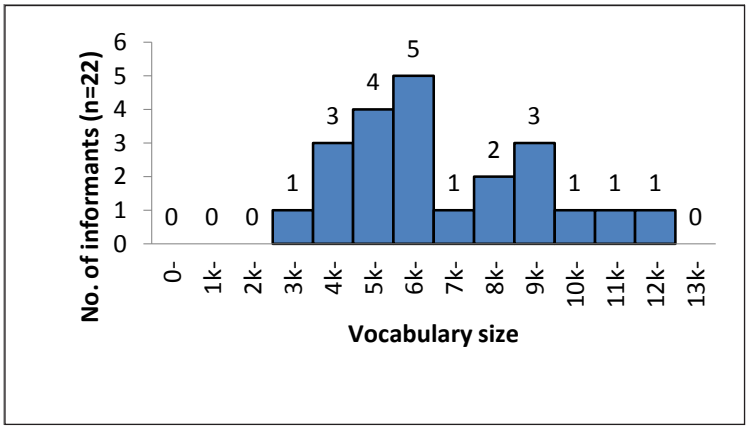


Figure 3. Informants' vocabulary size.

Translation task. The lexical mapping hypothesis predicts that non-canonical mapping is acquired after canonical mapping. However, it does not predict relative acquisitional order of lexical versus structural non-canonical mapping. Table 2 shows the distribution of lexically non-canonical mapping in the translation task compared with the distribution of canonical mapping. Table 3 does the same with structurally non-canonical mapping. In each cell of the two tables, frequency counts of correct argument mapping is entered before slash (i.e. '/') while the total number of contexts is listed after the slash. The question mark, '?', indicates that the structure is well-formed but the informant did not use the verb they were instructed to use in the translation (e.g. *shock*): instead they used it as a noun as in *The Airplane accident gave shock to people in the world.* Accuracy rates, indicated in brackets, are calculated on the basis of the correctness of argument mapping and, therefore, such errors as grammatical agreement (e.g. subj-verb and plural agreements) are not counted as errors. The shaded area indicates that the PT usual emergence criterion is satisfied, i.e. that the learner was able to produce the target structure more than once in different contexts. Table 2 and 3 show the implicational nature of the acquisition of canonical and non-canonical argument mapping. Further, within lexically non-canonical mapping (Table 2), unaccusatives are acquired before psych verbs. Thus the acquisition order is: canonical > unaccusative > psych verb. Also, Table 3 indicates that the acquisitional implication is as follows: canonical > passive > causative. Thus, all non-canonical mappings are acquired after canonical.

Table 2. Canonical versus lexically non-canonical mapping compared to vocabulary size.

			Non-canonical	
Informant	Vocab. size (x1,000)	Canonical	Unaccusative	Psych Verb
JA15	5.0	2/5 (.4)	1/3 (.33)	1/3 (.33)
JA19	4.6	3/5 (.6)	1/3 (.33)	0/3
JA11	3.0	4/5 (.8)	1/3 (.33)	0/3
JA21	6.8	5/5 (1.0)	1/3 (.33)	1/?1/3 (.33)
JA16	4.7	5/5 (1.0)	2/3 (.67)	0/3 (0)
JA18	5.1	5/5 (1.0)	2/3 (.67)	0/3 (0)
JA17	5.8	5/5 (1.0)	2/3 (.67)	0/3 (0)
JA20	4.1	5/5 (1.0)	3/3 (1.0)	0/3 (0)
JA09	5.4	5/5 (1.0)	2/3 (.67)	0/3 (0)
JA14	6.4	5/5 (1.0)	3/3 (1.0)	0/3 (0)
JA08	6.8	4/5 (.8)	2/3 (.67)	0/3 (0)
JA06	6.9	4/5 (.8)	3/3 (1.0)	0/3 (0)
JA04	9.0	5/5 (1.0)	3/3 (1.0)	0/1(?)/3 (0)
JA07	8.1	5/5 (1.0)	2/3 (.67)	1/3 (.33)
JA22	6.2	5/5 (1.0)	3/3 (1.0)	1/3 (.33)
JA05	7.7	5/5 (1.0)	3/3 (1.0)	1/3 (.33)
JA12	8.8	5/5 (1.0)	3/3 (1.0)	3/3 (1.0)
JA10	9.0	5/5 (1.0)	3/3 (1.0)	3/3 (1.0)
JA01	9.7	5/5 (1.0)	3/3 (1.0)	3/3 (1.0)
JA02	10.1	5/5 (1.0)	3/3 (1.0)	3/3 (1.0)
JA13	11.2	5/5 (1.0)	3/3 (1.0)	3/3 (1.0)
JA03	12.7	5/5 (1.0)	3/3 (1.0)	3/3 (1.0)
NS control	11.3	5/5 (1.0)	3/3 (1.0)	3/3 (1.0)

Table 3. Canonical versus structurally non-canonical mapping compared to Vocabulary size.

			Non-canonical	
Informant	Vocab size (x1,000)	Canonical	Passive	Causative
JA16	4.7	2/5 (.4)	0/6 (0)	0/2 (0)
JA19	4.6	3/5 (.6)	1/6 (.17)	0/2 (0)
JA11	3.0	4/5 (.8)	1/6 (.17)	0/2 (0)
JA20	4.1	5/5 (1.0)	2/6 (.33)	0/2 (0)
JA18	5.1	5/5 (1.0)	3/5 (.5)	0/2 (0)
JA09	5.4	5/5 (1.0)	3/5 (.5)	0/2 (0)
JA15	5.0	5/5 (1.0)	4/6 (.67)	0/2 (0)
JA04	9.0	5/5 (1.0)	4/6 (.67)	0/2 (0)
JA22	6.2	5/5 (1.0)	6/6 (1.0)	0/2 (0)
JA08	6.8	5/5 (1.0)	2/6 (.33)	1/2 (.5)
JA17	5.8	4/5 (.8)	4/6 (.67)	1/2 (.5)
JA06	6.9	5/5 (1.0)	4/6 (.67)	1/2 (.5)
JA05	7.7	4/5 (.8)	3/5 (.5)	2/2 (1.0)
JA14	6.4	5/5 (1.0)	2/6 (.33)	2/2 (1.0)
JA21	6.8	5/5 (1.0)	5/6 (.83)	2/2 (1.0)
JA07	8.1	5/5 (1.0)	6/6 (1.0)	2/2 (1.0)
JA12	8.8	5/5 (1.0)	6/6 (1.0)	2/2 (1.0)
JA10	9.0	5/5 (1.0)	6/6 (1.0)	2/2 (1.0)
JA01	9.7	5/5 (1.0)	6/6 (1.0)	2/2 (1.0)
JA02	10.1	5/5 (1.0)	6/6 (1.0)	2/2 (1.0)
JA13	11.2	5/5 (1.0)	5/6 (.83)	2/2 (1.0)
JA03	12.7	5/5 (1.0)	6/6 (1.0)	2/2 (1.0)
NS control	11.3	5/5 (1.0)	5/5 (1.0)	2/2 (1.0)

Relationship between vocabulary size and acquisition of argument mapping. Table 2 and 3 above show that all learners have acquired canonical mapping and use it fairly accurately even in the lower vocabulary size range. On the other hand, the relationship between vocabulary size and non-canonical mapping (Table 2) is only clear with psych verbs, that is, you need a high vocabulary size (greater than 8,800) to accurately use them. On the other hand passives (Table 3) appear to satisfy PT's emergence criterion when vocabulary size is 4,100 or greater, but are used more accurately when vocabulary size is 5,000 or greater. However, causatives seem to require a higher vocabulary size, which, by itself, is no guarantee that this mapping is

acquired. For instance informant JA04 (Vocabulary size 9,000) shows no sign of emergence for this mapping.

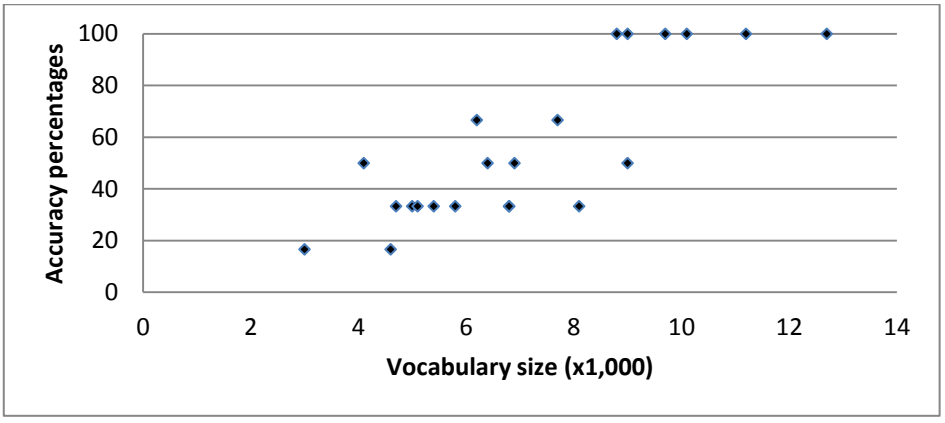


Figure 4. 22 informants' vocabulary size and accuracy rate of lexically non-canonical mapping[13].

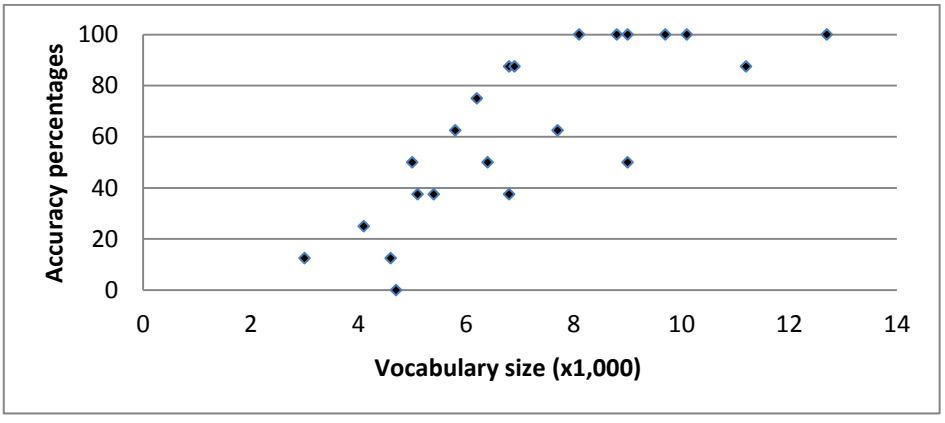


Figure 5. 22 informants' vocabulary size and accuracy rate of structurally non-canonical mapping.

Overall distribution percentages of lexically non-canonical mapping are shown in Figure 4 against the informant's vocabulary size. Figure 5 does the same with structurally non-canonical mapping. As regards lexically non-canonical mapping, in Figure 4, the 8,800 words point seems to divide informants into two distinct groups: the ones above 8,800 with 100% ac-

[13] In Figure 4, there are 21 diamonds representing 22 informants. This is because two informants of the same vocabulary size achieved the same accuracy percentage (i.e., vocab size 6,8k with 33% accuracy). Thus one diamond represents two informants.

quisition and the others with less clear correlations between vocabulary size and acquisitional level. Since a 5,000–6,000 vocabulary size range is deemed to characterise successful university students of undergraduate courses in English-speaking universities, surprisingly such informants achieved just above 30% accuracy with lexically non-canonical mapping. Only English L2 speakers with a vocabulary size of over 8,800 managed the lexically non-canonical mapping well. Compare the translation produced by JA22 (vocabulary size 6,200) with the one produced by JA03 (vocabulary size 12,700). JA22's sentence exhibits wrong argument mapping (parallel examples are found in Appendix A).

(7) JA 22: *The explanation of Teacher, Yamada is confused.*[14]

(8) JA 03: *Professor Yamada's explanation always confuses his students.*

Accuracy of structurally non-canonical mapping, in Figure 5, shows, with few exceptions, a tight relationship with vocabulary size up to 8,100 words. Beyond this point informants reached 100% or close to 100% accuracy. This indicates that English L2 learners learn structurally non-canonical mapping gradually as they increase their vocabulary size. In order to test the strength of the relationship between vocabulary size and lexically/structurally non-canonical mapping, a Pearson correlation test was performed. Note that the test was applied to informants whose lexical size is up to 8,100 because beyond this point the informants hit the maximum accuracy rate (with one exception: a vocabulary size of 9,000 and about 50% accuracy). Statistical results are shown in Table 4. Both types of non-canonical mapping showed statistically significant results with the one-sided Pearson test. However, the p-value of structurally non-canonical mapping is 0.00012 while that of lexically non-canonical mapping is 0.032. This indicates that the strength of correlation is much higher for structural than lexical non-canonical mapping.

Table 4. Pearson correlation between vocabulary size and accuracy of non-canonical mapping.

	n	df	Pearson's r value	p-value (1 sided)
Lexically non-canonical mapping	15	13	0.49	0.032
Structurally non-canonical mapping	15	13	0.81	0.00012

[14] The source sentence is: "*Yamada-sensei-no setsumei-wa itsumo gakusei-o konran-saseru*" (Yamada-teacher-GEN explanation-TOPIC always students-ACC confuse-PASSIVE).

It can be assumed that structurally non-canonical mapping relates more closely to vocabulary development. I interpret this result as follows. Structurally non-canonical mapping such as that taking place in passive and causative constructions have a common specified syntactic frame and can be, therefore, constructed more predictably by the learner. On the other hand, lexically non-canonical mapping involves specific verbs. From the learning point of view, there is no systematic way of identifying a set of such verbs *a priori*. Instead, learners have to learn verb features (i.e. argument specifications) one verb at a time. This may be why some learners with a large vocabulary are still unable to construct sentences with many intrinsically lexical unaccusative and psych verbs. Since most verbs in the study were selected from the first band of the English frequency list, it is evident that to know a verb's meaning is different from knowing how to use that verb in its specific syntactic frame.

Conclusion

This cross-sectional study examined the acquisition of argument mapping including both canonical and non-canonical mapping based on PT's Lexical Mapping Hypothesis and, secondly, it attempted to measure the relationship between learners' vocabulary size and the acquisition of canonical and non-canonical mapping. The main results may be summarised in four points:

1. Canonical mapping precedes all non-canonical mapping, as predicted by the Lexical Mapping Hypothesis.
2. Structural non-canonical mapping relates closer to developmental stages than lexical non-canonical mapping.
3. Regarding lexical size and syntactic ability with different verb types, only a large vocabulary size (above 9,000) may predict the grammatical ability to produce any type of non-canonical mapping. Both informants with small and medium-sized vocabulary showed problems with non-canonical mapping.
4. The order of difficulty in each non-canonical subset is as follow:
   For lexical non-canonical mapping: (alternating) unaccusative > psych verb. For structural non-canonical mapping: Passive> Causative

Thus, the ability to successfully produce non-canonical mapping seems to characterize advanced syntactic development. On the other hand, only the highest levels of vocabulary size appear to be sensitive to advanced syntactic development. Even a fairly large vocabulary (up to 9,000) does not guarantee a parallel syntactic development. This requires further confirmation particularly in relation to psych verbs and causatives (which were not numerous in the present study), as well as cross-linguistic validation. From the learning and teaching point of view an awareness of the subtle role played by the

range of non-canonical mappings and the difficulties faced by learners in using them may help towards better planning of discourse interventions and practice in language development.

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Appendix A

Examples of translation task used in the study with example answers by JA03 (vocabulary size 12,700) and J11 (vocabulary size 3,000).

Quest. No.	日本語の文	動詞	英語の文
2	私の犬が娘の人形をこわした。	break	JA03: My dog broke my doll. JA11: My dog breaked my doutear's doll.
6	山本さんの猫が、私の鳥を殺した。	kill	JA03: Yamamoto's cat killed my bird. JA11: My bird killed by Yamamoto's cat.
9	私は、いつも店のドアを７時にしめる。	close	JA03: I always close the door of my shop at 7. JA11: I close the door at 7.
10	猫が木から落ちた。	fall	JA03: A cat fell off the tree. JA11: Cat's fall down by tree.
13	トムのプレゼントは、たいへん私を喜ばせた。	please	JA03: I was very pleased with Tom's gift. JA11: I pleased by Tom's present.
14	この店のドアは、いつも閉まっている。	close	JA03: The door to the shop is always closed. JA11: door's closed that store.
15	そのニュースを聞いて、私は、とても混乱した。	confuse	JA03: I was very confused after hearing the news. JA11: I confused about that news.
16	この時計は、壊れている。	break	JA03: This watch is broken. JA11: This watch breaked alrady.
17	庭の木が倒れた。	fall	JA03: A tree in our yard fell. JA11: fall in down gerden tree.
18	母は、毎日私にお皿を洗わせる。	wash	JA03: My mother makes me wash the dishes every day. JA11: my mother
20	トムは、メアリーに殺された。	kill	JA03: Tom was killed by Mary. JA11: Tom killed by Mary.
22	水は、０度で凍る。	freeze	JA03: Water freezes at 0 degree. JA11: Water freeze 0°.
25	わたしは、ボスに毎日８時まで仕事をさせられる。	work	JA03: I am made to work until 8 by my boss every day. JA11: I had work at 8 every day by my boss.

Teaching English to young learners

Kristin Kersten
Andreas Rohde

Introduction

Teaching an L2 to young learners requires specific teaching approaches. Whereas abstract rule representation is a minor issue for young children, the communicative context is of vital importance. For this reason, approaches based on the principle of "using English to learn it" are preferable to more traditional approaches relying on the credo of "learning English to use it". Based on these assumptions, this article first addresses overall objectives of early second language learning, different learning scenarios, and age related-issues, before the necessary prerequisites for successful L2 learning, such as input, interaction, output and individual factors are highlighted. As a conclusion to the previous sections, the final part discusses teaching principles and means of providing input and interaction which have proven particularly useful for young learners.

Objectives of early foreign language teaching

The *Common European Framework of Reference* (Council of Europe 2001) defines *intercultural communicative competence* as the main goal of language learning across European countries and their educational policies. Intercultural communicative competence integrates linguistic competence (the four skills focussed on in traditional language teaching, i.e. reading, writing, listening and speaking) with social and cultural competences (Doyé 1999). Communicative competence has been described as a combination of *grammatical competence*, i.e. implicit knowledge about the lexicon, phonology, morphology and syntax of a language; *discourse competence*, i.e. the ability to create coherent text from single phrases; *sociocultural competence*, i.e. knowledge of communicative rules and conventions that apply to the specific cultural group and its societal structures, and *strategic competence*, a cognitive skill which allows learners to use different ways of expression and to change channels of communication if they lack the adequate form in their current state of interlanguage (Savignon 2001). In a nutshell:

> communicative competence extends to both knowledge and expectation of who may or may not speak in certain settings, when to speak and when to remain silent, whom one may speak to, how one may talk to persons of different statuses and roles […]. (Hymes 1972:279)

Intercultural competence, on the other hand, involves some factual knowledge about the target culture/s, social and communicative skills as well as attitudes which enable communication and understanding between members of different cultures (e.g. Byram 1997). Intercultural communicative competence can only be attained by learners of English when they are provided with sufficient opportunities to encounter the language in communicative contexts. Research increasingly shows that an early start is helpful for these goals.

> Language competencies are part of the core of skills that every citizen needs for training, employment, cultural exchange and personal fulfilment […] It is a priority for Member States to ensure that language learning in kindergarten and primary school is effective, for it is here that key attitudes towards other languages and cultures are formed, and the foundations for later language learning are laid, […] **in particular by teaching at least two foreign languages from a very early age**. (European Commission 2003: 7; bold print: highlighted by the authors)

In Europe, there is some dissatisfaction with mainstream education and the foreign language skills which are attainable in the regular educational programmes. An early start and a stronger focus on bilingual learning (Burmeister 2006) or *content and language integrated learning* (CLIL, Marsh & Langé 2000) have been suggested to remedy this situation. This is why an increasing number of both bilingual kindergarten and primary school programmes are implemented in order to enhance student opportunities to gain intercultural communicative competence and appropriate linguistic skills (Kersten et al. 2010a).

Different scenarios

In this article we look at young children from 3 to 10 years of age and in two fundamentally different language learning/teaching scenarios: kindergarten and primary school. Educational programmes in Europe differ widely with respect to the age at which pre-primary and primary education begin. In Germany, for instance, the term *kindergarten* refers to an informal setting in which the children do not receive any formal teaching and, for that matter, no formal second language teaching. This is true of many other forms of European preschool education. In bilingual preschools, which introduce English as a foreign language before formal L2 training in primary or secondary education, there is usually no curriculum for the second language.

Rather, English is used as a medium of communication by L1 English educators and accompanies the everyday activities of the preschoolers, such as having meals, taking walks, making objects etc. Our views on this scenario is based on our own research in kindergartens from European countries such as Germany, Belgium and Sweden (Kersten et al. 2010a); however, it is also applicable to kindergarten and preschool scenarios in other countries which involve formal teaching according to a specific curriculum.

There are many different types of English primary school programmes throughout Europe. In this article we discuss two specific programmes in Germany. The first one, referred to as *early start,* points to the fact that English is now introduced three and a half years earlier than before when the nation-wide start was grade 5 in Germany. In two steps, the start for English language teaching was first set at grade 3 in the early 2000s and was shifted to the second half of the first year in the Bundesland of North-Rhine Westphalia and even to the onset of primary school in Baden-Württemberg in 2008, offering the 6 to 10-year-olds two hours of English per week from grades 1 to 4. The second type is *content-based English teaching*, i.e. programmes in which one or more subjects are taught through the medium of English. Such programmes are referred to as CLIL (Marsh & Langé 2000) or, if more than 50% of the curriculum is taught in the L2, as immersion programmes (Genesee 1987). For programmes where every subject, except for the ambient language, is taught in English the share of English amounts to approximately 70%. While still exceptional in Europe, such programmes have been the focus of much research interest (Burmeister 2006, Rohde & Lepschy 2007, Kersten et al. 2010a). Because of the intensity of such programmes, research results on young children's language learning process reveal interesting insights and consequences for the teaching process, which may be transferable to other types of educational programmes (Wesche 2002).

The role of age

The title of this article presupposes that young learners should be taught differently from older learners, as the learning processes involved may be different. Learners aged 3 to 10 have as yet not acquired some of the strategies that older learners are able to develop. Older learners have written language as additional input and benefit from a greater metalinguistic awareness, and may therefore be better monitor users than younger learners (Krashen 1982).

The view that young learners learn better or faster than their older peers in general is not tenable: "[I]t is no longer possible to accept the view that younger L2 learners are in all respects and at every stage of learning superior to older learners […]" (Singleton & Ryan 2004:226). However, numerous studies have found that in the long run child learners "are more likely to reach higher levels of attainment in both pronunciation and grammar" than

older learners (Ellis 2008:31; Long 2007). Another reason which justifies an early start for L2 learning lies in the children's "huge learning potential" (Cameron 2001, xii) and in the fact that our own research shows that both bilingual kindergarten and primary school programmes can be immensely successful without placing a burden on the children (Kersten et al. 2010a). Especially the bilingual kindergarten scenario comes close to a naturalistic environment where children are exposed to the L2 informally in everyday contexts and activities. Irrespective of whether younger learners are better language learners (which is not addressed in this article), early introduction to L2 English in kindergarten and primary school paves the way for introducing a third language when learners enter the high school system. At that point their L2 English proficiency allows them to start a further language in lieu of English which, in the traditional system, would only have been introduced by then.

Input / Interaction / Output

It has been shown, especially in immersion contexts, that rich and meaningful input (Gass 2003) may result in above average listening comprehension; however, input alone does not sufficiently foster the learners' productive skills (Cameron 2001:41). It has repeatedly been pointed out that children's comprehension precedes their production of the language (e.g. Edelenbos et al. 2006). However, research suggests that all three components, input, interaction and output are necessary for successful second language learning. Long (1996, 2007) shows that interaction in the shape of negotiation of meaning can be facilitative for the learning process as learners may receive both positive and negative evidence to structural elements of the L2. Furthermore, interaction, especially in the guise of negotiation, can foster vocabulary learning and help learners develop communicative strategies (Gass 2003).

Swain's research (1985, 1995) suggests that input does not simply turn into intake through interaction. Rather, learners have to be given the opportunity to produce the L2. On the one hand, it may be intuitively clear that practising linguistic structures is a necessary prerequisite in order to enhance one's L2 skills. On the other hand, Swain's *Output Hypothesis* also includes three further essential functions: a. the noticing/triggering function which says that L2 production caters to consciousness raising and creates an awareness in the learners for gaps in their interlanguage system, b. the hypothesis-testing function, according to which the learners have the opportunity to experiment with language structures, and c. the metalinguistic function which may be essential for older learners as it enables them to reflect on linguistic structures, and discuss or analyse them explicitly (Swain 1995:128).

In L1 acquisition and naturalistic L2 acquisition, all three components, input, interaction and output, are usually given. However, they are rarely

warranted in formal L2 learning contexts due to time constraints and, more often than not, a lack of theoretical knowledge of L2 learning on the part of the educator or teacher. A first evaluation of teaching English at primary school in 2006 in North Rhine Westphalia revealed that teaching was extremely teacher-centered; teachers, on average, talked for 90% of the time (Engel et al. 2009).

As mentioned above, bilingual kindergartens in which one or more groups are looked after by both an L1-speaking and an English-speaking educator, provide ideal opportunities for rich input, interaction and output. Unlike in the classroom scenario, the three components do not have to be arranged deliberately; they are naturally given through the routines of the kindergarten. It would be a great opportunity for traditional classroom scenarios if they emulated these beneficial context factors from naturalistic and bilingual language learning (Festman & Kersten 2010).

Quality and quantity of input

In a kindergarten context, the children pick up the L2 in authentic, everyday activities and contexts. All exchanges and interactions with the native speakers of English genuinely serve mutual understanding and are not targeted towards particular grammatical structures (cf. Rohde 2005:157). The children's authentic activities are accompanied by the L2, there is no artificial and arranged context, in contrast to schools where there is a fixed curriculum and time frame. From that point of view, language learning in a bilingual kindergarten is not fundamentally different from a naturalistic L2 acquisition scenario. From a quantitative point of view, the children have the opportunity to receive L2 input at least for half the day, given that most of the children in Germany attend the kindergarten from 8 am to 1 pm. A similar quantity of L2 input can only be provided later in a content-based language teaching programme at primary school. However, the quality of the input is different then: Whereas the children acquire basic interpersonal communicative skills (BICS) through the daily routines in kindergarten, in a content-based teaching programme, the learners need to be provided with cognitive academic language skills (CALP) (Cummins & Swain 1986).

Research in bilingual preschools shows that both the quality and the quantity of L2 input, i.e. duration and intensity of L2 contact time, have a significant effect on vocabulary and grammar comprehension at a very young age (3–6, Weitz et al. 2010). The quality of L2 input was measured through an observation checklist geared to principles of language use by the L2 educators. These principles, based on best practice observations in the preschools and on well-known teaching strategies within communicative language teaching (Richards & Rodgers 2001:153–177), are described in more detail below.

In order to enhance the English input for children in both kindergarten and primary level, it is desirable to also include, if possible, L1 English-speaking children in the classroom: our experience in immersion schools shows that the monolingual children appear to be more motivated to learn the L2 with English-speaking peers than with an adult or adults. The relationship among the children is symmetrical and more intimate as the peer group shares similar interests and beliefs. The relationship between an adult and a child, on the other hand, is asymmetrical. The adult is the child's supervisor; interests and beliefs differ so that interactions between child and adult cannot be the same as between child and child (Friederici 2004:48).

Individual factors

The process and the attainment in language learning are also influenced by personal traits, skills and aptitude of each individual learner (e.g. Dörnyei 2005). From a teacher's perspective, it is important to keep these individual differences in mind to create a stimulating and diversified learning environment in the classroom. Factors found to be correlated to the success of language learning are, among others:

- intelligence (IQ) (Dörnyei 2005)
- aptitude, indicated e.g. by working memory, phonological sensitivity, or skills in grammar analysis (Skehan 1998)
- different learning styles, e.g. perception-based, such as visual, aural or kina-esthetic learners, or method-oriented such as concrete, analytical, communicative or authority-oriented learners (Nunan 1999)
- motivation to learn the language, e.g. instrumental motivation which pursues an immediate learning goal, or integrative motivation, which aims at near-native competence and a degree of identification with the cultural community of the foreign language (Gardner 2001)
- social factors, such as identification with a social, cultural or ethnic group (Pavlenko 2002)
- learner beliefs, i.e. expectations on content and structure of the programme, and convictions of which strategies are most suitable to their progress (Horwitz 1999)
- the age at which the learning process begins: an early start promotes the level of ultimate attainment (Muñoz & Singleton 2011; Singleton & Ryan 2004); however, in classroom contexts, older learners may have an advantage over younger learners in the rate of learning (Singleton & Ryan 2004: 72–84)
- the amount of L1- and L2-use: frequent L2-use combined with infrequent L1-use have been found favourable for pronunciation skills in the L2 (Piske et al. 2001)

Many studies also indicate that other personality traits may be related to the success of language learning, but the results are inconclusive, and personal variables are extremely difficult to control in an experiment (Dörnyei 2005).

All these factors are strongly interrelated with each other: it is not easy to tease them apart and measure them, and each of them may be related to different types of competence or ranges of abilities. It is, however, important for the good language teacher to bear these factors in mind, to get to know the individuals' personality traits and learning styles, and to adjust the teaching methods accordingly.

Principles of teacher-child interaction

Teacher language

Just as the learning process of young children differs from older, cognitively more mature learners, teaching strategies have to be altered to suit more implicit and naturalistic foreign language learning (Kersten et al. 2010b). Weitz et al. (2010) have developed an observational tool for immersion preschool settings for describing differences in the nature and quality of the L2 input and further analysing the effects that these differences may have on the children's L2 development. Input quality turns out to have "a greater impact on the rate of acquisition of receptive L2 grammar knowledge than the mere amount of L2 input per week (input intensity)" (Weitz et al. 2010:37). The comprehension of English grammar was assessed with the help of a grammar test specifically developed for the multilateral EU Comenius Project ELIAS (Early Language and Intercultural Acquisition Studies). This was the first time that English grammar comprehension by bilingual preschoolers in three European countries was tested (Steinlen et al. 2010).

Amount of L2 input

Especially for young children at the beginning of their learning process it is essential to provide a rich, perceptually stimulating learning environment which contains as much linguistic input as possible (e.g. Snow 1989, 1990). Apart from the teaching materials, the teacher in a preschool or foreign language classroom is usually the only consistent linguistic role model to the children (Cameron 2001). Since the hours spent in the classroom are necessarily reduced as compared to a naturalistic ESL situation, the teacher has to make the most of the limited contact time. Therefore, one of the most important features of teacher language is to use language constantly, like an ongoing commentary of every action that occurs in the classroom.

Commenting on every activity also ensures that the input is lexically and structurally rich. With language input restricted to limited topics and recurring activities, such as songs or games, children do generally not have access to the range of linguistic features which covers the whole linguistic

system of the L2. As a result, they have no chance to infer more complex linguistic structures and integrate them into their own interlanguage system. Features which have been described as desirable in early teaching contexts are a high amount of L2 input, guaranteed through the quality of the teacher's language, and frequent exposure to the second language over a long period of time (Edelenbos et al. 2006).

Action orientation

Teaching English at primary level in Germany ideally relies on a teaching concept referred to as action orientation. This originally German concept is comparable to the approach of communicative language teaching (Richards & Rodgers 2001:153ff.) but puts specific emphasis on the different senses involved in the teaching/learning process, and is often referred to as the *head, heart and hand approach* (Jank & Meyer 2002:314ff.). Other than these three senses, there is a further dimension, the linguistic level. This means that students are sensitized towards the expression of their own aims and intentions. Action orientation is supposed to raise student awareness of the effect of their utterances; they may invoke somebody's concrete physical action (*Can you pass me the pen?*) or influence somebody's mental state (*I really like you*). Action orientation that focuses on all four levels – cognitive, emotional, physical and linguistic – has been shown to be a suitable concept once learners are faced with formal teaching and a fixed curriculum (Rohde 2012).

Motherese

For early learners, the teachers may adapt their speech to promote a better understanding of single words and phrases: slower rate, clearer pronunciation, stronger stress and intonation and higher pitch have been observed in teacher language (Håkansson 1986, Griffiths 1990). When language is adapted in such a way, learners have a better chance of understanding word and phrase boundaries, and mapping single forms onto their respective meanings as presented in the context.

Similar features of speech adaptation have been found in the speech mothers or caretakers use to address little children to promote their L1 acquisition. This phenomenon has become known as *motherese* (e.g. Matychuk 2005). While motherese is well suited for very young preschoolers, not all features of motherese work with older learners. An exaggeratedly high pitch, often used to address babies or toddlers, may for instance seem out of place when addressing more mature students.

Gestures, mime and facial expression

Gestures, mime and facial expressions that mimic the content of the utterance are other strategies which usually accompany features of motherese (Snow 1990). They help identify the object or activity in question and provide a different way of establishing a connection between content and meaning. That way, such non-verbal expressions provide a context for the otherwise meaningless linguistic input to the children at the beginning of their learning process.

Contextualisation

Young learners encounter the L2 as a commentary of every activity in the classroom, without understanding every single word due to their limited L2 proficiency. Compared to adults, children are usually much more capable and willing to cope with such a situation, which is natural to them from their L1 acquisition. But children can only build up linguistic competence from the limited L2 input if they are able to make sense of the stream of L2 utterances. In order to create an L2 lexicon and hypotheses about the grammatical structure of the L2, it is vital that learners are able to deduce the meaning of the linguistic input from the context of the classroom situation. In principle, the young learners do not have to understand exactly what the educator/ teacher says, but what he or she means. Understanding the situation, knowing what is going on in the group, is especially important for young children as it guarantees their emotional stability and feeling of safety within the classroom context (Kersten et al. 2010b).

While teachers can draw the students' attention to specific words or phrases by modifying loudness, pitch or other features of the usual intonation patterns, they can provide additional clues to the meaning of an utterance by establishing an easily recognizable context for it. Successful strategies for doing this comprise the use of visual and aural stimuli such as pictures, picture stories, CDs, videos, as well as the use of real objects, and other hands-on materials. Ideally, such a contextualization strategy enables the learner to understand the situation without having to rely on language at all. Like a viewer watching an old-fashioned silent movie, a child makes sense of a given situation by relying entirely on the non-verbal features of the situation at hand (Burmeister 2006).

Preferably, teachers should code the content in as many ways as possible, i.e. use different means of explanation simultaneously, such as, intonation, facial expressions and pictures. That way, they cater to different perceptory channels and learning preferences of the children, so-called *multisensory learning* (Burmeister 2006). Once a solid basis of language competence is established, contextual clues can be reduced.

Scaffolds

Another strategy to promote understanding is *scaffolding* (Peregoy 1991; Snow 1990; Massler & Iannou-Georgiou 2010). Teachers are encouraged to establish classroom routines which are repeated every day providing recurring linguistic structures for the children. Such frequent repetition help the children to quickly build a small repertoire of chunks and phrases in the L2. Scaffolding routines not only give structure to classroom management and activities (Edelenbos et al. 2006), they also enable the children to understand and produce output from the very beginning, which usually motivates them and helps them feel at ease with the foreign language.

Such scaffolds can be either non-verbal signals such as bells or pictures to indicate an activity, routines such as "weather", "date", or "classroom duties", or verbal scaffolds such as recurring phrases, formulaic expressions, rhymes or songs. Even though the children are not able to process phrases word by word, they understand the meaning in its entirety and refine their understanding as the language learning process proceeds.

Task-based and content-based teaching principles

As pointed out repeatedly, it is vital for children's successful language learning that the learning experience takes place in a genuine context (Cameron 2001; Lorenz & Met 1989) with authentic materials (Edelenbos et al. 2006). Such a context is provided when the focus is placed on the meaning rather than on the language form used in the interaction. Task-based activities consist of meaningful tasks, based on meaningful content. The approaches of *Task-Based Language Learning* (Nunan 2004) and *Content-Based Language Teaching* (Richards & Rodgers 2001) pertain to these principles. In such approaches, the language is not the in prime focus of attention. Instead, it is used as a means of communication.

A task has been described as a meaningful content-related classroom activity with a specific goal, objective, or outcome, and the process of communicating meaning (Nunan 2004). It is carried out in the target language with a focus on the theme rather than on the form (Legutke et al. 2009). It should be personalised and adapted to the age and socio-cultural experience of the children. Age appropriateness includes cognitive, linguistic, interactional, metalinguistic involvement, and physical demands, which need to be supported by the teacher using different strategies, such as: contextualisation, well-known routines or terms, method change and adaptation (Cameron 2001). Content, i.e. the academic or non-academic subject matter, should be interesting and cognitively demanding for the learners, and stimulate language learning of the target language. Meaningful content should go beyond a sole focus on language or culture (Met 1999). This is also a pre-

requisite for meaningful interaction with genuine discussions. The classroom discourse is driven by the urge to understand the content matter, which allows for *negotiation of meaning* among the children or between the teacher and the child. In combination with the strategies described above, this is the most important prerequisite to ensure holistic language learning in the classroom (Edelenbos et al. 2006).

Focus on Form

Such meaning-driven interaction also paves the way for different types of form-focussed teacher feedback, which becomes increasingly relevant for older, cognitively more mature learners at more advanced stages of learning (e.g. Lyster & Saito 2010). However, it is possible and desirable to offer age-appropriate measures with a specific linguistic focus also in the work with young learners (Cameron 2001). Strategies that focus on form need not, and should not, be identified with rote learning and grammar drill.

Strategies, such as gestures, pictures, and actions, or verbal explanations, repetitions, paraphrases and lexical networks using related vocabulary already known to the child, are used to help the child remember new words. All these strategies include a certain amount of mental work on the part of the child, which in turn promotes remembering the word in focus (Cameron 2001:84). Grammar teaching can have a place in preschool and primary L2 learning as well. It is argued that due to the cognitive level of young children the focus on grammatical features should be implicit rather than explicit:

> A grammar-sensitive teacher will see the language patterns that occur in tasks, stories, songs, rhymes and classroom talk, and will have a range of techniques to bring these patterns to the children's notice, and to organise meaningful practice. (Cameron 2001:122)

In this way the teacher can raise awareness of grammatical phenomena of the L2 without dampening the children's motivation through meaningless drills.

Phonological awareness is possible and helpful at an early age as well (Edelenbos et al. 2006). Research in L2 phonology has shown that children have an advantage over older learners when it comes to discriminating the different foreign sounds of the L2 (e.g. Piske et al. 2001). Teachers can point out differences and similarities between the two sound systems, and use songs, rhymes and tongue twisters for metaphonological training (Bernhardt & Major 2005).

Recasts, i.e. the correct repetition of a learner's non-target-like utterance, have been shown to be the among the most successful feedback strategies for phonological errors (Lyster & Saito 2010). They are also the most common form of teacher's corrective feedback to oral errors. They can be integrated

in the natural flow of interaction without interrupting the communication and the focus on the content. Other strategies to correct learner errors are explicit correction and prompts, which include metalinguistic clues, clarification requests, elicitation and repetition (Lyster & Ranta 1997). While teachers present the correct form themselves when using recasts or explicit corrections, they encourage the children to modify their own output for self-correction with the help of prompts. All three forms of corrective feedback have been shown to have significant effects on the learners' uptake. However, prompts show the strongest effect, and seem to be especially useful for grammatical errors (Lyster & Saito 2010).

However, these different teaching strategies should be subordinate to the principle of creating genuine and meaningful activities: a stimulating learning environment is more important for the progress of very young learners than cognitive knowledge about the language. From this point of view, there is no difference between a four year-old preschooler or a 10-year-old child at the end of primary schooling.

Conclusions

Introducing a second/foreign language to young children cannot start early enough. There is ample evidence that teaching a second language at both kindergarten and primary school level may be highly effective. However, at primary school where there is a fixed curriculum, teaching concepts and methods must be selected carefully and should not be based on explicit teaching of grammar and a pronounced focus on forms (as opposed to a *focus on form*). This article has discussed a number of general principles (including concepts and methods) that have proven suitable for the teaching of young learners. A particularly effective type of teaching programme are CLIL or immersion programmes. Hopefully, such insights into how young children learn will also inform the teaching of older students, e.g. at secondary level, and shift the emphasis from a primarily explicit focus on grammar, still widespread in schools in Germany and throughout Europe, to a more communication-oriented approach

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Flerspråkiga elevers språkutbildning

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I detta bidrag diskuterar vi situationen för flerspråkiga elever[15] i den svenska skolan med fokus på undervisningen i svenska som andraspråk i grundskolan. I en tillbakablick analyserar vi utvecklingen för ämnet svenska som andraspråk och de stora brister i implementeringen av ämnet som bidragit till dess låga status och svårigheter att nå legitimitet. I detta sammanhang läggs särskild vikt vid ideologiernas makt, bristperspektiv gentemot elever med utländsk bakgrund och olika tolkningar av begreppet likvärdig utbildning. Mot bakgrund av modeller för språkutbildning för elever med majoritetsspråket som andraspråk i andra länder presenteras slutligen tänkbara utgångspunkter för en reformerad och mer differentierad språkutbildning för flerspråkiga elever som i högre grad än tidigare inriktas mot denna elevgrupps högst varierande behov av såväl mer allmänna som mer specifikt skolrelaterade språkfärdigheter.

Skolan och flerspråkigheten

Att döma av officiella rapporter från Myndigheten för skolutveckling (2004), Skolverket (2005, 2011), och Skolinspektionen (2010) och ett växande antal avhandlingar (Economou 2007; Granstedt 2010; Gruber 2007; Haglund 2005; Lahdenperä 1997; Otterup 2005; Parszyk 1999) är den svenska skolan dålig på att tillvarata och värdera flerspråkighet och flerspråkiga elevers kunskaper och erfarenheter. I stället förknippas flerspråkigheten ofta med problem och brister. I en kvalitetsgranskning med inriktning mot förskolors och skolors insatser för språk- och kunskapsutveckling för barn och elever med annat modersmål än svenska (Skolinspektionen 2010) konstaterar man t.ex. att personalen i många fall saknar kunskap om barnens bakgrund och att man

[15] *Flerspråkig* elev är en term som ofta används i myndighetssammanhang och i utbildningspolitiska texter samt även i svenskspråkig forskningslitteratur. Termen refererar till elever i skolan med annat modersmål än svenska eller annat modersmål utöver svenskan, dvs elever med två modersmål.

i liten utsträckning i verksamheten i förskolan och undervisningen i skolan knyter an till barnens erfarenhetsvärld. Dessutom präglas arbetet i många förskolor i förhållande till flerspråkiga barn av inställningen att det är trygghet som måste prioriteras, vilket leder till att förskolans uppdrag att stimulera och utmana de flerspråkiga barnen i deras lärande inte alltid får tillräckligt utrymme.

Att man i förskolan och under skolans tidiga år inte lägger tydligt fokus på att stimulera de flerspråkiga barnens språk- och kunskapsutveckling kan få mycket negativa konsekvenser för elevernas lärande på längre sikt, då utvecklingen av skolrelaterade språkfärdigheter är en långsiktig process som tar många år i anspråk (Cummins 2001; Thomas & Collier 2002). Problemet kan mycket väl ligga i att lärarna inte har tillräcklig kunskap om hur man kan arbeta språkutvecklande med eleverna och på ett pedagogiskt sätt ta vara på och bekräfta deras skiftande erfarenheter, frågor som ges mycket litet utrymme i de flesta lärarutbildningar idag (Carlson 2009). Konsekvenserna av denna brist på tidiga insatser talar sitt tydliga språk i skolstatistiken där elever med s.k. utländsk bakgrund[16] konsekvent är överrepresenterade bland elever som har låga betyg och inte når målen (Skolverket 2005, 2011).

Men denna situation är på intet sätt ny. Redan på 1980-talet hördes kritiska röster från många lärare och forskare mot vad man menade var skolans bristfälliga bemötande av elever med andra modersmål än svenska (Tingbjörn 2004). Man ifrågasatte inte minst den stödundervisning i svenska som andraspråk som bedrivits sedan slutet av 1960-talet som i många avseenden visat sig bristfällig och betraktades som en högst perifer, kortsiktig och lågprioriterad verksamhet i många skolor om den över huvudtaget erbjöds.

Enligt andraspråksforskarna Mohan, Leung och Davison (2004) präglades bemötande av minoritetselever i många länder vid denna tid och även framgent av okunniga och naiva föreställningar om dessa elevers behov som kan sammanfattas i följande punkter:

- Language minorities will acquire an education and a second language easily and quickly simply by exposure.
- All that language minorities need is a basic course in the second language.
- The education of language minorities can safely be isolated from the mainstream of education.
- Educational changes for the benefit of the language minority students will happen automatically or by the efforts of second language teachers or bilingual teachers acting without curricular change, institutional support or professional development (Mohan et al. 2004:2).

[16] *Elever med utländsk bakgrund* omfattar enligt Skolverkets terminologi elever födda i och utanför Sverige med båda föräldrarna födda utanför Sverige.

I Sverige hade även modersmålsundervisningen, som genom den s.k. hemspråksreformen infördes 1977 i svenska skolor, trots goda intentioner visat sig ha stora implementeringsproblem och bedrevs i stor utsträckning på undantag (Hyltenstam & Tuomela 1996). Generellt var kunskapen om elever med utländsk bakgrund med andra modersmål än svenska och deras utbildningsbehov skrämmande låg i skolorna vid denna tid och förbehållen en liten grupp utbildade lärare i svenska som andraspråk och modersmål. I övrigt präglades förhållningssättet i skolorna gentemot denna elevgrupp av ett bristtänkande som starkt påverkade undervisningen i både modersmål och svenska som andraspråk.

Svenska som andraspråk som eget ämne

I en strävan att bryta den enspråkiga och monokulturella hegemoni som så starkt missgynnat många flerspråkiga elever i den svenska skolan under många år infördes 1995 svenska som andraspråk som eget ämne med egen kursplan, i alla avseenden likställt med det traditionella svenskämnet (Skolverket 2011/12a, b) vilket resulterade i en hög grad av parallellitet mellan ämnena. Förespråkare för denna lösning menade att man härigenom gav erkännande åt den språkliga och kulturella mångfalden, vilket skulle leda till en höjd status och professionalisering av ämnet svenska som andraspråk som inte längre skulle betraktas som en kortsiktig stödåtgärd.

Införandet av det nya svenskämnet visade sig dock inte erbjuda den idealiska lösning på frågan om minoritetsspråkelevernas rätt till likvärdig utbildning som många hade hoppats på. Ganska snart stod det klart att de missförhållanden som rapporterats under de år som ämnet haft status som stödämne bestod även efter reformens genomförande. Enligt den kartläggning som Myndigheten för skolutveckling (2004) senare genomförde fanns många tänkbara orsaker till ämnets svaga ställning på skolorna som t.ex. bristande kompetens hos skolledare och lärare, skolans monokulturella och enspråkiga norm, synen på flerspråkighet som brist snarare än resurs, fortsatt stödtänkande, dålig implementering av intentionerna i styrdokumenten, otydliga styrdokument, svagt implementeringsstöd för lärarna, godtyckliga beslut om vilka som ska läsa ämnet, samt brist på tillförlitliga och valida diagnosinstrument.

I kartläggningen, som baserades på ett mycket begränsat underlag från tre skolor, menade man att ämnet svenska som andraspråk var segregerande och skulle tas bort för att ersättas av ett nytt, vidgat, svenskämne för alla i skolan. Följande är exempel på frågor som inte berördes i kartläggningen, men som givetvis måste beaktas i en mer grundläggande och seriös analys som underlag för framtida beslut och reformer: Hur tolkas och implementeras kursplaner i svenska som andraspråk på det lokala planet? Hur påverkas attityder och värderingar i skolan av makt- och dominansförhållanden och rådande

ideologier i majoritetssamhället? Hur ser man på flerspråkighet och mångfald i svenska skolor? Hur påverkar rådande attityder elevernas uppfattning om ämnet svenska som andraspråk och deras benägenhet att vilja läsa ämnet? Vilka möjligheter har man att inom överskådlig framtid i nytt vidgat svenskämne tillvarata de flerspråkiga elevernas högst skiftande behov av språkundervisning mot bakgrund av svensklärarnas kompetens i svenska som andraspråk? Hur organiseras andraspråksutbildning i länder där minoritetsspråkselever når goda resultat?

Mot bakgrund av de missförhållanden som påpekades i kartläggningen och som även dessförinnan och fortlöpande rapporterats i en rad andra sammanhang är detta exempel på aspekter som förtjänar en särskild belysning och som kan bidra med viktiga förklaringsgrunder till ämnets etableringsproblem, bristande legitimitet och låga status liksom till de flerspråkiga elevernas i många avseenden otillfredsställande skolsituation mer generellt.

Ideologiernas makt

I en rapportserie där skolsituationen för elever med utländsk bakgrund i olika OECD-länder belyses (Taguma et al. 2010) påpekar man att intentioner och verklighet i detta sammanhang inte alltid går hand i hand. Även om Sverige, till skillnad från många andra länder, inte minst i Europa, har genomfört flera viktiga utbildningspolitiska reformer med syftet att stötta, ta vara på och utveckla den språkliga mångfalden i skolan, kan man, bl.a. till följd av bristande implementering på olika nivåer, konstatera stora brister i det svenska systemet, vilket också påpekas i OECD-rapporten:

> Sweden has already designed a number of measures on migrant education, but is facing a number of challenges related to implementation, especially with a highly decentralised system. (Taguma et al. 2010:7)

Som Creese och Leung (2003) påpekat i förhållande till skolsituationen för flerspråkiga elever i Storbritannien, är relationen mellan officiell politik, styrdokument och implementering inte linjär. Utbildningsreformer får inte alltid avsedd effekt på ett enkelt sätt, dvs. ”uppifrån och ner”. I stället sker implementeringen av de intentioner som ligger bakom politiska beslut genom tolkande processer på olika nivåer. Det innebär att det är i specifika kontexter och genom lokala tolkningar som de officiella styrdokumenten filtreras. Denna process påverkas i sin tur av institutionella, professionella och individuella erfarenheter, värderingar och föreställningar. Skolpolitikers, skolledares och lärares svar på och representationer av styrdokumentens intentioner är ett resultat av såväl professionella överväganden som ideologiska strömningar i samhället både på ett övergripande och på ett mer lokalt plan. När lokala attityder och förhållningssätt avviker från den officiella politiska hållningen och om professionaliteten hos lärarna inom ett

område brister är risken stor att oreflekterat ”sunt förnuftstänkande” tar överhanden och att intentionerna bakom reformerna inte förverkligas (jfr Hyltenstam & Milani 2012).

Vad man inte i tillräcklig utsträckning tog i beaktande vid införandet av det nya ämnet var att skolans förhållningssätt gentemot minoritetselever inte enbart är en skolangelägenhet utan måste ses mot bakgrund av såväl makt- och dominansförhållanden som rådande ideologier, attityder och värderingar i majoritetssamhället. Så länge man i samhället i övrigt inte betraktar integration som ett resultat av en ömsesidigt berikande process av givande och tagande där mångfalden värderas och bejakas utan som minoritetsmedlemmarnas ensidiga anpassning till majoritetssamhället, kommer olikhet och avvikelser från majoriteten att ses som en brist. Följaktligen blir skolans roll då att rätta till denna brist och påskynda en utveckling mot ”det normala”.

När majoritetssamhället sätter gränser för vad som ryms inom ”svenskheten” får det konsekvenser också för de utbildningssatsningar som riktas mot minoritetseleverna. I en skola där det i första hand handlar om att bli ”riktigt svensk” och inte sticka ut, kan deltagande både i undervisning i svenska som andraspråk och modersmål uppfattas som en bekräftelse på att man avviker och är annorlunda och därför komma i konflikt med en strävan att få höra till och bli accepterad. Samhällets och skolans betoning av en traditionell homogen svenskhet kan alltså leda till att minoritetseleverna väljer att avstå från att delta i undervisning som kan främja deras tvåspråkighet och allmänna skolframgång. Om skolan i stället genomsyrades av positiva värderingar till kulturell och språklig mångfald, skulle åtgärder för att främja tvåspråkig utveckling snarare bli en positiv bekräftelse på de unika möjligheter som tillhörighet i flera kulturer och färdigheter i flera språk för med sig.

Arbetet i klassrummet återspeglar på många sätt lärarnas syn på sig själva, eleverna och den uppgift de står inför. Lärarnas attityder och outtalade förväntningar spelar därför en avgörande roll för elevernas möjligheter att lyckas i skolan och förverkliga sina mål. Inga reformer i världen rår över värderingar, attityder och förhandsuppfattningar som i lika hög grad kan bidra till att uppmuntra, stötta och stärka elever som att hålla tillbaka, tysta och marginalisera dem. Det är därför särskilt viktigt att alla lärare såväl som övrig personal reflekterar över sina många gånger omedvetna attityder och värderingar och över hur t.ex. etnocentricitet och kulturella stereotypier kan påverka synen på och bemötandet av eleverna. En positiv syn på mångfald och en gemensam strävan att ta tillvara och bygga på alla elevers varierande erfarenheter är en förutsättning för framgång i undervisning för elever med annan språklig och kulturell bakgrund än den homogent svenska. Det innebär att man ser elevernas skiftande kunskaper, flerspråkighet och varierande sociala och kulturella erfarenheter och värderingar som en resurs och tillgång som berikar undervisningen.

Den enspråkiga normen

Det bristtänkande som enligt många svenska studier karakteriserat synen på elever med annan språklig och kulturell bakgrund än den homogent svenska (se t.ex. Economou 2007; Granstedt 2010; Gruber 2007; Haglund 2005; Lahdenperä 1997; Parszyk 1999) bekräftas i internationell forskning där den ojämlika och många gånger diskriminerande behandlingen av minoritetselever i skolsystem världen över är väl dokumenterad (Cummins 2001; Harklau 1994; Pacheco 2010; Valencia 1997; Vollmer 2000). Utifrån ett sådant bristperspektiv framställs minoritetseleverna, trots sina rötter i och rika erfarenheter av andra språk och kulturer, som problemelever med begränsad kapacitet och låg motivation eftersom de saknar det symboliska kapital som majoritetskulturen värderar.

Sådana uppfattningar och förhållningssätt i förhållande till språklig och kulturell mångfald bör ses mot bakgrund av ideologier om den språkliga homogenitetens överlägsenhet. I det sociopolitiska klimat som sedan länge dominerat stora delar av västvärlden har nationella språk, enspråkighet och monokulturalitet idealiserats medan språklig mångfald utmålats som hot mot utveckling, integration och social kontinuitet och koherens (jfr May 2001; Milani 2007; Pavlenko 2002). Det handlar här om attityder och värderingar som ofta är omedvetna för individerna själva och sällan ifrågasätts då de betraktas som självklara (Hyltenstam & Milani 2012).

Internationell forskning visar också att det finns en stark strävan mot "normalisering" eller "mainstreaming" av minoritetselever som tycks gå hand i hand med en syn på integration som minoritetsmedlemmarnas ensidiga anpassning till majoritetssamhället och negativa attityder gentemot icke-majoritetsspråkstalare (Vollmer 2000). Detta kan leda till en stigmatisering av flerspråkiga elever i skolsystemet både på ett mer övergripande plan och i den vardagliga skolpraktiken.

Den kanadensiske språkforskaren Stephen Talmy (2008, 2009) har t.ex. i den nordamerikanska kontexten vittnat om sådana tendenser utifrån en kritisk etnografi som han genomfört på en gymnasieskola på Hawaii med många elever med engelska som andraspråk. Talmy kunde där observera hur andra generationens andraspråkselever själva spelade en mycket aktiv roll i en återkommande projektion av vad han kallar en mainstream/ESL-hierarki[17] genom ständiga uttryck för negativa värderingar av undervisningen i engelska som andraspråk (ESL) som ett sätt att ta avstånd från en lågstatus-identitet som ESL-elever och förneka en samhörighet med mindre språkkunniga nyanlända elever refererade till som FOBs, dvs. "fresh off the boat" eller "just inlandstigna" som i den hawaiianska kontexten hänvisar till det faktum att många invandrare anländer med båt från Sydostasien.

[17] ESL = English as a Second Language

Förenklade kategoriseringar

Talmy (ibid.) sätter här fingret på ytterligare en viktig förklaring till att ämnet svenska som andraspråk haft svårt att vinna legitimitet i den svenska skolan, nämligen den kategorisering i första- och andraspråk som utgör själva grunden för ämnets berättigande. Man kan hävda att en sådan kategorisering av elever var adekvat och relativt okomplicerad då ämnet fick status som eget ämne i mitten av 1990-talet. Med tiden har den dock blivit mer problematisk. På 1980- och 1990-talen då en majoritet av eleverna med utländsk bakgrund i den svenska skolan var födda utomlands, var behovet av en särskild svenskundervisning för denna elevgrupp i allmänhet uppenbart i samband med skolstarten oavsett om den ägde rum i sjuårsåldern eller senare. För dessa elever var svenska helt klart ett andraspråk, ett faktum som sällan ifrågasattes av varken eleverna själva eller av deras föräldrar.

Sedan dess har situationen förändrats radikalt och idag är en majoritet av de flerspråkiga eleverna i svenska skolor födda i Sverige med svenska som ett av sina språk sedan tidig barndom. Det innebär ofta att de har ett fullt utvecklat svenskt informellt språk vid sidan av ett eller flera andra språk, vilket emellertid inte är någon garanti för att de inte kan få svårigheter i skolan och senare även i andra utbildningssammanhang som förutsätter behärskning av ett mer formellt standardspråk. Det som är viktigt att understryka är dock att dessa elevers behov av språkutbildning skiljer sig väsentligt från nyanländas, något som inte i tillräckligt hög grad beaktats. Att tillfredsställa kommunikativt kompetenta elevers högst varierande behov av språkutbildningsinsatser med fokus på den typ av skolrelaterade språkkunskaper som förutsätts för lärandet i skolans ämnen på olika stadier är en betydligt mer grannlaga uppgift än att bedriva grundläggande språkundervisning för relativt nyanlända elever. Mot bakgrund av den stora brist på lärare med formell kompetens i svenska som andraspråk som upprepade gånger dokumenterats under många år är det rimligt att anta att stora grupper av lärare haft svårt att gå iland med denna uppgift med förödande konsekvenser för såväl elever som för ämnet.

Talmys mainstream/ESL-hierarki utgör en högst relevant förklaringsgrund till varför många elever kan uppfatta det som en kränkning och degradering (Elmeroth 2008; Gruber 2007; Myndigheten för skolutveckling 2004) att tvingas delta i undervisning i svenska som andraspråk som förknippas med låg status och kvalitet, nyanlända och icke-svenskkunniga elever och låga förväntningar. Det faktum att många vuxna i och utanför skolan – inte minst i media – ideligen ger uttryck för sin förvåning över att barn och ungdomar som är födda i Sverige kan behöva särskilt stöd för sin språkutveckling, förstärker bilden av enspråkighet och homogen svenskhet som det självklara, eftersträvansvärda och ”normala”. Paradoxalt nog kan den parallellism som utmärker kursplanerna i svenska och svenska som andraspråk som har sin grund i en strävan att jämställa de bägge skolämnena

och ge dem lika värde, i själva verket också ha bidragit till att förstärka en mainstream-/andraspråkshierarki. Även om ämnena vänder sig till elever med helt olika behov och delvis har olika innehåll kan de nästan identiskt framskrivna kursplanerna ge en bild av två ämnen med samma innehåll med den enda skillnaden att det ena vänder sig till elever som faller utanför ”mainstream”. I en skola som fortfarande så starkt präglas av en idealisering av den enspråkiga normen framstår följaktligen detta ämne som det mindre attraktiva av de två svenskämnena.

Man skulle också – med hänvisning till den sociala, demografiska och politiska förvandling som Sverige genomgått under senare år – kunna tala om en eftersläpning som kännetecknar såväl attityder och värderingar i samhället som utbildningspolitiska satsningar i förhållande till flerspråkighet (jfr Stroud 2003). Som många forskare påpekar låter sig språken i 2000-talets flerspråkiga samhällen inte alltid uppdelas i uniforma, enhetliga och autonoma första- eller andraspråk (Fraurud & Boyd 2006; Jørgensen 2008; Sridhar 1996). Många barn och ungdomar i Sverige växer upp med flera språk som de i vardagen använder och förhåller sig till på ett mycket varierat och dynamiskt sätt. Dessa språk låter sig inte alltid fångas i entydiga traditionella klassifikationer som förstaspråk och andraspråk (Hyltenstam & Lindberg 2004:15–16) och för många flerspråkiga elever som vuxit upp i Sverige är gränsen mellan första och andraspråk inte självklar. Skolans behov av att identifiera och fastställa elevers första- och andraspråk i en ambition att främja deras språkutveckling på bästa sätt kan alltså komma i konflikt med elevernas uppfattning om sin egen språkliga identitet och tillhörighet.

Samma eller likvärdig utbildning?

De problem som identifierats i samband med införandet av ämnet svenska som andraspråk i svenska skolor visar att erkännande av den språkliga och kulturella mångfalden inte kan uppnås enbart genom kursplaner och andra styrdokument. Hur man, utan att markera de flerspråkiga eleverna som avvikande och ytterligare bidra till deras exkludering, ska kunna erbjuda dessa elever en likvärdig och språkutvecklande undervisning på deras egna villkor är på många sätt en ödesfråga inte bara för skolan utan också för den demokratiska samhällsutvecklingen. Att erbjuda alla elever samma svenskundervisning vore enligt vissa röster i debatten kring ämnet (jfr Myndigheten för skolutveckling 2004; Fridlund 2011) den självklara lösningen. I själva verket är sådana förslag inte bara naiva och historielösa utan också djupt ojämlika (Lewis 2001), inte minst med tanke på de brister i bemötandet av flerspråkiga elever som avslöjats i olika studier. I stället för att neutralisera mångfalden och förringa betydelsen av språkliga skillnader måste skolan finna nya, flexibla och berikande sätt att representera och ta tillvara den

språkliga mångfalden genom vilka elevernas olika språk tillåts samverka, interagera och utvecklas (jfr Lindberg 2007, 2010, 2011).

Maria Westling Allodi (2002) påpekar, i en analys av hur samhället genom sina utbildningssystem behandlar skillnader för att nå framgång och minimera diskriminering, att utbildningssystemens förmåga att anpassa utbildningen till varierande villkor och förutsättningar utgör en kärnfråga i strävan för allas rätt till utbildning. Hon hänvisar här till två olika sätt att tolka likvärdighet som ofta förväxlas i utbildningspolitiska sammanhang. Det kan få negativa konsekvenser t.ex. då man ser avsaknad av anpassning som bevis på likvärdighet. Westling Allodi (2002) skiljer här mellan å ena sidan likvärdighet som *samma undervisning*, vilket kan ses som en strävan uppifrån att med utgångspunkt i sociala behov och rationella motiv påverka, forma och organisera ett homogent samhälle, och å den andra likvärdighet som *samma möjligheter*, vilket snarare kan ses som ett underifrånperspektiv som ger individer och grupper rätt att behandlas olika i syfte att uppnå likvärdighet. Enligt Westling Allodi uppnås inte inkludering för likvärdighet automatiskt genom att alla elever deltar i samma undervisning oberoende av deras behov och förutsättningar, eftersom detta förutsätter pedagogiska praktiker som utgår ifrån att alla människor är unika och att man uppskattar mångfalden. Lärarnas attityder till eleverna, deras förmåga att arbeta med sociala relationer och anpassa undervisningen till elevernas olikheter spelar en nyckelroll i detta sammanhang.

Mainstreaning vs. differentiering

Som McKey och Warshauer Freedman (1990) påpekat, återspeglar olika utbildningsinsatser gentemot minoritetsspråkselever också olika antaganden om språkutveckling och likvärdighet i utbildning. I ett internationellt perspektiv kan i huvudsak två kontrasterande modeller urskiljas, nämligen mainstreaming och differentiering genom separata program. I Storbritannien övergavs redan i slutet av 1990-talet särskild undervisning i engelska som andraspråk i en strävan att uppnå en likvärdig icke-diskriminerande utbildning. Det innebar att undervisningen i engelska som andraspråk blev alla lärares ansvar och inte längre bedrevs av lärare med specialkompetens i engelska som andraspråk. Minoritetsspråkseleverna antogs härmed lära sig engelska genom att delta i ämnesundervisningen utan några särskilda språkundervisningsinsatser. Som en konsekvens av det nya systemet finns inte längre någon särskild lärarutbildning eller krav på särskilda kvalifikationer för att undervisa elever med andra modersmål än engelska. Likaså har statligt finansierade insatser inom högre utbildning för kompetensutveckling i engelska som andraspråk lyst med sin frånvaro sedan början på 1990-talet (Leung 2005), vilket lett till att andelen lärare med specialkompetens i ämnet har sjunkit till tre procent i vissa områden.

Även om en icke-diskriminerande agenda utan tvivel är av avgörande betydelse för att uppnå social integration och likvärdig tillgång till utbildning i mångkulturella och flerspråkiga samhällen, räcker det inte för att undanröja minoritetselevernas språkliga hinder för skolframgång, vilket bekräftas i internationella studier och rapporter. Mainstreammodellens underliggande antagande om att utvecklingen av ett skolrelaterat andraspråk skulle ske helt implicit och automatiskt bara genom att eleverna kommunicerar och deltar i klassrumsinteraktionen utan särskilt språklig vägledning saknar stöd i forskningen. Storskaliga studier och kartläggningar (Thomas & Collier 2002; Mohan et al. 2004; Stanat & Christensen 2006) har visat att det inte finns några snabba, enkla sätt att eliminera språkliga skillnader och tillfredsställa minoritetselevers språkliga behov. Frånvaron av systematiskt språkligt stöd utgör alltså utan tvivel ett hinder för dessa elevers skolframgång.

I de jämförande studier där utbildningsresultat och skolsituationen för elever med utländsk bakgrund analyserats i ett antal OECD-länder, däribland Sverige (Christensen & Stanat 2007), har man funnit ett antal faktorer som avgörande för framgångsrik utbildning för denna elevgrupp. Här betonas bl.a. vikten av långsiktighet och kontinuitet liksom systematiskt och strukturerat språkligt stöd i enlighet med kursplaner baserade på centralt utvecklade styrdokument, dvs. riktad och specialiserad andraspråksundervisning. Den kan genomföras som en del av, eller delvis åtskild från övrig undervisning viss tid per dag eller vecka utifrån de enskilda elevernas behov och förutsättningar, men bör erbjudas med en schemaläggning som möjliggör full delaktighet i övrig undervisning. Exempel på denna typ av andraspråksprogram finns t.ex. i Kanada och Australien, dvs. länder som enligt internationella jämförelser i t.ex. PISA-studierna är bland dem som uppvisar bäst resultat för elever med andra modersmål än majoritetsspråket. Här spelar också, till skillnad från Storbritanniens mainstreamprogram, ESL-lärarna en central roll.

Här är det självklart den professionella andraspråksläraren som bär det yttersta ansvaret för att utveckla de flerspråkiga elevernas förutsättningar att möta de språkliga kraven i olika ämnen genom en professionell, behovsstyrd och ämnesintegrerad språkundervisning. I detta arbete spelar också modersmålsundervisningen i den mån den erbjuds en viktig roll både som verktyg för kunskapsutveckling och som länk och brygga mellan skolan och elevernas övriga erfarenhetsvärldar.

Flerspråkiga elevers skolframgång – en angelägenhet för alla lärare

Samtidigt betonar även förespråkare för differentiering och separata program vikten av att alla lärare engageras i arbetet med att utveckla en långsiktig och systematisk språk- och kulturmedveten undervisning i alla ämnen. Det för-

utsätter naturligtvis omfattande kompetensutvecklingsinsatser för de verksamma lärarna och en betydande satsning på dessa frågor i lärarutbildningarna som i Sverige, trots de senaste tjugo, trettio årens minst sagt dramatiska demografiska utveckling, fortfarande utexaminerar lärare med mycket begränsad beredskap inför skolans språkliga och kulturella mångfald, som om ingenting hade hänt. Synen på ämneslärares professionalitet måste alltså vidgas till att omfatta även språkliga dimensioner på lärande och på de ämnen de undervisar i för att rimma med de krav som ställs på lärare i den mångspråkiga skolan.

Ett resurstänkande i förhållande till den språkliga och kulturella mångfalden i den svenska skolan måste alltså med nödvändighet också omfattas av hela skolans personal för att få effekt. Det är uppenbart att den komplexa mångfald i förhållande till både språk, etnicitet, kön och klass som elever i dagens skola uppvisar, förutsätter en helt annan beredskap än tidigare hos alla lärare. Det gäller alltså inte bara språklärare. Med tanke på att det inte är i språklärarnas utan i andra lärares klassrum som eleverna tillbringar den största delen av sin skoldag och att det är där skolframgången avgörs, kan frågor kring flerspråkiga elevers språk- och kunskapsutveckling inte betraktas som ett särintresse eller en angelägenhet endast för lärare i svenska som andraspråk och modersmål. Språk- och kunskapsutveckling utgör delar av en och samma process, vilket betyder att alla lärare spelar en avgörande roll för den språkutveckling som krävs för lärandet i skolans olika ämnen. I den tidigare refererade OECD-studien om invandrade elevers skolsituation i Sverige (Taguma et al. 2010:8) slår man också fast att utbildning av alla lärare och skolledare för språklig och kulturell mångfald är av högsta prioritet för den svenska skolan.

I detta avseende återstår det mycket att göra i den svenska skolan där påfallande få utbildningsinsatser i form av kompetensutveckling kring flerspråkiga elevers språk- och kunskapsutveckling och allmänna skolsituation genomförts och där lärarutbildningen i många avseenden fortfarande präglas av en monokulturell och enspråkig syn på skolan.

Varierande behov

De elever som enligt Skolverkets definition karakteriseras som *elever med utländsk bakgrund* är en på alla sätt heterogen grupp som för närvarande utgör ca 20 procent av alla elever i den svenska skolan. Här återfinns elever med högst olika förutsättningar och behov som sinsemellan uppvisar fler skillnader än likheter; de har en varierande språklig, kulturell och social bakgrund, är i skiftande åldrar och har tillbringat olika lång tid i Sverige – många är födda i landet medan andra nyligen anlänt. De lever dessutom i integrerade såväl som segregerade bostadsområden och har precis som alla andra elever skiftande personligheter, intressen, drömmar och talanger.

Många har också svåra upplevelser i samband med krig och uppbrott bakom sig. Trots denna stora variation har dessa elever dock en viktig gemensam nämnare som gör att deras skolsituation skiljer sig från andra elevers, nämligen att de i hemmet och i sin närmiljö vuxit upp med andra språk än svenska. Men även i detta sammanhang är skillnaderna mellan olika elever stora. Många elever kommer från miljöer där flera språk, och kanske även svenska, använts sida vid sida ända sedan de var mycket små. Andra kommer från språkligt mer homogena miljöer, vilket kan innebära att de endast har haft en ganska sporadisk kontakt med svenska före skolstarten. Vissa elever talar ett språk med ena föräldern, ett annat med den andra och kanske svenska med syskonen; andra talar ett och samma språk hemma och svenska med vissa eller alla kompisar och i skolan. Flerspråkigheten tar sig alltså många uttryck, vilket bl. a. innebär att flerspråkiga elever behärskar sina språk i varierande utsträckning, förhåller sig till dem på skiftande sätt och använder dem i olika sammanhang (Håkansson 2003). Det betyder också att elevernas förutsättningar att kommunicera och lära på svenska, precis som deras behov av särskilda språkliga insatser i skolan, är högst varierande. Detta ställer mycket höga krav på skolornas förmåga att kartlägga och diagnostisera elevernas språkfärdigheter ur en rad olika aspekter liksom på deras beredskap att erbjuda effektiva och språkutvecklande insatser i enlighet med de enskilda elevernas högst varierande behov. Kartläggningar av flerspråkiga elevers språkfärdigheter bör naturligtvis även omfatta modersmålet. Det är också viktigt att påpeka att omfattningen och inriktningen på de språkliga insatserna också måste anpassas efter de språkliga krav som elever på olika stadier möter i den övriga undervisningen.

I detta avseende ger de nuvarande styrdokumenten mycket begränsad vägledning. Den parallellism mellan svenskämnena som tidigare refererats till kan till och med utgöra ett hinder för skolornas beredskap inför detta viktiga arbete. Här krävs en helt annan typ av kursplaner som definierar och avgränsar nivåer i andraspråket i förhållande till typiska målgrupper av elever. Dessa nivåer måste vara fastställda utifrån kriterier och progressioner, bland annat med tydlig koppling och relevans till skolrelaterade språkfärdigheter på olika stadier. Exempel på denna typ av nivåbeskrivningar från den kanadensiska kontexten återfinns i Alberta Government (2013).

Utgångspunkter för språkutvecklande insatser

Det är tämligen uppenbart mot bakgrund av de förhållanden vi behandlat ovan att djupgående förändringar behövs om den svenska skolan ska förmå tillvarata flerspråkiga elevers potential och ge dem en likvärdig och rättvis undervisning. I det följande presenteras några tankar om i vilken riktning sådana förändringar skulle kunna genomföras. Dessa tankar utarbetades ursprungligen under vintern 2011/12 inför ett möte med politiker och tjänste-

män vid Utbildningsdepartementet om flerspråkiga elevers skolsituation.[18] De har därefter vidareutvecklats under ca ett års tid genom organiserade kontakter med grupper av lärarutbildare, forskare, utbildningsadministratörer och politiker. Grundtanken som förslaget bygger på är att behoven av språkutbildning för nyanlända elever skiljer sig starkt från de behov som finns hos elever som är födda i Sverige eller som anlänt hit mycket tidigt i livet. Den senare gruppens svårigheter i svensk skola och specifika behov av språkutbildning har uppmärksammats allt mer under det senaste decenniet i takt med att heterogeniteten inom gruppen elever med annat modersmål än svenska blivit alltmer uppenbar. Medan det torde te sig helt naturligt för elever som nyligen kommit till landet att de behöver undervisning i svenska som andraspråk, är det som vi visat ovan förenat med många komplikationer, bland annat i relation till vad som kan kallas legitimitet eller trovärdighet, att erbjuda elever som är födda i landet undervisning i ett sådant ämne. Dessa elever har i allmänhet redan utvecklat en svenska som fungerar utan problem i de flesta interaktiva sammanhang, men har i många fall ändå behov av en fortsatt riktad språksatsning.

Utbildningsarrangemang för nyanlända elever

För elever som anlänt till Sverige nära skolstarten eller under skoltiden ser vi följande arrangemang som ändamålsenliga:

1. Under den allra första tiden bör *förberedelseklass* eller motsvarande med successiv inslussning i ordinarie undervisning utgöra normen. Vi föreställer oss att det måste finnas en bortre tidsgräns för deltagande och föreslår att en elev kan tillhöra en förberedelseklass under högst ett år. Under tiden i förberedelseklass ges eleven intensiv undervisning i *ämnet svenska som andraspråk*, som bör vara organiserat i väl avgränsade och tydligt beskrivna nivåer, och eleven förväntas då utifrån sina individuella förutsättningar klara en eller flera av dessa nivåer. För att undvika att en kunskapslucka skapas gentemot enspråkiga elever är det viktigt att *ämnesundervisning* ges med alla medel som står till buds, varav studiehandledning och undervisning *på modersmålet* under denna första tid bör vara den starkaste komponenten. Men särskilt anpassad ämnesundervisning på svenska bör också ingå och successivt öka. Ett erbjudande om kontinuerlig modersmålsundervisning under tiden i förberedelseklass är också viktigt utifrån perspektivet att modersmålet behöver utvecklas för att även fortsatt utgöra ett effektivt instrument för kunskapsinhämtande, åtminstone fram till dess att behärskningen av svenska räcker till för att kunskap framgångsrikt ska kunna tillägnas via det språket.

[18] Mötet var initierat av Inga-Lena Rydén, Nationellt centrum för svenska som andraspråk.

2. Efter tiden i förberedelseklass, dvs. när eleverna helt gått över till ordinarie övrig undervisning, får de fortsatt undervisning i *ämnet svenska som andraspråk*. Som antyddes i punkten ovan ska ämnet svenska som andraspråk då vara organiserat i ett antal väl avgränsade och åldersrelaterade nivåer med den slutliga målsättningen att möjliggöra lärande och social interaktion på svenska utan avgörande språkliga hinder. De bör alltså i detta skede inte bara ha uppnått förmåga att klara av vardagliga sociala situationer; de ska helt enkelt behärska svenska enligt de kriterier som fastställts för den översta nivån. Det är klart att olika individer når en sådan nivå i olika takt, men det är helt orealistiskt att föreställa sig att ens någon kan uppnå den under året i förberedelseklass, även om undervisningen i svenska som andraspråk där ska vara intensiv. En organisering av ämnet i väl avgränsade nivåer kräver att adekvata instrument utvecklas för professionell bedömning av relevanta språkfärdigheter. Ämnet svenska som andraspråk bör i normalfallet vara dessa elevers svenskämne tills den översta nivån uppnåtts, men man kan tänka sig att de i individuella fall kan följa både detta ämne och *ämnet svenska*. En stark modersmålskomponent med språkutveckling och studiehandledning på modersmålet bör också ingå.

3. När eleverna uppnått den högsta och avslutande nivån i ämnet svenska som andraspråk, ska de delta i *ämnet svenska*. Här är det viktigt att påpeka att detta ämne i förhållande till hur det ser ut idag måste revideras och anpassas till att en så stor andel elever i svenska klasser har flerspråkig bakgrund. Eftersom det dock är så att många elever fortfarande på denna nivå kan behöva ytterligare riktat språkligt stöd för att klara skolarbetet väl, ska man här erbjuda deltagande i en verksamhet som skulle kunna kallas *svenska för studieframgång*, *språkstudio*, *språkhandledning, språkgym* – namnfrågan återstår att lösa. Vi har själva laborerat med etiketten *språkgym* huvudsakligen för att pedagogisera några av de karakteristiska drag som vi menar en sådan språkstödjande verksamhet måste uppfylla. Hur som helst är det viktigt att beteckningen kan påverka potentiella elever positivt och vara attraherande. Även här bör en stark modersmålskomponent ingå, eventuellt direkt kopplat till verksamheten.

Utbildningsarrangemang för elever som är födda i Sverige eller har anlänt tidigt i livet

Denna grupp elever bör få sin svenskundervisning i (det reformerade) ämnet svenska. De ska alltså inte ha undervisning i svenska som andraspråk, annat än möjligtvis i individuella undantagsfall, där man trots att man bott i Sverige under hela förskoletiden inte alls varit i kommunikativ kontakt med svenska språket. Det kan i sådana fall t.ex. vara frågan om att man behöver delta i ämnet svenska som andraspråk på någon av de högre nivåerna. Detta

måste bedömas från fall till fall med hjälp av framtagna diagnostiska instrument. Utöver den ordinarie svenskundervisningen bör denna grupp erbjudas det ovan nämnda språkprogrammet *svenska för studieframgång språkstudio* etc. Det är av största vikt att ett sådant erbjudande kommer till stånd redan från skolstart vid en förändring av den rådande situationen, eftersom dessa elever vid en reformerad utbildning i svenska som andraspråk, som enbart vänder sig till elever med relativt kort tid i Sverige, inte längre kommer att vara aktuella för undervisning i svenska som andraspråk. Även denna elevgrupp ska erbjudas en stark modersmålskomponent.

Svenska för studieframgång, språkstudio, språkgym etc.
När det gäller denna verksamhet föreställer vi oss ett kvalificerat, varierat, språkutvecklande program lett av högt kvalificerade och specialutbildade *lärare i ämnena svenska som andraspråk* och *svenska* samt välutbildade *modersmålslärare.* Här ska man även ha tillgång till kvalificerade ämneslärare i en referensgrupp. Verksamheten ska vara ett erbjudande som eleverna frivilligt väljer, vilket torde vara en förutsättning för att skapa legitimitet och motivation. Den behöver inte, och ska kanske inte, enbart vända sig till flerspråkiga elever. För att undvika att den stämplas som segregerande är det en fördel om alla elever får del av erbjudandet. Det är viktigt att verksamheten är nära kopplad till skolarbetet i övrigt, och det ska också kunna demonstreras att den har effekter på elevernas skolframgång. Vad vi vill peka på med att använda termen *språkgym* är för det första att aktiviteterna ska vara individanpassade, så att varje elevs specifika behov beaktas. De som ansvarar för verksamheten ska vara kvalificerade att med hjälp av centralt utvecklade bedömningsinstrument kunna avgöra vilka språkliga dimensioner som behöver utvecklas hos enskilda elever, eller annorlunda uttryckt, de ska kunna bedöma varje elevs starka och svaga sidor i språket. Vidare ska verksamheten kunna erbjuda eller sätta in ett helt spektrum av olika program som är specifikt avpassade för den enskildes behov. Man kan likna dessa vid stationerna i ett gym. Dessa program bör ofta vara datorbaserade och ska i någon utsträckning kunna genomföras på distans. Bland de typer av aktiviteter som programmen kan omfatta är följande: Utveckling av repertoarer av skolrelevanta muntliga och skriftliga genrer; utveckling av vissa specifika skriftspråkdrag, t.ex. grammatiska metaforer eller andra skriftspråkliga uttryckssätt/ordförråd, både ämnesspecifikt och ämnesövergripande; systematisk utveckling av ordförrådets bredd och djup; utveckling av metaforik/bildspråk, idiomatik, kollokationer etc. i mer formella register; utveckling av läsfärdighet och läsförståelse med fokus på ämnestexter; utveckling av hörförståelse för olika innehåll i skilda situationer, t.ex. träna specifikt på förståelse av svenska i bullriga miljöer (träna på simultankapacitet); utveckling av studieteknik, lärstrategier, anteckningsteknik (simultant lyssnande och bearbetning av information); träning av tal inför publik, retorik och argumentation; litteracitetsaktiviteter på modersmålet.

Kvalitetskrav

För att systemet med ett nytt ämne *svenska som andraspråk* och en *ny kompletterande språkhandledning* ska fungera måste det uppfylla höga krav på legitimitet och professionalitet. Systemets legitimitet bygger på att det innehåller evidensbaserade bedömningsinstrument som kan hantera många dimensioner av språkfärdighet. Att dessa instrument är evidensbaserade innebär att bedömningarna blir korrekta och har förutsägningsvärde i förhållande till det språk som krävs för lärande i skolans ämnen. Själva undervisningen måste successivt vara alltmer kopplad till formellt språkbruk i skolans ämnesundervisning. Detta gäller för både högre nivåer i svenska som andraspråk och den kompletterande språkhandledningen.

Vidare måste skolor ha tillgång till informationsunderlag för dialoger med föräldrar, elever och övrig skolpersonal. Det är de professionella och specialutbildade lärarna som ska genomföra dessa samtal, men de behöver stöd för att hantera den argumentation som de kontinuerligt måste föra. Systemet måste också uppfylla högt ställda krav på professionalitet, vilket dels innebär att kunskapen om flerspråkighet och lärande behöver öka hos skolledare och alla lärare i skolan, dels att det uteslutande måste vara lärare med specialkompetens i svenska som andraspråk som undervisar i ämnet och som ingår i och leder den kompletterande språkverksamheten. Detta kräver utveckling av lärarutbildningar på alla nivåer och speciellt av lärarutbildningen i svenska som andraspråk. Den måste bättre än nu förbereda lärare i svenska som andraspråk för att kunna undervisa elever på alla stadier i samtliga tre spår i utbildningen (förberedelseverksamhet, svenska som andraspråk upp till avancerad nivå, språkhandledning). Dessutom måste all lärarutbildning förändras så att den blir bättre anpassad till den språkliga och kulturella mångfalden i dagens skola.

Krav på kvalitet innebär också flexibilitet. Det måste finnas utrymme för alternativa organisatoriska lösningar som speglar den variation och heterogenitet som präglar behoven hos eleverna. Lösningarna måste också beakta skolornas olika förutsättningar och elevunderlag. Skolverket har här en viktig uppgift i att stödja skolorna med modeller för alternativa lösningar till organisation, schemaläggning och timplanering.

När det gäller betygsfrågan ser vi dock inga hinder till att betyg i svenska som andraspråk på den aktuella nivån ersätter betyg i svenska så länge man deltar i undervisning i svenska som andraspråk. Rimligtvis bör godkänt betyg på den aktuella nivån i svenska som andraspråk också ge gymnasiebehörighet varefter studierna i svenska som andraspråk kan fullföljas i gymnasiet. För sent anlända elever och för elever nyanlända till gymnasiet bör naturligtvis undervisningen i svenska som andraspråk liksom för övriga stadier anpassas efter de språkliga krav som ställs för studier i övriga ämnen på dessa nivåer. Dessutom måste timplanen utökas och eventuellt andra speciella åtgärder vidtas för att dessa elever ska kunna nå minst godkänt

gymnasiebetyg i svenska och fullständiga slutbetyg i övrigt inom ramen för sin gymnasieutbildning.

Attitydförändringar

I ett vidare perspektiv kan det system vi föreslår inte fungera utan att vissa attityder som råder i skolan och i samhället förändras. Det krävs helt enkelt ett aktivt arbete mot bristtänkande och den utbredda stigmatiseringen av flerspråkiga elever som lågpresterande. PISA-studierna visar att elever med utländsk bakgrund över lag uppvisar högre motivation, mer positiva attityder gentemot skolan och i högre grad har planer på högskoleutbildning än elever med majoritetsbakgrund (OECD 2007). Många forskare betonar också vikten av att möta dessa elever med höga förväntningar (Cummins 2001). Skolan och samhället behöver bli bättre på att tillvarata de resurser som ligger i ett utbrett språkkunnande och rika erfarenheter av andra kulturer och samhällen, vilket i sin tur förutsätter ett aktivt arbete för ett resurstänkande omkring de flerspråkiga elevernas varierande språkliga och kulturella erfarenheter. Därutöver krävs större reflektion över den idealisering av enspråkighet som norm och homogen svenskhet som fortfarande präglar samhället och skolan.

Slutord

Som tidigare framhållits ska de förslag till förändringar av skolans språksatsningar för flerspråkiga elever som här föreslås ses som möjliga utgångspunkter för en vidare diskussion av en reformerad språkutbildning snarare än som en färdig, fullständig och genomarbetat modell. I detta skede återstår många viktiga aspekter att dryfta och närmare utreda inte minst när det gäller anpassning till förhållanden på enskilda skolor, schemaläggning och timplaner – frågor som vi varken har möjligheter eller de rätta förutsättningar att gå närmare in på i detta sammanhang.

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Litteratur

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Developmentally Moderated Transfer and the role of the L2 in L3 acquisition[19]

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Introduction

This chapter focuses on one specific aspect of the Developmentally Moderated Transfer Hypothesis (Pienemann et al. 2005), namely the role of the L2 in L3 acquisition. The research presented here was prompted by the L2 transfer hypothesis put forward by Bohnacker (2006) and Bardel & Falk (2007). According to this hypothesis learners transfer features from the L2 to the L3, but not from the L1 to the L3. This proposal is partly in conflict with the Developmentally Moderated Transfer Hypothesis which predicts that learners transfer features from the L1 or the L2 to the new language when they are developmentally ready to acquire the features to be transferred, but not before.

The articles by Bohnacker (2006) and Bardel & Falk (2007) are attempted rebuttals of Håkansson, Pienemann & Sayehli's (2002) work on L1 transfer and aspects of the underlying theory: Processability Theory (Pienemann 1998). Håkansson et al. (2002) presented empirical evidence showing that Swedish learners of L2 German do not transfer V2 at the initial state although both are V2 languages. Bohnacker (2006) and Bardel & Falk (2007) claim that the non-transfer of V2 is due to the influence of the L2. They further claim to have shown in their own study that the initial L3 word order is determined by the L2, irrespective of the structure of the L1 and independently from constraints on processability.

In their response to Bohnacker (2006) Pienemann & Håkansson (2007) demonstrated that Bohnacker's informants had reached an advanced level of

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acquisition and that this set of data is not suitable to test hypotheses about transfer at the initial state.

In this chapter we review the study by Bardel & Falk (2007) and present the gist of an extensive replication of this study. We show that Bardel & Falk's study is based on a very limited database and on theoretical concepts that lack validity, in particular the notion "strongest L2" which is crucial to Bardel & Falk's approach. Our replication study shows that the initial L3 word order and the initial position of negation is neither determined by the L1 nor by the L2 and that it can be predicted on the basis of processability.

Developmental Moderation of Transfer and L2 transfer in L3 acquisition

The Developmentally Moderated Transfer Hypothesis

The Developmentally Moderated Transfer Hypothesis (DMTH) is a component of Processability Theory (Pienemann 1998); it was spelt out in detail with empirical support in Pienemann et al. (2005). The basic idea behind the DMTH is the following: given the architecture of human language processing, the L2 formulator relies on L2-specific lexical information that is essential for grammatical processing. The learner has no *a priori* knowledge of L2-specific lexical information such as the diacritic features of the L2 lexical categories. Therefore full transfer of the L1 at the initial state would lead to very unwieldy hypotheses. Instead, it is assumed that the L2 lexicon is annotated gradually and that this, together with the development of L2 processing procedures, permits the learner to build up the L2 in stages. As illustrated in Figure 1, features of the L1 will be able to be utilized once the developing L2 system can process them. For this reason all learners are predicted to follow the same developmental trajectory irrespective of the L1, and positive and negative effects of the L1 will be visible at predictable points of development. In other words, the DMTH does not rule out transfer altogether. Instead, it assumes a selective role of transfer in SLA.

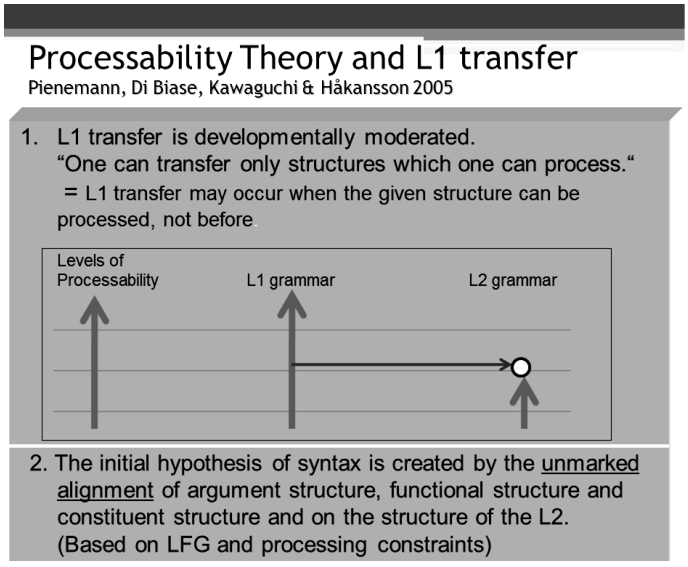

Figure 1. Developmentally Moderated Transfer.

Håkansson, Pienemann and Sayehli (2002)

The study by Håkansson, Pienemann & Sayehli (2002) provides empirical support for the DMTH. The study focuses on the acquisition of German by Swedish school children. The L1 and the L2 are typologically close and share the following word order regularities in affirmative main clauses: SVO, adverb fronting (ADV) and V2 (verb-second) after ADV.

The following examples of V2 in German and Swedish illustrate the word order similarity in the two languages:

(1) German = V2 Dann kauft das Kind die Banane

(2) Swedish = V2 Sen köper barnet bananen
(Then buys the child the banana)

Note that in German and Swedish sentences without V2 are ungrammatical:

(3) * Dann das Kind kauft die Banane
(Then the child buys the banana)

Table 1 gives an overview of the acquisition of key word order patterns in the three Germanic languages that are relevant in the context of this chapter. These developmental patterns are displayed in relation to the corresponding PT levels.

Table 1. L2 syntactic development in three Germanic languages (selected structures).

PT level	ESL syntax	Swed. L2 syntax	GSL syntax (Meisel et al. 1981)
6	Cancel INV	---	V-Final
5	Do2nd, Aux2nd	V2	V2
4	Y/N inv, copula inv	---	V-Front
3	ADV-1st, WH-1st, Do-1st	ADV-1st, WH-1st	ADV-1st, WH-1st
2	SVO	SVO	SVO
1	invariant forms	invariant forms	invariant forms

The results of this study are summarized in Table 2 below which treats all learner samples as parts of a cross-sectional study. Therefore Table 2 represents an implicational analysis of the data which demonstrates that the learners follow the sequence (1) SVO, (2) ADV and (3) INV. In other words, ADV and INV are not transferred from the L1 at the initial state although these rules are contained in the L1 and the L2. This implies that for a period of time the learners produce the following constituent order which is ungrammatical in the L1 as well as in the L2: * adverb+S+V+O.

This finding is consistent with the DMTH because the structures which are identical in the two languages are not transferred at the initial state. Under the transfer assumption one would have expected to find all obligatory structures to be present in all samples, particularly V2. However, 10 of the 20 samples consistently violate the V2 rule (i.e. * adverb+ S + V + O) despite the marked ungrammaticality of the resulting structure.

Bohnacker (2006) and response

Bohnacker claims that the late acquisition of V2 in Håkansson et al.'s study is due to transfer from English, the L2 of all learners in the sample. She further claims that Swedes learning German as the first L2 start with V2 because they transfer this structure from the L1. In other words, Bohnacker assumes full transfer from the L1 to the L2 and from the L2 to the L3 if there is an L3. To support her claims she carried out a replication of Håkansson et al.'s study. Bohnacker's study is based on a group of six elderly Swedes half of whom report never to have learned English or German. The informants learnt German mostly in order to be able to communicate with their German-speaking grandchildren. The other three learners had English as their L2 and learnt German as L3. Bohnacker found quantitative differences between the

two groups of learners. The group without L2 English showed a higher accuracy in the use of V2 in German. However, Pienemann & Håkansson (2007) demonstrated that all learners in Bohnacker's study had already acquired V2, and the data were not suitable to make any statements about transfer at the initial state. It may be useful to summarise Pienemann & Håkansson's (2007) review to reconstruct the debate.

Table 2. German as L2 by Swedish learners. Implicational scale based on all learners in the study by Håkansson et al. (2002).

Name	*SVO*	*ADV*	*INV*
Gelika (year 1)	+	-	-
Emily (year 1)	+	-	-
Robin (year 1)	+	-	-
Kennet (year 1)	+	-	-
Mats (year 1)	+	-	-
Camilla (year 2)	+	-	-
Johann (year 1)	+	+	-
Cecilia (year 1)	+	+	-
Eduard (year 1)	+	+	-
Anna (year 1)	+	+	-
Sandra (year 1)	+	+	-
Erika (year 1)	+	+	-
Mateaus (year 2)	+	+	-
Karolin (year 2)	+	+	-
Ceci (year 2)	+	+	-
Peter (year 2)	+	+	-
Johan (year 2)	+	+	+
Sandra (year 2)	+	+	+
Zofie (year 2)	+	+	+
Caro (year 2)	+	+	+

Pienemann & Håkansson (2007) subjected Bohnacker's data to a re-analysis based on the statistics provided in her paper. The re-analysis was necessary because Bohnacker contrasts her claim with Håkansson's claim that Swedes learning German as L2 start with canonical word order. Therefore Bohnacker's analysis needs to be based on the same approach to data analysis and the same acquisition criteria (i.e. implicational scaling and the emergence criterion). As mentioned above, Bohnacker's own analysis focuses on quan-

titative differences between learners. Pienemann & Håkansson (2007) re-analysed Bohnacker's data in form of an implicational analysis using the emergence criterion (see Table 3).

Table 3 is laid out as follows. The first column states if German is the L2 or the L3 of the informant. The second column identifies the sample by informant name and data point number. The column entitled 'SVX' states if the sample contains examples of canonical word order (using the emergence criterion) where '+' means 'acquired'. The column 'ADV' does the same for structures with non-subjects in initial position. The column 'SEP' lists the relative frequency of two verbs (aux+V) appearing in a non-adjacent position (i.e. XVYV). This structure occurs in German, but not in Swedish. The last column lists the relative frequency of V2 application. In other words, the columns from SVX to V2 are arranged in the order of acquisition initially identified by Meisel, Clahsen & Pienemann (1981) and subsequently found in many SLA studies.

Table 3. Re-analysis of Bohnacker's sample using the same criteria as in Håkansson et al. (2002).

L2 or L3?	*Informant*	*SVX*	*ADV*	*SEP (%)*	*V2 (%)*
L2 German	Marta 1	+	+	12[20]	100
L2 German	Marta 2	+	+	12	100
L2 German	Marta 3	+	+	70	100
L2 German	Algot 1	+	+	30	100
L2 German	Algot 2	---	---	---	---
L2 German	Algot 3	+	+	85	95
L2 German	Signe 3	+	+	62	100
L3 German	Rune 1	+	+	8	55
L3 German	Rune 2	+	+	8	44
L3 German	Rune 3	+	+	76	58
L3 German	Gun 1	+	+	45	55
L3 German	Gun 2	---	---	---	---
L3 German	Gun 3	+	+	70	57
L3 German	Ulf 3	+	+	61	52

It is easy to see that all four target structures meet the emergence criterion for all informants, no cell of the implicational table is empty (apart from missing data for Algot 2 and Gun 2), no learners slip back; thus the scalability of Table 3 is 100%. This means that all structures under discussion, inclu-

[20] The figures for Marta 1+2 and Rune 1+2 are presented as averages of the two sessions by Bohnacker.

ding V2, had already been acquired at the first point of data collection. In other words, all informants had acquired V2 (and all other relevant structures) at the beginning of the study. This is the strongest reason why the study is not suitable to test the initial word order of Swedish first-time learners of German. Given that the learners had already acquired all the structures under investigation at the beginning of the study, including V2, they are simply too advanced to make any statement about the *initial* state of their interlanguages.

One might object to this conclusion about the level of acquisition of the six learners in Bohnacker's corpus on logical grounds, because full transfer from Swedish would always imply that all structures contained in Table 3 need to be present from the start. However, this hypothetical possibility would apply only to one subgroup of Bohnacker's sample, the learners with L1 Swedish and L2 German. For the other subgroup with L1 Swedish, L2 English and L3 German she predicted transfer from L2 to L3. Given that V2 is not part of English, these learners should not acquire V2 at the initial state. However, Table 3 shows that all learners from this group also display clear evidence of V2 in the first interview. Therefore, the full transfer assumption is not compatible with the evidence presented in Bohnacker's study.

Nevertheless, there is one striking difference between the L2 and the L3 group. Learners without exposure to English display a native level of performance for V2, whereas learners with previous exposure to English do not. This is highly compatible with the DMTH, which predicts that transfer will not appear before the structure to be transferred can be processed by the interlanguage system. However, when structures from the L1 or L2 are processable, they may be transferred to the target language, and this may lead to differential patterns of language use in groups of learners with different L1s (or L2s). We ascertained above that all informants in Bohnacker's corpus have reached the acquisition level marked by 'INV'. Therefore, V2 is readily processable by all learners in this corpus, and the group without knowledge of English can make recourse only to their knowledge of V2 that can be transferred at this point of development, whereas the group with English as the first L2 can transfer two competing rules that match the structural condition for V2, i.e. either XVSY or XSVY. Therefore the given learning condition facilitates the accuracy with which the L2 group uses V2 compared with the L3 group.

Bardel and Falk (2007)

Bardel & Falk (2007) also carried out a study designed to refute the DMTH. It may be useful to first consider their critique of the study by Håkansson et al. (2002). We will then review Bardel & Falk's study.

Håkansson et al. (2002) argue as follows about the role of L2 transfer in their study. If the lack of V2 transfer from Swedish to German in their data was due to the transfer of SVO from L2 English, then why were other features of English not transferred, such as "adverb-first" (ADV) or "particle" (e.g. *put it on*)? Bardel & Falk respond to this as follows. Adverbs in initial position are missing only in a few of the learners in Håkansson et al.'s study, and adverbs are optional anyway. So there could be any number of reasons for their absence. They conclude that "...the absence of a part of speech in oral production can hardly be taken as an argument against transfer" (2007: 466).

In our view, Bardel & Falk's line of reasoning ignores the context in which the analysis of word order constellations was conducted in Håkansson et al.'s study, where the following word order rules were studied as part of a distributional analysis of the interlanguages (ILs) of all 20 informants: SVO, ADV, V2. The corresponding table from Håkansson et al. (2002) with the full distributional analysis is repeated above as Table 2. As Håkansson et al. pointed out, it shows a very strong implicational relationship of the three rules (SVO, ADV and V2) with a scalability of 100%. In other words, it shows the following strict implicational relationship: SVO>ADV>V2. This is supported by a comparison of the development of those learners who were recorded at two points in time with a one-year interval.

In light of these circumstances it is unlikely that for learners who display the feature SVO only, the absence of ADV is pure coincidence, because as part of their IL grammar that follows canonical word order they systematically place adverbs and adverbials in final position as shown in (4):

(4) Der mann gehen nach hause.

In other words, the fact that adverbs and adverbials are not fronted in a subset of the data is not merely a reflection of the presence or absence of these structures or lexical categories in the sample. Instead, the learners in this group systematically placed adverbs and adverbials in final position, whereas the learners with ADV alternated between initial and final position depending on pragmatic conditions.

Bardel & Falk (B&F) present an empirical study with two distinct sets of data to support their L2 transfer hypothesis. Data set A is based on five learners of Swedish as L3 who were exposed to a sequence of ten 45-minute Swedish lessons. The typology of the learners' languages can be summarised as follows:

# learners	*L1*	*L2*	*L3*
3	+V2	-V2	+V2
2	-V2	+V2	+V2

This design permits the specific effect of the L2 to be tested empirically. Data set B was set up in a similar manner with respect to the typology of the learners' languages, only this time the learners (n=4) were recorded in one-off individual one-to-one lessons lasting about 45 minutes. According to B&F (p. 470), the learners were "absolute beginners" with no prior knowledge of Swedish. Table 4 summarizes the typology of their languages:

Table 4. The learners and their knowledge of V2 languages, data collection B.

Learner[21]	*Sex*	*First language*	*Second language*	*Target language*
EN4	F	Swedish +V2	English	Dutch +V2
EN5	M	Swedish +V2	English	Dutch +V2
D/G3	M	Italian	German/Dutch +V2	Swedish +V2
D/G4	M	Albanian	German +V2	Dutch +V2

Bardel & Falk (2007:472)

The study focused on the acquisition of negation. Using example sentences, B&F provide an implicit distribution of the position of the negator for the languages relevant in this study (with a focus on sentence negation in declaratives) which can be summarized as follows:

Table 5. Distribution of the position of the negator.

S V neg	Swedish	Dutch	German	
S cop neg A	Swedish	Dutch	German	English
S Aux neg V	Swedish	Dutch	German	English
S DO neg V				English
S neg V	Italian	Hungarian	Albanian	
S neg cop A	Italian	Hungarian	Albanian	
S neg aux V	Italian	Hungarian	Albanian	

B&F distinguish between two types of languages in this list: (1) those with preverbal negation (Italian, Hungarian and Albanian) and (2) those with postverbal negation (Swedish, Dutch, German, English). In addition they make the following assumption about negation in English, following Chomsky (1986):

> Verb raising in English (which is not a V2 language) distinguishes thematic from non-thematic verbs, and this has a bearing on the surface pattern of the English negative clause. While non-thematic verbs raise to IP and leave negation in a post-verbal position, thematic verbs remain, uninflected, in the VP… (Bardel & Falk 2007:469)

[21] The code EN is used for the learners who speak English as an L2, and the code D/G refers to those learners whose L2 is Dutch and/or German.

They contrast this analysis with that of other Germanic languages in which, according to their analysis, the position of the negator results from V2, which in turn does not differentiate between thematic and non-thematic verbs. They capitalise on this difference between English and the other Germanic languages in testing their L2 transfer hypothesis. On this basis they predict that according to the L2-transfer hypothesis where "L2 speakers of Dutch/ German…will place negation post-verbally as in Swedish, while the other group who have English as an L2…will distinguish between thematic and non-thematic verbs in relation to negation placement, since this is a property of English." (Bardel & Falk 2007:474.)

Unfortunately, data set A yielded a very small quantity of data. Given that the study focuses on transfer at the initial state, the first recording is of special significance. However, this recording merely contains an average of less than two sentences per learner and structure for the group with a V2-L2 and an average of just over one sentence per learner and structure for the group with a non-V2-L2. For the other recordings the data quantity was even smaller (cf. Bardel & Falk 2007:475).

This very small amount of data is insufficient for any standard analysis of lexical or syntactic variation aimed at excluding the use of formulae. At the same time both groups of learners produce examples of pre-verbal negation and post-verbal negation, although the L2 transfer hypothesis predicts a different distribution. Therefore the relevance of this set of data for the issue of L2 transfer remains to be demonstrated.

Data set B consists of an average of about seven relevant sentences per learner and structure, and the distributional analysis for the four learners shows that the Dutch/German group does not produce pre-verbal negation. In contrast, the English group produces both pre-verbal and post-verbal negation – depending on the presence or absence of non-thematic verbs. At first glance, this observation may be judged as support of the L2 transfer hypothesis. However, there are two problems with B&F's study in data set B: (1) The exact status of the learners' L2 has not been identified, and (2) the role of repetitions and chunks in very early formal L2 learning has not been considered.

Obviously, identifying the exact status of the learners' L2 is vital in the context of testing a hypothesis that assigns a special status to transfer from the learner's L2. The learners in data collection B and their knowledge of V2 languages are reported by B&F as shown in Table 4. For data collection A, B&F inform the reader that they asked the learners to self-rate the proficiency of their L2s, and thereby B&F identify the learners' "strongest L2" which is then recorded under "second language" in the language profile of the learners. For data collection B this procedure is not mentioned explicitly. One can only assume that it was the same for both sets of data and that the L2s shown in Table 4 are the strongest L2s of the learners. B&F do not mention the other L2s of the learners explicitly. However, the language policies of

their countries of origin and their study/work situation suggest very strongly that they also speak other L2s – like the informants in data set A. B&F state that learner D/G3 "was found via the European Parliament" and learner D/G4 "…via the University of Stockholm " (2007:472). One can assume with near-certainty that the Italian learner recruited through the European Parliament working in Brussels has English as one of his L2s, because English has featured among the language subjects in Italian schools for well over two decades, and English is also the *lingua franca* in and around the European Parliament.

If the two learners of the V2-L2 group (D/G3 and D/G4) also have a non-V2-L2 – as appears to be the case – the results of the distributional analysis of data set B appear far more difficult to interpret than it seemed at first. The absence of pre-verbal negation would then have to be due exclusively to the effect of the strongest L2 which would need to override possible effects of other L2s that do have pre-verbal negation. In fact, the same line of argument would apply to data set A as well because it also contains other L2s besides the "strongest L2".

In fact, this line of argument would be required as a matter of principle for B&F's L2-transfer hypothesis to be internally consistent. If one could attribute differential effects to just any L2 in a post-factual manner, the explanatory power of the L2 transfer hypothesis would be eroded. Alternatively, one would need to face a much more challenging task: to design a testable hypothesis of partial L2 transfer that also includes the effects of additional and typologically different L2s.

There are two issues that follow from the "strongest L2-assumption": (1) how does one measure and define the strongest L2 and (2) what is the theoretical motivation for it? Referring to the first issue, B&F admit that self-rating – which they relied on – "may not be an objective method of identifying exact proficiency in a language, but it would not have been feasible to test proficiency level in all background languages in a precise way" (2007: 471). We would like to add that proficiency may not even be the right concept that captures the notion of "strongest L2". This brings us straight to issue (2), the theoretical basis of the notion "strongest L2". The way the term is used by B&F is reminiscent of the notion *dominant language* in the context of research on bilingualism. In a review article on measuring bilingualism Pienemann & Keßler (2007) show that a multitude of different approaches to capturing language dominance has been discussed in the past five decades without an operational consensus. Obviously, B&F do not provide an explicit rationale for what a strong L2 is and why it should have a privileged status in non-native language acquisition. The very last sentence of their article may hint at what they have in mind: "....in L3 acquisition, the L2 acts like a filter, making the L1 inaccessible." (2007:480). This begs the question what it filters, besides the L1: The weaker L2s? All of them, and all features? And where does this happen? In production and comprehension? In

the Formulator (e.g. Levelt 1989), in the bilingual Formulator (DeBot 1992), in the lexicon? And how is this performance-based filter related to linguistic knowledge in the various languages? How can all of this be represented? Obviously, B&F's hypothesis is not embedded in any explicit theoretical approach, linguistic or psycholinguistic, and therefore it cannot be operationalised.

The second point that needs to be considered for Data set B in B&F's study is the status of formulae. This is relevant here because the data were collected in one single session without any previous contact with the target language. In very early L2 classes learners' utterances often consist of formulae and repetitions of the teacher's utterances, and the structures these appear to contain are not generated by their newly developing non-native formulator. Instead, they are unanalysed large entries in the lexicon. Therefore special care needs to be taken to distinguish between formulae/ repetitions and productive learner utterances. Pienemann (1998) showed that a mere count of the occurrence of structures in an L2 corpus does not reveal the underlying learner system and can be rather deceiving. He argued that what is required instead is a test of the null-hypothesis for every structural context. For instance, is a morpheme that marks plural in the target language used in plural contexts only in the learner language or also in non-plural contexts? If it is used in both contexts with a similar frequency, it is obviously not a productive part of the IL grammar. B&F did not test the null hypothesis.[22] Therefore, we cannot rule out that the apparent distribution of pre-verbal and post-verbal negation is based on formulae or repetitions.

The PALU[23] study

Our reservations about the B&F study prompted us to replicate key aspects of that study – with a view to overcome the shortcomings of their study. One key aspect of the design of our replication study was to differentiate between formulaic echoes of teacher utterances and creative L2 productions.

In the PALU study the L3 is Swedish, the L1 German. The informants have different L2s. In keeping with the DMTH outlined above, it is hypothesized that all learners follow a strictly implicational sequence of developmental stages and do not transfer any structures from their first or second language before they are developmentally ready. Also, we expect all structures they produce to be in line with the processability hierarchy for Swedish as an L2 outlined in Pienemann (1998:190 ff.). However, learners are expected to be able to repeat phrases and sentences and to use structures as fixed formulae.

[22] In fact, data set A would be far too small for this purpose anyway.
[23] PALU refers to the universities of PAderborn and LUdwigsburg.

Research design

The data collection for the PALU study was conducted at the University of Paderborn, Germany. The participants were seven German students of linguistics all of whom were fluent speakers of English with high C-test scores (cf. Grotjahn 1992). Three of the students had some prior knowledge of Swedish: C01 and C02 attended a one-semester Swedish course and C01, C02 and C05 took part in a comparative course of Nordic languages. The other four students had no prior knowledge of Swedish and its structure. However, as all seven informants were students of linguistics, and as the curriculum includes courses in both theoretical and comparative linguistics, they all had some meta-linguistic awareness.

The participants can be divided into two groups according to their knowledge of verb-second languages other than German (cf. Tables 6 and 7). The first group (group A) consisted of four learners with English as their (first) L2 who learned one or more Romance languages afterwards (e.g. French, Italian). The second group (group B) comprised three learners who also had English as their (first) L2 but who additionally learned a V2 language (e.g. Dutch).

Table 6. Group A informants and their knowledge of languages (no V2 languages).

Learner	*Sex*	*First language*	*Additional Languages*
C03	F	German	**English**, French, Latin, Arabic
C04	F	German	**English**, Latin, French, Spanish, Russian
C05	F	German	**English**, French, Italian, Chinese
C07	F	German	**English**, French, Spanish, Portuguese, Italian

Table 7. Group B informants and their knowledge of languages (+ V2 languages).

Learner	*Sex*	*First language*	*Additional Languages*
C01	F	German	**English**, French, Spanish, Italian, Portuguese, Turkish, **Dutch + V2, Swedish +V2**
C02	F	German / Russian	**English**, French, Spanish , Italian, **Swedish + V2**
C06	F	German	**English**, Latin, Italian , French, **Dutch + V2**

In order to test the hypotheses outlined above, the framework for data collection consisted of three main components: (1) a lesson in Swedish, (2) a session with four communicative tasks which took place after the lesson and (3) a post-test two weeks after the Swedish lesson.

Prior to the Swedish lesson, the informants listened repeatedly to a recording of forty Swedish words (nouns, verbs, adjectives, adverbs) that were related to the communicative tasks used in the subsequent lesson while looking at picture cards illustrating these words. This was to ensure that the students

familiarized themselves with the vocabulary of the lesson and the related tasks. After this exercise all seven informants participated in a 30-minute one-on-one lesson conducted in Swedish by a native speaker who is a university lecturer of Swedish. During the lesson, a dialogue was rehearsed and a number of daily activities were described. The vocabulary introduced in the lesson was mainly based on the recorded words. The input provided by the teacher consisted of structures that were located at the different stages of the PT hierarchy, including different forms of negation and the occurrence of adverbs in varying positions in the sentence.

The overall aim of the lesson was to provide numerous contexts for the students to repeat utterances and thus to provide an environment for the production of formulaic speech (cf. Pienemann 2002; Aguado 2002). This focus on formulaic speech permits us to test our hypothesis that learners of a foreign language are able to repeat advanced L2 structures which they are unable to produce productively.

The communicative tasks were structured so as to ensure that they would elicit sentences that were different from the material rehearsed in the lesson. This precaution was taken to ensure that creative L2 constructions produced by the learners were not copies of rote-memorized sentences. The post-test followed the same format as the session with communicative tasks.

Results

The results of the PALU study for V2 are presented in Table 8 which is laid out as follows. The first column lists the informants; the second marks the presence of SVO. The third column details the frequency of the structure *advSVO which is ungrammatical in both the source and the target language. The column headed 'V2' lists information about the presence (+) or absence (-) of V2 in the sample of the individual learners. The column 'L2=V2' specifies if the informant acquired a V2 language as an L2 before the study. The next column specifies if the informant has learnt Swedish before, and the last one gives the frequency of V2 imitations in each sample.

Table 8. Swedish word order in the PALU study.

Informant	*SVO*	***adv SVO**	*V2*	*L2 = V2?*	*Swedish before?*	*Imitation of V2*
C03	+	14	-	-	-	16
C05	+	25	-	-	-	14
C07	+	-	-	-	-	10
C04	+	-	-	-	-	20
C01	+	30	-	+	+	30
C02	+	15	-	+	+	15
C06	+	13	-	+	-	9

Table 8 shows that all learners produced novel SVO sentences even though the lesson consisted only of sentence repetitions. This shows that the minimal input was sufficient to stimulate language production. As can be seen from the last column, all learners were also able to repeat V2 sentences correctly even without any previous input in Swedish. This observation confirms our hypothesis that learners are able to store and repeat sentences containing advanced structures. In contrast, none of the learners produced V2 structures spontaneously[24] (column 4). As can be seen from the data in column 3, five of seven learners produced fronted adverbs and adverbials. In other words, these learners did not produce V2 although they produced the structural condition for V2. The reader will recall that adverb fronting is a structural condition for V2 in the informants' L1 as well as in the target language, i.e. a situation where transfer at the initial state would have been expected under the full transfer assumption. As shown in column 5, non-production of V2 after adverb fronting appears with learners who acquired non-V2 languages before Swedish as well as with those who acquired V2 languages as second languages and even with the two informants who had learned Swedish before. In other words, our corpus does not contain a single example of V2 even though the learners know this structure from their L1 and they had plenty of opportunity to use it. This finding constitutes strong evidence supporting the DTMH.

Apart from the focus on V2 the data were also analyzed in relation to the position of the negator. For sentence negation the position of the negator in declarative sentences with lexical verbs are distributed as follows in the three Germanic languages relevant in this study:

German	V+neg
English	DO+neg+V
Swedish	V+neg

In studies of second language acquisition forms such as *don't* are often treated as one lexical entry which serves as a negator in the interlanguage. This approach is useful in early SLA when the corpus does not contain any lexical or morphological variation of the negator or the auxiliary. However, Bardel & Falk hypothesize that L3 learners are able to transfer developmentally advanced structures from the L2. Therefore our analysis

[24] We use a minimal definition of "spontaneous production" in this context. For the purpose of this study we assume that structures which are not copies of the previous utterance are produced spontaneously. This minimal definition has to be seen in the context of the hypothesis we tested, namely that at the initial state advanced structures such as V2 can be repeated straight after a stimulus sentence has been presented, but that learners will not be able to produce this structure spontaneously. This minimal definition of "spontaneous production" ensures that our hypothesis is highly falsifiable. It ensures that "unwanted" data cannot be classified as formulaic copies.

treats the negator and the verbal element *do* as two distinct constituents as they appear in the target language.

Table 9 displays the distributional analysis of the use of negation in the sample. The first column identifies the informant. The next three columns contain the counts of examples of the key structures neg+V, V+neg, aux+ neg+V and DO+neg+V. The next two columns specify if the learners have an L2 containing V2 and if they have learned Swedish before.

Our analysis focuses on the first six informants in Table 9 because informant C06 produced exclusively lexical forms of the negator which do not exist in Swedish and which were not contained in the input. Learners C01 and C02 have previously learnt Swedish. Therefore, any structures appearing in their sample may be residual effects of their knowledge of Swedish. Of the four remaining learners three produce preverbal negation, i.e. the developmentally earlier structure. The only exception is C07. This observation supports the DMTH which predicts that developmentally late structures can only be transferred when the interlanguage is ready for it.

Table 9. Negation.

Informant	***neg V***	***V neg***	*aux+neg+ V*	*DO+neg +V*	*V2=L2?*	*Swedish before?*
C03	14 +	1 -	0	0	-	-
C05	17 +	0 -	0	0	-	-
C07	0 -	16 +	0	0	-	-
C04	12 +	4 (-)	0	0	-	-
C01	1 -	16 +	0	0	+	+
C02	15 +	0 -	0	0	+	+
C06	indiv. strategy	indiv. strategy	indiv. strategy	indiv. strategy	+	-

Given that all learners also have English as their L2, and are highly proficient speakers, the above data also permit a test of the L2 transfer hypothesis. According to this hypothesis the learners would be expected to transfer DO-insertion from English. As can be seen in column 5 of Table 9, none of the learners transfer DO-insertion. Column 4 shows that in addition aux+neg+V[25] does not appear either. This finding boldly contradicts Bardel & Falk's prediction that L3 learners will transfer structures from L2 English.

[25] Note that for the purpose of this analysis 'aux' includes auxiliaries and modals.

Summary and discussion

The current debate about the role of the L2 transfer was prompted by the study by Håkansson et al. who found that Swedish learners of German do not transfer V2, although V2 is part of German and Swedish grammar. They explained this phenomenon with reference to PT and the assertion that V2 is too complex to be processable at the initial state.

Bohnacker hypothesized that the non-transfer of V2 in the study by Håkansson et al. was due to the effect of English, the L2 of all learners in their study. Bohnacker presented her own study of German as L2, conducted with elderly Swedish learners of German who were reported not to have any English as L2 as an intervening variable. She showed that these learners were more accurate in the use of V2 than Swedish L2 learners of German who had learned English as an L2. However, the reanalysis of her data in the form of an implicational analysis demonstrates that all learners in her study had already acquired V2. Therefore her study did not show that V2 is transferred at the initial state and that the previous knowledge of intervening L2 is limited to an effect on grammatical accuracy.

Bardel & Falk (2007) repeated Bohnacker's claim about the effect of L2 English in the acquisition of German by Swedes. They present two studies of the acquisition of V2 languages by learners with different L1s and L2s. They aim to demonstrate distinctive L2 effects in L3 acquisition. One of their studies did not contain sufficient data to demonstrate their claim. The other study, based on four informants who received 45 minutes of exposure, relied heavily on the dominance of one of the L2s of the learner. B&F claim that it is the dominant L2 from which the learner makes full transfer and that this process suppresses L1 knowledge. We have shown that this position is inconclusive at a conceptual level; it does not specify how the mind identifies the strongest L2, nor what to do with other L2 knowledge, how this transfer-filter relates to linguistic knowledge and performance nor how it can be operationalized. In addition, it remains unclear in B&F's study which of the limited utterances produced by the learners after a one-off 45-minute session were mere repetitions of input and which were productive utterances.

Our own study was based on the acquisition of Swedish as a target language by seven learners with different L2s. All the learners were highly proficient in English, all had several other L2s, and three of them had L2s with V2. All learners were able to repeat V2 sentences in Swedish, but none of them were able to use this structure productively. This observation strongly supports the DMTH and also demonstrates that formulae can easily distort research findings in studies focusing on the initial state.

Our study also focused on the acquisition of negation. We were able to show that except for one learner, all relevant informants acquired the developmentally earlier structure (neg+V). We also demonstrated that none of the

learners transferred DO-insertion from English, or any similar structure. Both these observations clearly support the DMTH.

The study focused on the restrictive effects of processability on transfer. In this context, the DMTH might be misconstrued as a non-transfer approach. This would be incorrect. As pointed out in the first section of this chapter, the DMTH defines constraints on transfer. This implies that restrictive and productive effects of the L1 will materialize at predictable points of development. Pienemann et al. (2005) reported on productive effects of L1 transfer at points of processability. Also, the DMTH does not exclude the possibility that L2 features may be transferred to the L3. However, as shown above, for any L2 transfer hypothesis to make a genuine contribution to a theory of SLA it needs to be fully operationalized and theoretically motivated. Anything less would be no different than any of the speculative approaches the field has experienced over the past few decades.

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Learning in two languages

Consequences for lexical development in Swedish and Arabic

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Introduction

The demographic structure of Swedish society has changed significantly over the last decades through immigration. Today 27% of the total Swedish population of 9,6 million are either born abroad or have one or both parents born abroad. In the city of Malmö, in the very south of Sweden, this applies to 38% of the population of 300.000 inhabitants (Statistics, Malmö Council 2009). The proportion of language minority students in schools in Malmö is well over 50%, and children with Arabic as their first language constitute one of the largest groups.

In ethnically diverse residential areas the proportion of bilingual pupils in schools is 75–100%. The academic achievement level of minority students is significantly below average (Statistics, National School Authorities 2008). In order to attend to the needs of these pupils, a project with bilingual Swedish-Arabic classes was started in an ethnically very diverse area in Malmö. The children in the bilingual classes became literate in both Arabic and Swedish, and were also educated in school subjects in both languages. During the first school year the children were exposed to Arabic to a high degree. By every school year the amount of Swedish increased and Arabic decreased. Several aspects were studied in the project regarding language development in both languages as well as academic success. School leaders, teachers, parents and pupils were also interviewed about their views on bilingual education.

The overall aim of the present study is to investigate possible effects of bilingual education on lexical size and organization in both Swedish and Arabic.

Background

Children who are educated in their second language often have difficulty reaching higher levels of educational achievement, which has been shown in several international studies (see e.g. Thomas & Collier 2002). They are often faced with the challenge to simultaneously develop a new language and complete their education mediated through the new language. As a result they may develop a second language lexicon with insufficient proficiency in basic vocabulary. They learn words that are difficult and abstract, since these are the words explained in school. Basic words in their second language do not receive much attention, since it is often taken for granted that these words are already established (Viberg 1996).

If children who encounter a second language later in childhood are not sufficiently exposed, they often tend to display gaps in their second language lexicon. These gaps may affect both the basic vocabulary and the vocabulary learned in school, mostly relating to school subjects. In a study regarding lexical development in Turkish-Dutch children aged 4, 6, and 8 years Verhallen and Schoonen (1998) showed that the size of the Dutch lexicon increased across age groups also in this group. But the original gap in the basic vocabulary in Dutch between the bilingual and monolingual children did not disappear over time. The gap widened with age, and as a consequence the oldest Turkish-Dutch children lagged behind most.

According to Verhallen and Schoonen (1998) children who learn a second language lag behind not only in lexical size but also in amount and kind of knowledge regarding individual words. Word acquisition cannot be defined as a question of whether a word is acquired or not; rather it is a question of how extensive the knowledge of a word is. Focus should not only be on the number of new words in a child's lexicon, but also on in-depth knowledge of internal relations between familiar words. Within the lexicon one or several meanings are attached to every word, together with phonological, grammatical and semantic information.

Acquisition of lexical abilities can be described according to different parameters, and in the present study a model presented by Meara (1996) will be used. Size is a fundamental parameter in Meara's model, but as the lexicon grows the need for lexical organization increases steadily. One way to identify a well-structured lexicon is to test lexical organization by using word association tests. Lexical organization is an important tool when there is a need to differentiate between learners with varying proficiency. According to Meara results on most linguistic tasks differ between persons with a well-organized lexicon and those with the same lexical size but with an ineffective lexical organization.

Namei (2002) questions earlier research results that second language speakers should be more prone to organize their lexicon according to phonological principles, while first language speakers use more semantic prin-

ciples. She suggests that the use of phonological and semantic principles regarding lexical organization is a product of linguistic experience. Rare and unknown words are organized according to phonological principles, partly known words are organized syntagmatically and frequent words paradigmatically. This applies to speakers of both first and second languages.

In a study concerning Turkish-Dutch children Verhallen and Schoonen (1998) studied lexical knowledge in both languages in school years 3 and 5, by asking the children to explain the meaning of common nouns in Dutch and Turkish. The results were compared with those of monolingual Dutch children. The results showed that the lexical knowledge in Turkish was not extensive enough to compensate for the poor lexical knowledge in Dutch, since the children could not provide any explanations in either language. One reason for this may be that the lexical knowledge in Turkish did not become restructured and developed into academic concepts in school, since the educational language of the children was Dutch. The Turkish lexicon was restricted to contextualized common concepts, and in Dutch the children did not have a stable lexical base from which they could restructure their Dutch lexicon and increase their lexical knowledge.

Lexical development

Early lexical development is characterized by fast development, and the ability to categorize objects and activities is a prerequisite for lexical growth. The most basic principle in the early preschool years is based on phonological associations, also called clang associations, for example *cat – hat* or alliterations as *cat – can*. Later during the preschool years the child will develop syntagmatic associations. The association to the word *dog* might be 'barks' or 'bad', creating syntactic sequences with semantic connections, as *the dog barks* and *bad dog*.

When a child starts school and learns to read s/he also learns new words continuously and is confronted with new meanings and meaning relations, which develop and enrich the knowledge of already familiar words. The child is exposed to a continuing process of generalizing, categorizing and abstracting, and has to apply decontextualized knowledge. The language used in textbooks also requires an understanding of words in a paradigmatic way since paradigmatic relations allow for generalisations. The lexicon grows fast and thus the reorganization of associative lexical-semantic networks becomes a necessity in order to facilitate lexical retrieval, an essential skill for academic success (Nelson 1977; Verhallen & Schoonen 1993, 1998; Namei 2002; Cronin 2002; Schoonen & Verhallen 2008).

As a consequence the child will develop an increasing amount of paradigmatic associations with coordination as well as super- and subordination. These associations are more effective for word retrieval.

Associations to the word *dog* may be 'cat', 'animal', 'spaniel', 'tail'. Paradigmatic associations like these usually belong to the same word class in contrast to syntagmatic associations that are inconsistent with the word class of the stimuli word (Namei 2002). The shift to a mostly hierarchical lexical organization, sometimes called the syntagmatic-paradigmatic shift, usually occurs between 6–10 years of age, an age-range that corresponds to the first school years with formal reading and academic instruction.

A new word entering the lexicon of a second language will usually elicit clang associations first, and when the word is more established syntagmatic associations will appear. Only high-frequency words will elicit paradigmatic associations, reflecting a hierarchical organization with super- and subordination, while unfamiliar words tend to elicit clang associations even in adults. This means that different stages of associations may exist within the same individual (Cronin 2002).

Namei (2002, 2004) studied the syntagmatic-paradigmatic shift in 50 monolingual Swedish and 50 Persian children and in 100 bilingual Swedish-Persian children and young people between the ages of 6 and 22 years. For all participants clang associations were more frequent for barely known or unknown words, partly known words had a strong syntagmatic organization and words deeply integrated in the lexicon were paradigmatically connected to other words. She also found that the syntagmatic-paradigmatic shift occurred in both languages between the ages of 6–10 years of age, although bilingual children are less exposed to each language compared to monolinguals who are exposed only to one language. The syntagmatic-paradigmatic shift may thus be a function of cognitive development of the same period, also suggested by Nelson (1977).

Schoonen and Verhallen (2008) pointed out that lack of a decontextualized lexical knowledge is not always obvious since it can be obscured by a superficial facility in the way a child uses words. Teachers and other school staff are often surprised when faced with the poor word knowledge some children display regarding words in the second language that are considered well-known. Only when bilingual children are able to organize their lexicon according to super- and subordination will it be possible to reduce the difference in knowledge of words between bilingual children and their native peers.

If a bilingual child is sufficiently exposed to both languages, a more efficient lexical organization may develop earlier compared to monolingual children. Sheng, McGregor and Marian (2006) studied lexical-semantic organization in Mandarin-English children and showed that bilingualism may enhance a paradigmatic organization of the lexicon. There is strong empirical support that bilingual children tend to separate words and their meanings earlier than monolinguals, since they have two words for a given referent. This may cause an earlier development of semantic relations in the bilingual lexicon, and initiate an interest in relationships between words.

Having words for a given referent also means that the child must process and organize more words than monolingual children, which may improve the organizational ability of the child, thus enabling a more paradigmatic approach (Peña et al. 2002).

Method

Participants

The 16 children in the project group were assessed in grade 4, at 10–11 years of age as shown in Table 1 below. All had received bilingual education in both Swedish and Arabic from grade 1. To enable comparison, a control group of 33 age- and gender-matched Swedish-Arabic children in grade 4 participated. They had received education in Swedish only, but were offered two Arabic lessons a week by a mother tongue teacher.

Table 1. Participating children.

Gender	*Project group age 10–11 yrs grade 4*	*Control group age 10–11 yrs grade 4*	*Total*
Boys	4	9	13
Girls	12	24	36
Total	16	33	49

All children lived in the same ethnically very diverse residential area in Malmö. They were also considered to have a typical language development in Arabic by teachers and parents. No monolingual Swedish-speaking children attended any of the participating schools in this residential area.

The children were not categorised as simultaneous or successive bilinguals. The division between simultaneous bilinguals, exposed to two languages before the age of three, and successive bilinguals, exposed to a second language after the age of three, suggested by McLaughlin (1978), is difficult to maintain for bilingual children from multi-ethnic areas (Håkansson et al. 2003). The children in these areas are primarily exposed to adult and peer models of bilingual Swedish, since competent speakers of Swedish both as first and second language are scarce in their residential area.

Data

Lexical organization was tested with free word associations. Such tests require that the subject responds with the first word that comes to mind, when the stimulus word is presented. Kent and Rosanoff (1910) devised an

association list of 100 common English words that has since been used in many studies regarding lexical development in the mother tongue, in second language and foreign language learning (Namei 2002; Norrby & Håkansson 2007). The list contains 71 concrete and abstract nouns and 29 adjectives. The Swedish translation of the Kent-Rosanoff list in Namei (2002) was used in this study. For the present study the list was translated into Arabic and reviewed by an Arabic-speaking linguist. In some cases allowances for differences in colloquial Arabic from the East Mediterranean region and Iraq were made, by using different words for the same concept. The words were translated back from Arabic to Swedish and with few exceptions the words corresponded to the words in the Swedish list. The agreement was 98%.

The Arabic test of the Kent-Rosanoff list was conducted by an Arabic-speaking teacher, and the Swedish test by two master students in speech language pathology. For practical reasons most children were tested in Arabic first. The interval between the test sessions was two or three weeks. The test sessions were recorded. To ensure reliability in classification 10% of the material was randomly chosen and the interreliability agreement between three classifiers was 90% for both languages.

Analysis

The assessment of the associations of the Kent-Rosanoff list in both languages was based on a total of 1600 responses in each language from the project group and a total of 3300 responses in each language from the control group. The word associations were classified as clang, syntagmatic or paradigmatic associations. In some cases these categories could not be applied, and two extra categories were added. The category 'other' comprised associations that could not be classified due to an unclear connection with the stimulus word, misunderstandings and repetitions, and the other extra category was 'no answer'.

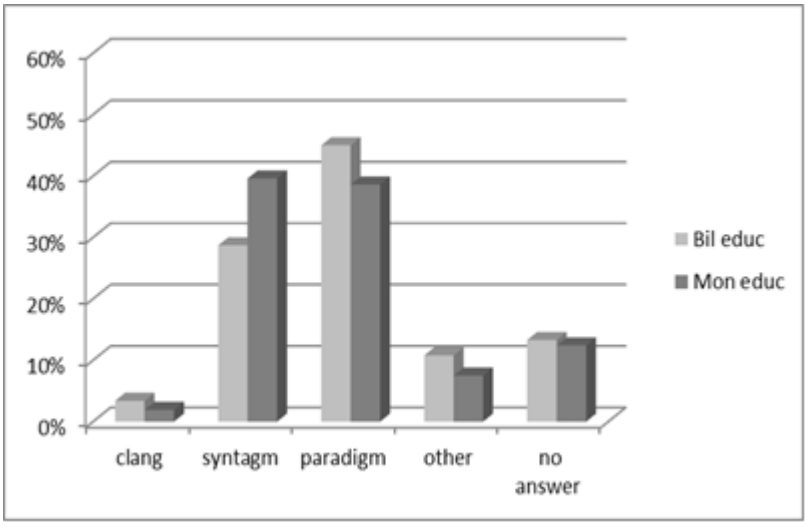
Examples of clang associations are *hus – mus* ('house – mouse'), *sax – lax* ('scissors – salmon'). In some cases the response was a rhymed nonsense word or alliteration. Examples of syntagmatic associations are *frukt – äta* ('fruit – eat'), *kvinna – du* ('woman – you'). Grammatical derivations were also counted as syntagmatic, such as *blom – blomma* ('blossom – flower'), *man – manlig* ('man – manly') according to the procedure in Namei (2002). Examples of paradigmatic associations are *pojke – flicka* ('boy – girl'), *bröd – smör* ('bread – butter').

The following associations were categorized as 'other', or not classifiable: repetitions of words or part of words; misunderstandings, e.g. *ugn – gammal* ('stove – old'; the word 'ugn' is very similar to 'ung' ('young')); incomprehensible associations as *vitkål – pyjamas* ('cabbage – pyjamas'); associations in Swedish when tested in Arabic and vice versa, and

neologisms such as *hammare – spikare* ('hammer – nailer'). The category 'no answer' included answers such as "I don't know" and no answers at all.

Results

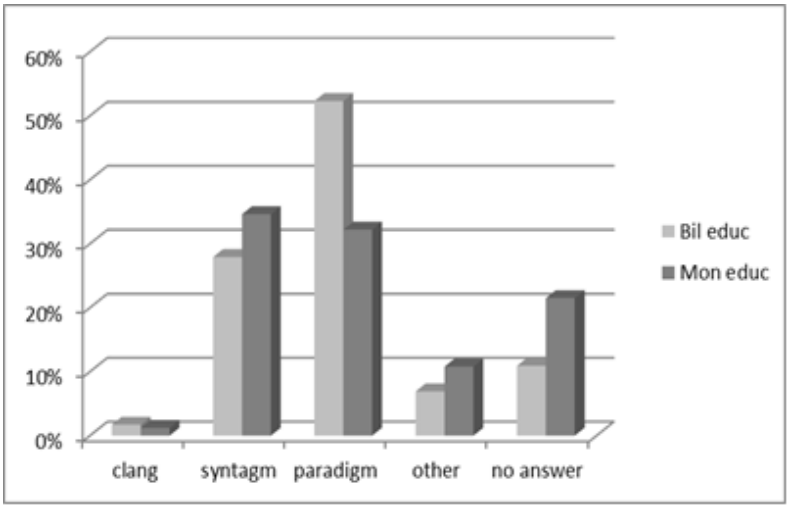
A comparison of proportions regarding paradigmatic and syntagmatic responses in Swedish in both groups is shown in Figure 1 below. The project group (bilingual education) displays more paradigmatic than syntagmatic responses, while the control group (monolingual education) displays more syntagmatic than paradigmatic responses, although they are educated in Swedish only. The difference between the proportions of syntagmatic and paradigmatic responses in each group was not significant, however (Mann-Whitney, p=0,105; z= -1,621).



Figur 1. Results from the Kent-Rosanoff list in Swedish.

The results in Arabic regarding paradigmatic and syntagmatic responses are displayed in Figure 2 below and display the same pattern as in Swedish with at higher proportion of paradigmatic responses compared to syntagmatic responses in the project group, who received bilingual education. The difference between syntagmatic and paradigmatic responses in Arabic is significantly larger in the project group (Mann-Whitney, p=0,021; z=-2,315). The children in the project group thus produce significantly more paradigmatic responses than syntagmatic compared to the control group.

The children who were educated in both Swedish and Arabic produced a more hierarchical lexical organization in Arabic. Their results displayed significantly more paradigmatic responses compared to the control group.



Figur 2. Results from the Kent-Rosanoff list in Arabic.

Discussion

Verhallen and Schoonen (1998) found that bilingual children could not rely on their mother tongue lexicon for lexical development in their second language, since lexical size and organization were insufficient in their mother tongue. There was "a mismatch between their L1 knowledge and the L2 requirements" (1998:456). Lexical development in the second language needs a solid base to facilitate restructuring of common concepts into academic concepts, but this base is often lacking in the bilingual child. Verhallen and Schoonen showed that since the bilingual children's knowledge of words was restricted also in Turkish, they could not rely on their mother tongue to counteract their lexical difficulties in Dutch.

The children who were educated in both Swedish and Arabic produced a more hierarchical lexical organization in Arabic. Their results displayed significantly more paradigmatic responses compared to the control group. The much larger exposure to Arabic in school in the present study gave the children in the project group an opportunity to increase their knowledge of words and relations between words in their Arabic lexicon to a higher extent.

The amount of exposure to both mother tongue and second language is essential to language development, not least for lexical size and organization (Paradis 2010). As Verhallen and Schoonen (1998) pointed out in their study on Turkish-Dutch children, bilingual children are not always helped by extensive exposure only to their second language. New words are not gradually incorporated in their second language lexicon, and the knowledge of

familiar words in the mother tongue does not increase if the exposure is insufficient. These results may partly explain the significantly lower proportion of paradigmatic responses in Arabic in the control group with education in Swedish only. The project group, children with bilingual education, had the possibility to develop their lexical organization in Arabic. This is reflected in their ability to develop everyday concepts into academic concepts in Arabic to a greater extent, and transfer them to their second language.

As is shown in another study of this project concerning academic success (Tvingstedt & Salameh 2011) the project group learned to read and write in Arabic with no detrimental effects on their reading ability in Swedish compared to the control group. The more hierarchical lexical organization is likely to have been promoted by the children's reading development (Cronin 2002) in both languages, enhancing their ability to organize the lexicon according to more advanced semantic principles.

Although the results of this study are based on a limited number of school children, they persistently point to the critical role of language exposure, and the necessity to expand lexical size and organization in both languages. Both in this study and in Ordónez et al. (2002) the mother tongue plays an important role in the development of paradigmatic skills. Education in the mother tongue aimed at strengthening this language may also promote better lexical skills in the second language.

The results in this study underline the necessity of organizational changes to give bilingual children access to a linguistic environment adapted to bilingual development, with education and peer interaction in both languages. Results from research into bilingual education indicate that this promotes academic success to a higher degree. However, such an education must stretch over several years to yield sustainable results (see for example Thomas & Collier 2002).

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"Flera språk – fler möjligheter" – Immigrant children's acquisition of English in bilingual preschools[26]

Anja K. Steinlen

Introduction

To what extent is the effectiveness of early immersion education affected by the home language background of the child? Are immersion programs at preschool equally suited for majority language pupils (i.e. children whose first language (L1) is the official or dominant language of the wider out-of-preschool community) and minority language pupils (i.e. children from family backgrounds where a different language is spoken than the official or dominant language of the wider community)? This is a controversial issue, particularly among policy-makers. There is general consensus, at least among researchers, that for majority language children immersion education leads to additive bilingualism, with high levels of second language (L2) proficiency and native-like levels of monolingual L1 proficiency (e.g. Wesche 2002). There is still debate, however, whether immersion education is equally beneficial and suited for minority language children, particularly minority language children from a so-called immigrant background. Immigrant children in many Western countries have been shown to have difficulties acquiring the host nation's official language (which for them constitutes their de facto L2).[27] For instance, Knapp (2006) distinguishes three groups of immigrant children, namely immigrant children with a good command of the L2, those with a poor command of the L2 and those with "concealed L2 problems" which become apparent later in school. Furthermore, researchers have reported that some immigrant children occupy unfavourable positions in the educational system of the host country and often

[26] This text is based on findings presented in Rohde (2010) and Steinlen et al. (2010a).

[27] In preschools, the language of the host country and the newly introduced foreign language English may, of course, not be the children's L2 and L3, but their L4 or L5, depending on the languages being used at home.

achieve significantly lower overall scores than their majority language peers (cf. Biedinger 2010). What has been examined in less detail, however, is how immigrant children fare with respect to the learning of yet another additional foreign language at school such as English (referred to as the children's L3).

For the mainstream school context in Germany, for example, the results of DESI (Deutsch-Englisch-Schülerleistungen-International, an international study of student performance in German and English) showed that minority language students in grade 9 who acquired German as L2 had fewer difficulties learning English and even attained higher levels of English than majority language students who grew up in monolingual German families (Klieme 2006). Elsner (2007) examined how Turkish children learning English in German primary schools fared with respect to their comprehension skills in English as a foreign language. She reported that their English listening comprehension skills were considerably lower than those of their monolingual peers. She concluded that 'multilingualism' does not necessarily lead to better results in English. She attributes this result to the fact that these Turkish children had deficits in their L2 German which in turn affected their comprehension skills in English negatively. In Canada, there are convergent findings from immersion education. In her literature review, Hurd (1993) concluded that minority language children may benefit from early immersion programs only as long as there is strong support for L1 development, because otherwise, such a program could result in a subtractive bilingualism situation for minority language students (see also Dagenais & Day 1998; Swain and Lapkin 2005; Taylor 2006 for similar results). In general, all authors demand more research with a greater number of children in order to examine in more detail the challenges and successes encountered by multilingual students.

The ELIAS project

The EU-funded project ELIAS (Early Language and Intercultural Acquisition Studies), from which the data presented here originate, was a multilateral EU Comenius project, carried out in Sweden, Germany, Belgium, and England between 2008 and 2010. In total, eighteen partners were involved, including universities and educational institutions, preschools, and a zoo. The children participating in the project were preschool children who spoke at least one other language at home than the majority language. In addition to acquiring the ambient majority language of the wider community (i.e. their L2), these children were also faced with the task of acquiring English (often their L3) in preschool.

In the present study, the focus is on the acquisition of L2 English receptive grammar and vocabulary by children with and without immigrant back-

ground. As in other studies (e.g. PIRLS, Mullis et al. 2007), the term *immigrant background* will be used as the parents of these children were not born in the countries under scrutiny (i.e. Sweden, Belgium, Germany) and their family language/s did not correspond to the ambient language, as the ELIAS parents' questionnaire revealed. As there were too many home languages involved to include a sufficient number of children for statistical analyses, the present study focuses on the children's immigrant background in general. The ELIAS project nevertheless offers a unique possibility to further examine in some detail the important issue of the impact of the child's immigrant background on the development of the foreign immersion language in a bilingual preschool setting.

The organization of bilingual preschool programs

The preschools, which were part of the ELIAS project, employed teachers from the respective countries (i.e. Sweden, Germany, and Belgium) as well as English native speakers or teachers with high foreign language skills (in this case English). According to the *one person – one language* principle (e.g. Ronjat 1913, Baker 2000), two teachers were usually present in each preschool class; one teacher only used the L1 of the children (i.e. Swedish, German, or French), and the other only their L2 (i.e. English). The new language was therefore used in everyday life as a means of communication and was not offered as a subject (e.g. Rohde 2005; Steinlen 2008b; Wode 2010; Weitz & Rohde 2010). This immersion type of foreign language teaching has proven to be the most successful way to learn a foreign language (e.g. Wesche 2002).

When they started preschool, the children usually had no or very limited knowledge of English. Therefore, together with what was being said, the teachers used many non-linguistic resources in order to allow the children to make a connection between the content and its significance (contextualization). For example, the teacher used body language such as facial expressions, gestures and pantomime, as well as pictures, picture stories, CDs, videos, objects, etc. (e.g., Steinlen 2008b; Kersten et al. 2010a). This type of language mediation is not new because children who arrive without knowledge of the preschool's ambient language are similarly immersed into the language of the host country (e.g. Kolonko 2001).

The development of English language skills in preschool

When the children started preschool, they were often withdrawn because they had to familiarize themselves with the new routines in preschool first. The new language seemed to be only one factor among many (e.g. Schilk et al. in press). After a few weeks, the children could easily follow the routines

of the preschool in the foreign language (e.g., *good morning, tidy up time, stop it*). The children quickly developed a conversational pattern with those teachers who only used English, where the children replied in their L1. After about three months, the children started to use single English words, as these examples from German preschools show: "Ich habe einen *dog*". "Es ist *tidy up time*". "*Let's go* raus". The children also started to translate for each other. At the end of the first year the children responded appropriately to the foreign language input (e.g. to more complex questions and prompts).

In the bilingual preschool programs studied prior to and within the ELIAS study, it was obvious that the children quickly developed receptive skills in the L2 with their L2 production lagging behind (Rohde & Tiefenthal 2002; Schilk et al. in press). As the L1 English preschool teachers were able to understand the ambient language outside preschool, there was never any communicative need to produce the L2 – especially not amongst the children. "Children all share the same first language so that from their point of view, there is no vital reason at all to take the trouble of resorting to an unknown language" (Wode 2001:429).[28]

Given this situation it was decided to primarily study the children's growing receptive knowledge, as they seemed to understand single words and formulas after only limited exposure. However, in previous, rather small-scale studies which examined the development of receptive and grammatical L2 comprehension in bilingual preschools (e.g. Burmeister & Steinlen 2008; Steinlen 2008a; Rohde 2005; Weitz & Rohde 2010), the focus was on majority-language children. Indeed, there is a lack of systematic studies of the acquisition of an additional language in bilingual preschools (often the L3 or the L4) by children with an immigrant background. Experience from previous projects indicates similar progress in the acquisition of English for immigrant children compared to children without such a background, even though this progress may occur later and may exhibit strong individual variation, depending on e.g. the personality of the child, family language/s, learning habits, to name just a few (see e.g. Burmeister & Steinlen 2008). Children with no or little knowledge of the preschool's ambient language often turned to the foreign language in preschool and apparently felt that they were "in the same boat" as the other children, as none of them were familiar with the new language (e.g. Schilk et al. in press; Wesche 2002).

[28] This situation shows why L2 acquisition in a bilingual preschool program cannot easily be classified as either naturalistic or classroom L2 acquisition. It has naturalistic features because the L2 is spoken in everyday situations and there is neither formal teaching nor a specific language focus involved. On the other hand, the L2 is only spoken by the native speaker preschool teachers and is thus not the main ambient language. In addition, it may be argued that, due to the group structure in a preschool, activities have to be arranged and organized to some extent and may thus be formal rather than naturalistic.

Research questions

In the following section, the results of the ELIAS Grammar Test (Kersten et al. 2010b) and of the BPVS II (British Picture Vocabulary Scale, Dunn et al. 1997), conducted in ten preschools in four European countries, are presented. The following questions are addressed:

1. What is the level of receptive English L2 grammar and vocabulary knowledge of children in bilingual preschools at two points in time (T1 and T2), compared to a monolingual English preschool group?
6. What is the impact of the children's immigrant background on their levels of receptive L2 grammar and lexical knowledge and on the amount of progress they make from T1 to T2? Do they reach similar levels of L2 grammar and lexical knowledge as their non-immigrant background peers?

Method

Because preschoolers are very different in terms of their cognitive and their motor and social skills, a test format had to be found that was appropriate for the age levels between 3 and 6 years. Picture pointing tasks have been shown to be effective to assess preschoolers' passive understanding of vocabulary and grammar (e.g. Bishop 2003: TROG-2; Dunn et al. 1997: BPVS II; Grimm et al. 2001: SETK 3-5). In the ELIAS project, the picture pointing tasks were successful because both older and younger children took part in the tests with joy.

All preschool children were tested individually in a quiet room they were familiar with (see Crain & Thornton 1998 on the importance of a child-friendly environment during an experiment). For the ELIAS Grammar Test (Kersten et al. 2010b), the child looked at three pictures before listening to a sentence that corresponded to one of the pictures. The child responded by pointing to the picture it thought represented the sentence. Before the test, the children were given two practice items with three pictures of different objects and an appropriate single word utterance to ensure they knew how to form the responses. The three pictures in each set differed in the following way: two of the pictures contrasted only in the target grammatical dimension (e.g. absence/presence of the plural inflectional marker -s: *cat/cats*). The third picture was a distractor, i.e. it was semantically related to the other two pictures and in most cases also lexically related. The distractor was used to ensure that the child understood the grammatical phenomenon required. The

children were tested on nine grammatical phenomena,[29] most of which have been used in the Reception of Syntax Test (e.g. Au-Yeung et al. 2000; Howell et al. 2003) and in the Kiel Picture Pointing Test (Steinlen & Wettlaufer 2005). It is therefore possible to relate the results of the present study to previous findings. In total, there were 54 test items (9 grammatical phenomena x 3 picture pairs x 2 test presentations per picture set). The session did not take longer than fifteen minutes.

The BPVS II (Dunn et al. 1997) is a standardized test instrument used to determine the receptive vocabulary of 3- to 15-year-old L1 speakers of English as well as the vocabulary of children learning English in Great Britain as an additional language (EAL).[30] Maximally 168 words are tested, through 14 sets with 12 cards, where the individual sets are allocated to age levels. Each card contains four pictured items, one of which is asked for when the BPVS II is administered. The BPVS II test is very similar to the Elias Grammar Test, but in contrast, the prompts consist of single words and the test is discontinued if eight or more errors are made.

Subjects

In 2009 and 2010, a total of 148 children (51% girls and 49% boys) from seven bilingual preschools in Germany, one in Sweden and one in Belgium took the ELIAS Grammar Test twice at an interval of 5 to 12 months. Of these, 39 children had an immigrant background. The children's age ranged between 3 and 6 years (mean: 54.4 months, SD = 9.4 months) and they had been exposed to English between 1 and 42 months at the time of Test 1 (mean: 14.2 months, SD = 8.9 months). At the time of Test 2, the children were between 4 and 7 years old (mean: 63.8 months, SD = 10.2 months) and their contact time with English was between 10 and 51 months (mean: 24.2 months, SD = 8.6 months). It was often the case that the older the children were, the more L2 contact they had; the younger they were, the less contact with English they had.[31] The family languages included about 35 languages, such as Turkish, Russian, Farsi, Arabic, Polish, Punjabi, to name just a few.

In the same period, a total of 200 children, 137 children without and 63 children with an immigrant background, from the same nine bilingual preschools in Sweden, Germany and Belgium, took the BPVs II twice at inter-

[29] The nine grammatical phenomena included subject-verb agreement for copula and for full verbs, presence or absence of the genitive marker 's and of the inflectional plural morpheme -s, affirmative / negative sentences, 3rd person singular possessive masculine / feminine, 3rd person singular pronoun masculine / feminine as subject and object, and word order.

[30] EAL does not necessarily mean the children's L2 but can be any further language added to the L1.

[31] The results of a bivariate correlation analysis (Spearman's rho) showed a strong correlation between the children's age and their exposure to English (0.387, $p < 0.05$).

vals of 5 to 12 months. The age of the children was 34 to 88 months at the time of Test 1 (mean 56.4 months, SD = 13.1 months), they were exposed to English 1 to 50 months (mean 14.2 months, SD = 9.7 months). At the time of Test 2, the children were 42 to 98 months old (mean: 67.3 months, SD = 13.3 months) and their L2 contact to the English was 10 to 61 months (mean 25.1 months, SD = 9, 3 months). Of the 63 children of immigrant background, 27 spoke the ambient language at home, for the remaining 36 children the family languages did not correspond to the ambient language.

In addition, twenty children from a monolingual English background in a preschool in Hertfordshire, England also took the ELIAS Grammar Test and the BPVS II twice. These monolingual English children served as a benchmark against which the performance of the bilingual preschool children could be compared. The benchmark children were of approximately the same age as the bilingual pre-schoolers. At the time of Test 1, the monolingual English children were between 3 to 5 years old (mean: 52.9 months, SD = 9.3 months) and between 4 to 6 years old at the time of Test 2 (mean: 59.4 months, SD = 9.6 months).

Results

The results show how the scores differed from Test 1 to Test 2 (i.e. five to twelve months elapsed between Test 1 and Test 2). The focus is on the nine preschools from Sweden, Belgium and Germany which offered a bilingual program. Altogether, the data of 149 subjects (ELIAS Grammar Test) and of 200 subjects (BPVS II) were used, including the data of 20 monolingual children from England. As the tests were a forced choice between three and four pictures, respectively, 33% (for the ELIAS Grammar Test) and 25% (for the BPVS II) represent chance level. In order to present an overview, the results for all children in bilingual preschools were collapsed and compared to monolingual English pre-schoolers, independent of their immigrant background. The section *Immigrant background* compares the English test scores for children with and without immigration background.

Development over time

As shown in Figure 1, the children received lower scores in Test 1 (50.2%, SD = 14.2) than in Test 2 (57.1%, SD = 16.2) for the ELIAS Grammar Test and lower scores at T1 (mean 79.4, SD = 15.2) than at T2 (mean 81.7, SD = 14.0) for the BPVS II. This difference is significant, as statistical analyses showed (see Footnote 31). That is, the more exposure to their L2 English the children received, the better their comprehension of selected grammatical phenomena and of selected vocabulary. Interestingly, this development starts already at an average exposure to English at 15.1 months because the child-

ren already score above the chance level of 33.3% and 25%, respectively. The results clearly show a development in the L2 of the children who attend a bilingual preschool, although English is not the ambient language outside preschool. Similar results were obtained for the monolingual English control group. They obtained higher scores in Test 2 than in Test 1, which is a clear indication that the children's L1 develops age-appropriately. [32]

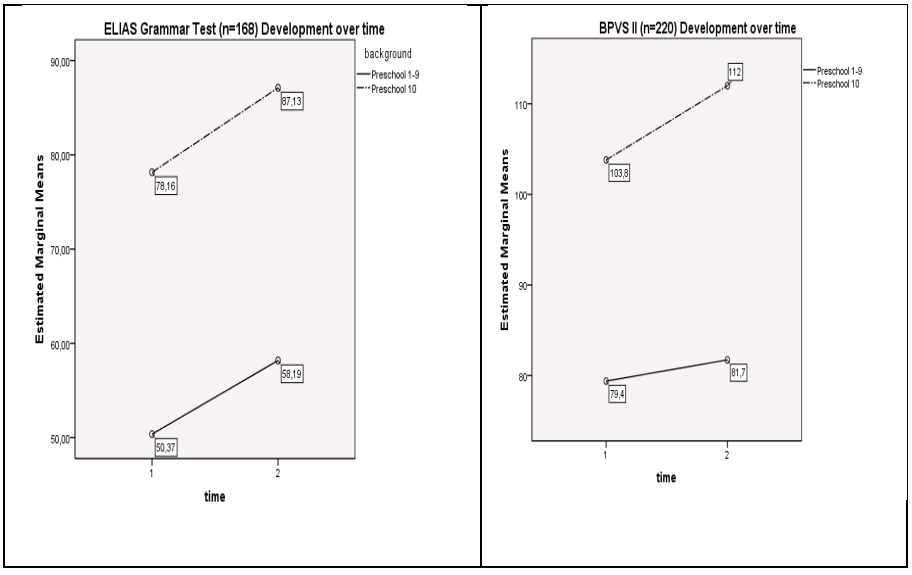

Figure 1. Scores of the ELIAS Grammar Test (left) and for the BPVS II (right) for all bilingual preschools combined (Preschool 1–9) and for the monolingual English children (Preschool 10), as obtained at Test 1 and Test 2.

As illustrated in Figure 1, the monolingual English preschool group scored considerably higher than the bilingual preschool groups: differences were significant for both test points and for both tests.[33] It is not surprising that the bilingual preschool group received lower scores in both tests as their ambient language is not English. A more detailed analysis revealed, however, that some of the children who had English in preschool for more than three years, performed almost as well as their monolingual English peers (Rohde 2010, Steinlen et al. 2010a).

[32] A repeated measure analysis revealed significant differences for time for bilingual and monolingual preschoolers (ELIAS Grammar Test: Time: $F(1, 166) = 45.349$, $p<0.05$, BPVS II: Time: $F(1, 218) = 11.167$, $p<0.05$).

[33] ANOVAs showed significant differences between the monolingual and the bilingual preschool group for Test 1 ($F(1, 167) = 69.852$, $p<0.05$) and for Test 2 ($F(1, 167) = 65.635$, $p<0.05$) for the ELIAS Grammar Test, similar results were noted for the BPVS II.

Immigrant background

Below we examine whether the variable immigrant background affected the results of the grammar and lexicon tests. As mentioned earlier, out of the 148 and 200 children who completed the ELIAS Grammar Test and the BPVS II, twice, 39 and 63 had an immigrant background.

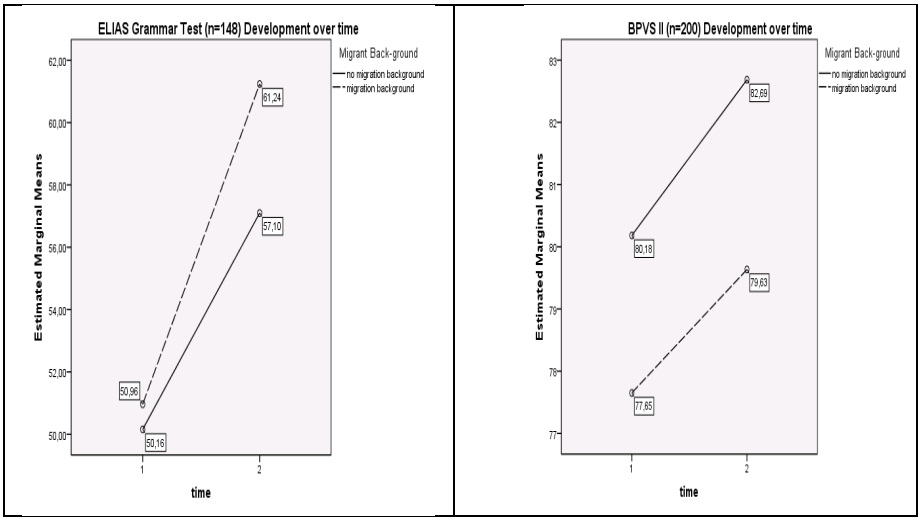

Figure 2. Scores of the ELIAS Grammar Test (left) and of the BPVS II (right) across all preschools, as obtained at Test 1 and Test 2, the focus is on +/- immigrant background. The results of the 20 monolingual English children are excluded.

As Figure 2 shows, all children obtained significantly better results at T2 in comparison to T1, in both test types. This indicates that the children, irrespective of their background, improved with respect to their English grammatical and lexical receptive abilities. Furthermore, no significant difference was found with regard to the scores obtained by children with and without immigration background for the BPVS II and for the ELIAS Grammar Test, independent of the time of the test.[34] Therefore, it seems that immigrant background by itself is not a good indicator for predicting how well children in bilingual preschools acquire certain grammatical and lexical items in the new language English.

[34] Repeated measure analyses for both tests with respect to +/- immigrant background did not reveal any differences for the interaction between time and immigrant background, only for time (ELIAS Grammar Test: Time*MigrationBackground: $F(1, 146) = 2.989$, $p>0.05$; Time: $F(1, 146) = 79.683$, $p<0.05$; BPVS II: Time*MigrationBackground: $F(1, 198) = 0.065$, $p>0.05$; Time: $F(1, 198) = 4.814$, $p<0.05$). As the interaction did not prove to be significant for both tests, the children with immigrant background were not further subdivided according to their home language.

Discussion

This study examined the development of L2 receptive grammar and lexicon in children with and without immigrant background who were exposed to English in a bilingual preschool context in Sweden, Belgium and Germany. The results suggest that children, irrespective of their immigrant background, learn a new foreign language as early as preschool and steadily improve their receptive vocabulary and grammar, as examined twice with a 5 to 12 month interval in between two test times. In fact, when the children were subdivided according to their exposure to English (see Steinlen et al. 2010a; Rohde 2010), some of the children who had English in preschool for more than three years, performed almost as well as their monolingual English peers. This result clearly demonstrates the feasibility of a bilingual program in preschools which offer English as an L2 in an immersion context (cf. Wode 2001; Rohde & Tiefenthal 2002; Rohde 2005; Burmeister & Steinlen 2008; Steinlen 2008a; Steinlen & Rogotzki 2009).

A comparison between children with and without an immigrant background did not produce any significant differences. This is a very encouraging result as it is often informally reported that children with an immigrant background are disadvantaged in a preschool setting in which yet another "new" language is introduced. It is these children who are reportedly more likely to be disadvantaged in learning contexts as neither their L1 (a minority language) nor their L2 (the ambient majority language) may be age adequate (Apeltauer 2004). For example, Elsner (2007) reported that in German primary schools immigrant children (in particular of Turkish background) were less successful in foreign language learning compared to their monolingual non-immigrant background German peers. Interestingly, later in their school career, this disadvantage seems to disappear (see e.g. Klieme 2006). Similar findings were reported for immigrant children in Canadian immersion school settings: the longer these children lived in Canada, the smaller the gap in foreign language performance between children with and without immigrant background, until it disappeared (e.g. McMullen 2004).

How can we account for the positive performance of immigrant children in terms of their lexical and grammatical development of English in bilingual preschools? First, the foreign language in an immersion setting is not taught in a formal context (like the subject English in school) but is used as a medium of communication. This approach seems very beneficial for immigrant children who simply acquire the foreign language from the way it is being used (e.g. Taylor 1992). Second, at least with respect to Germany, the immigrant children in the ELIAS Project seemed to have a high command of their L2 German, as the results of a German language proficiency test showed (SETK 3-5, *Sprachentwicklungstest für drei- bis fünfjährige Kinder*, Grimm et al. 2001; see Steinlen et al. 2010b). As German and English are typologically closely related languages, it may be assumed that the immigrant child-

ren's comprehension of English benefits from the acquisition of German (see also Bild and Swain 1989; Hurd 1993). It is likely that similar tendencies may be found for immigrant children in Sweden but less so for immigrant children in Belgium (as French and English are typologically less close).

The question of (psycho)typological relatedness in multilingual acquisition needs to be explored in more detail in a further study, which would also include information on the children's home language/s in order to provide a more complete picture of their language contexts and the development of all their languages. So far, it is unfortunately less than clear as to how the children's home language experiences may have affected the results of the ELIAS Grammar Test and of the BPVS II. One has to keep in mind, though, that these children may have benefited from the early immersion program because there was strong support for their L1 literacy, because otherwise, such a program could result in a subtractive bilingualism situation, as Canadian studies on immersion schools has demonstrated (see e.g. Hurd 1993; Dagenais & Day 1998; Swain & Lapkin 2005; Taylor 2006). This apparently was not the case for the children in this study. However, such an assumption needs to be examined in more detail using the ELIAS parents' questionnaire which also includes information on the parents' use of home language literacy practices.

What are the implications of these results? First, children are able to learn many languages, i.e. the brain can cater for more than one or two languages (e.g. Franceschini 2003) and bilingual preschools have been shown to be an ideal learning environment, where children, irrespective of their language or immigrant background, can acquire one or more language/s (Kersten et al 2010b). Second, children in bilingual preschools do not only learn a foreign language but also acquire additional skills, such as better concept formation, higher communicative flexibility and higher motivation for language learning (e.g. Bialystok 2001). As Cenoz (2003) points out, multilingualism may be associated with positive cognitive consequences as long as the children's L1s are valued. It is therefore important to strongly advise parents (with and without immigrant background) to use their family language/s regularly and to encourage them to read to their children, as early literacy (in any language) is an important predictor of later academic success in Western societies (e.g. OECD 2005).

Third, it is important to interpret foreign language acquisition processes in bilingual preschools in a differentiated way. An immigrant background does not seem to be the sole predictor with respect to the development of an additional language, as the results of this study clearly shows, where these children performed as well as their peers without immigrant background. Similarly, the immigrant child's acquisition of the host country's official language might not be impeded by attending a bilingual preschool. Consequently, it is advisable to encourage multilingual parents or parents with an immigrant background to let their children attend immersion programs. This

is a first step within the framework of educational institutions to enable all children to develop "flera språk – fler möjligheter",[35] as promoted by the EU (Commission of the European Communities 2003).

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[35] This expression has been taken from Gisela Håkansson's presentation on YouTube with the title "Språkutveckling och flerspråkighet". www.youtube.com/watch?v=kfvOJ9X_3tc [Accessed 22 March 2013.]

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Mongolisk skrift, mongoliska staten och mongolisk nationalism

Jan-Olof Svantesson

Bakgrund

Jag skall här försöka beskriva de yttre krafter som har bestämt valet av olika mongoliska skriftsystem och deras vidare öden. Även om det tar emot för en lingvist att erkänna det, tycks skriftens rent språkliga egenskaper spela en mycket liten roll när nya skriftsystem införs (eller avskaffas). I stället verkar det finnas tre huvudsakliga krafter som bestämmer: stat, religion och nationalism. I det mongoliska fallet har staten haft huvudrollen, men nationalismen är också inblandad.

Enligt Denise Schmandt-Besserat (1997) utvecklades det äldsta kända skriftsystemet, sumerisk kilskrift, från lerfigurer som representerar varor och som användes för bokföring av handelstransaktioner. Skriftens uppkomst hade i det fallet att göra med statens ekonomiska behov, även om det kan vara svårt att skilja stat och religion åt i detta och andra antika samhällen.

Exempel på skriftsystem som har införts av en stat helt utan religiösa baktankar, eller kanske snarare med antireligiösa baktankar, är de kyrilliska skriftsystem som på 1930-talet utarbetades för minoritetsspråk i Sovjetunionen, som uzbekiska, kazakiska, azerbajdjanska, tadzjikiska och många andra. Andra exempel är de latinska skriftsystemen för minoritetsspråk i Kina som skapades vid början av 1950-talet, t.ex. för zhuang, bouyei, wa och miao (se Svantesson 1991).

Skrift och religion

Religionen är antagligen den faktor som har haft störst betydelse för spridandet av olika skriftsystem. Missionärers iver att sprida heliga skrifter genom att översätta dem till folkens språk har nog varit den viktigaste orsaken till att olika alfabet har spritts över världen.

Det arabiska alfabetet spreds med islam till åtskilliga språk, som turkiska, persiska och malajiska. I många fall var religionen den enda orsaken till bytet av skriftsystem, t.ex. bytet från fornmalajisk till arabisk skrift. I Syd-

östasien var det buddhistiska munkar som spred de besläktade skriftsystemen för språk som khmer, thai, lao och många andra. På liknande sätt spred kristna missionärer det latinska alfabetet till både skriftlösa språk och till sådana som redan hade en skrift, t.ex. runor, i alla delar av världen. Ett annat välkänt exempel är att de makedonska munkarna Kyrillos och Methodios under 800-talet skapade en skrift för de slaviska folken.

Denna verksamhet fortsätter än idag. Ett sentida och typiskt exempel är den skrift som den svensk-amerikanske baptistmissionären Ola Hanson (1864–1927), född i Åhus, skapade 1895 för att skriva kachin, ett tibeto-burmanskt minoritetsspråk i Burma och Kina. Hans ändamål var just att översätta kristna texter: han översatte hela Bibeln och dessutom 400 svenska och amerikanska psalmer till kachin (Sword 1954). Hansons latinskbaserade skrift används nu allmänt av kachinerna i Burma, och med få ändringar har den blivit officiell skrift även för de kachiner (jingpo) som bor i Kina.

Skrift och nationalism

Uppkomsten av en nationalstat är ofta nära förknippad med skapandet av ett skriftspråk grundat på invånarnas talade språk och använt som rikisspråk i den nya staten (Anderson 1991). Det gäller t.ex. finska, tjeckiska och norska, där de nyskapade skriftspråken var bärare av nationalistiska strömningar. Ibland var religion också inblandad och bibelöversättningar var ofta bland de första texterna på de nyskapade skriftspråken.

I enstaka fall har messianska rörelser bland minoritetsfolk haft ett nybildat skriftsystem som sin kärna. Det var fallet med pahawh-hmong-skriften, skapad 1959 av en sådan rörelses ledare Shong Lue Yang (1929–71), av sina anhängare kallad Niam Ntawv ”Skriftens Moder”. Denna helt nyskapade – och lingvistiskt intressanta – skrift användes under en tid av delar av hmong-folket i Laos (Smalley et al. 1990).

Något liknande var kanske orsaken till att Ola Hansons kachin-skrift i Burma blev en sådan framgång. Även om Hanson var kristen missionär och inte en messiansk kachin-ledare i opposition mot den burmanska majoriteten verkar han ha fått en sådan roll. Han var ovanligt framgångsrik som missionär och omvände nästan halva kachinfolket till baptismen. Numera verkar han närmast ses som en mytologisk kulturhjälte. När hundraårsjubileet av kachinskriften firades av 30.000 personer – var tjugonde kachin – i Mandalay 1995 var den amerikanske baptistpastorn Tom Steller inbjuden till jubileet som representant för Hansons gamla kyrka. Efter att ha hört uttalanden som ”tidigare var vi vildar men tack vare Ola Hanson är vi nu civiliserade människor” kände han sig föranlåten att hålla en predikan där han betonade att äran i första hand tillkom Herren och inte Ola Hanson (Steller 1996).

Uigur-mongolisk skrift

Åter till Mongoliet. Enligt den kinesiska Yuán-dynastins historia (元史 *Yuánshǐ*), sammanställd 1370, tillkom det första skriftsystemet för mongoliska på order av den mongoliska statens skapare Djingis khan (1162–1227). En uigurisk ämbetsman Tatatong'a, som kunde det uiguriska skriftspråket bra, tillfångatogs år 1204 och beordrades att lära prinsarna att skriva mongoliska med det uiguriska alfabetet. Uigurerna var ett turkiskt folk i Centralasien, troligen inte de direkta förfäderna till de nutida uigurerna, utan till ett litet minoritetsfolk i Kina, shira yugur, de "gula uigurerna". Sitt alfabet hade de lånat från sogderna, ett iranskt folk i Centralasien, som i sin tur hade lånat det från den syriska skriften. Syriska skrevs, liksom arabiska och andra semitiska språk, i rader från höger till vänster, men sogderna vände skriften ett kvarts varv så att den kom att skrivas uppifrån och ner i kolumner som läses från vänster till höger, och detta skrivsätt togs över av uigurer och mongoler.

Den äldsta bevarade mongoliska texten är en steninskription kallad *Djingis khans sten*, daterad 1225. Det finns relativt få uigur-mongoliska texter bevarade från 1200- och 1300-talen. De flesta är kejserliga påbud eller brev; några har hittats i Vatikanbiblioteket. Den äldsta längre texten är *Mongolernas hemliga historia*, troligen skriven år 1228 eller 1240. Den finns bevarad endast i en version där det mongoliska språket har skrivits med hjälp av kinesiska tecken, men de flesta forskare anser att originalet måste ha varit skrivet med uigur-mongolisk skrift.

De äldsta religiösa (buddhistiska) skrifterna är lite senare, från början av 1300-talet, så religionen spelade ingen roll för tillkomsten av det uigur-mongoliska skriftspråket, det var helt och hållet en statlig angelägenhet, även om skriften senare användes för alla typer av texter, även religiösa.

Den uigur-mongoliska skriften används fortfarande av mongolerna i Kina, men i Mongoliet ersattes den av kyrillisk skrift under 1940-talet. En reformerad variant av skriften skapades 1648 av den dzungariske laman Zaya Pandita (1599–1662). Denna skrift användes för att skriva oiratiska (västmongoliska), den mongoliska variant som talas av mongolerna i västra Mongoliet och nordvästra Kina, och som efter hand hade utvecklats till ett självständigt språk. Den oiratiska skriften, som kallas *todo bicig* 'den klara skriften', var mer anpassad till talspråket och nästan helt fonematisk. Den används fortfarande av en del västmongoler i Kina. Många av dessa mongoler utvandrade på 1600-talet till södra Ryssland och slog sig ner vid Volgas utlopp i Kaspiska havet. De fick namnet kalmucker och använder numera det kyrilliska alfabetet.

’Phags-pa-skrift

Mindre än hundra år efter att den uigur-mongoliska skriften hade kommit till skapades ett nytt skriftsystem på initiativ av Djingis khans sonson Kubilai (1215–94), grundaren av den mongoliska Yuán-dynastin som erövrade hela Kina. Denna skrift, som var baserad på det tibetanska alfabetet, designades av laman ’Phags-pa (1235–80). ’Phags-pa-skriften gjordes 1269 till Yuán-dynastins officiella skrift, och skulle användas i hela det mongolisk-kinesiska imperiet för att skriva de tre officiella språken mongoliska, tibetanska och kinesiska. I verkligheten kom den inte att ersätta den uiguriska skriften för mongoliska och definitivt inte de kinesiska och tibetanska skriftsystemen. Endast ett sextiotal mongoliska ’Phags-pa-texter är bevarade (och inte många fler på tibetanska och kinesiska). Troligen finns det oupptäckta texter i tibetanska och mongoliska arkiv, ett mongoliskt ’Phags-pa-dokument dök för några år sen upp som en illustration i en tibetansk turistbroschyr, som forskarna genast kastade sig över. De flesta ’Phags-pa-dokumenten är kejserliga befallningar, men det finns också några religiösa steninskriptioner. ’Phags-pa-skriften användes alltså endast för officiella ändamål, det enda undantaget är en stenkruka med inskriptionen *sajin darasu* ’gott vin’.

’Phags-pa-skriften verkar ha använts mer som en symbol för Yuán-statens makt än som en praktiskt användbar skrift. Den överlevde inte dynastins fall 1368.

Andra äldre skriftsystem för mongoliska

Även om den uigur-mongoliska skriften var den enda som allmänt användes av mongolerna fram till mitten av 1900-talet finns det enstaka äldre mongoliska texter skrivna på andra sätt. Det mest kända exemplet är, som redan nämnts, *Mongolernas hemliga historia*, där mongoliska språket skrevs med kinesiska tecken. Kinesisk skrift används också i en del mongoliska ordlistor och parlörer från 1300-talet. Det finns också en omfattande ordbok, *Muqaddimat al-adab* ‘Inledning till litteraturen’, från 1300-talet, där mongoliska ord och deras motsvarigheter i centralasiatisk turkiska (tjagataiska) är skrivna med det arabiska alfabetet. Arabisk skrift användes av de centralasiatiska turkfolken ända fram till 1920-talet.

Mongoliska texter skrivna med dessa skriftsystem ger värdefulla upplysningar om hur mongoliska uttalades i äldre tider, och språkhistorikerna är mycket förtjusta i dem. Men de var nog aldrig avsedda för att användas i dagligt bruk.

Kyrillisk-mongolisk skrift

Efter grundandet av Folkrepubliken Mongoliet 1924 blev Mongoliet nära förbundet med Sovjetunionen, fastän det hela tiden förblev en självständig stat. Detta återspeglades också i skriftpolitiken. Under 1920-talet och början av 1930-talet skapades nya skriftsystem baserade på det latinska alfabetet för många minoritetsspråk i Sovjetunionen, däribland burjatiska och kalmuckiska, som är nära besläktade med mongoliska – skillnaderna är ungefär lika stora som mellan svenska och danska. I många fall handlade det om språk som tidigare inte hade någon skrift, men ibland ersattes ett tidigare alfabet med det latinska. Förutom för kalmucker och burjater gäller det exempelvis för de muslimska centralasiatiska turkfolken vars språk tidigare skrevs med det arabiska alfabetet.

Runt 1937 förändrades emellertid den sovjetiska skriftpolitiken drastiskt och man övergick från latinsk till kyrillisk skrift, uppenbarligen som ett slags manifestation av nationell enighet och rysk överhöghet.

Burjater och kalmucker hade först övergått till latinsk skrift och sedan till kyrilliska vid slutet av 1930-talet. Detta sågs som ett steg mot ett modernare samhälle och kultur av många mongoliska intellektuella som ansåg att den gamla mongoliska skriften var alltför komplicerad och alltför avlägsen från det moderna språket för att kunna tjäna som ett skriftsystem för befolkningens stora flertal.

Vid början av 1930-talet gjordes ett kortvarigt försök att införa en latinskbaserad skrift för mongoliska på initiativ av den burjatiske intellektuelle Tsyben Zjamtsarano (1880–1942), se Grivelet (1997). Det fick inget genomslag, och uigur-mongoliskan förblev den allmänt använda skriften tills det kyrilliska alfabetet infördes genom ett regeringsbeslut av den 25 mars 1941. Detta var troligen grundat på sovjetiska påtryckningar, men också på en önskan från mongoliska intellektuella att utplåna den utbredda analfabetismen genom ett skriftsystem som låg närmre det talade språket.

Utformningen av den kyrilliskbaserade skriften för mongoliska gjordes till stor del av författaren och språkvetaren Tsendiin Damdins r en (1908–86), en av de mongoliska intellektuella som ansåg att den gamla skriften hade spelat ut sin roll. För att skynda på processen hämtades han och sattes utan familjens vetskap i husarrest i en sommarstuga i berget Bogd Uul söder om Ulaanbaatar och släpptes inte ut förrän han hade formulerat reglerna för hur mongoliska skulle skrivas med det kyrilliska alfabetet.

Andra ledande intellektuella som Bjambyn Rintjen (1905–77) var starka motståndare till den kyrilliska skriften, och ansåg att den inte lämpar sig för att skriva mongoliska (se t.ex. Rinčen 1958). Denna uppfattning har spritts framgångsrikt även utanför Mongoliet men är ur lingvistisk synpunkt helt ogrundad och baserad på missuppfattningar av den moderna mongoliskans fonologi och på en ovilja att se det moderna språket som ett självständigt språk, på många sätt skilt från fornmongoliskan. I själva verket är den

kyrilliska mongoliska skriften en i stort sett fonematisk skrift för den normerande dialekten halh (chalcha) i Mongoliet. Den gamla (uiguriska) skriften för mongoliska skiljer sig däremot ganska mycket från det moderna språket och har dessutom en hel del språkliga tillkortakommanden. Flera ljud som skiljs åt i det mongoliska uttalet (och i den kyrilliska skriften) skrivs med samma bokstav i den gamla skriften, t.ex. skiljs inte *t* och *d* åt och inte heller *u* och *o*. Orsaken är att dessa ljud inte skildes åt i uiguriska som skriften ursprungligen användes för. Dessutom var det ju så att den gamla skriften kom till under 1200-talet och språkförändringar som skett därefter har inte fått något avtryck i skriften. Man skall emellertid inte överdriva dessa svårigheter. Skillnaderna mellan den gamla mongoliska skriften och det moderna språket är inte större än de som finns i en del språk som använder det latinska alfabetet, som engelska eller franska. Den gamla skriften har dessutom den fördelen att den är dialektneutral.

Den kyrilliska skriften ersatte efter hand den gamla mongoliska skriften och gjordes 1946 till det enda officiella skriftsystemet. Övergången till kyrillisk skrift hjälpte säkert till att utrota analfabetismen, vilket var huvudmålet för de intellektuella som förespråkade skriftreformen, även om det kanske inte var den avgörande faktorn.

Den kyrilliska skriften sågs däremot också som en symbol för sovjetisk överhöghet. När sovjetmakten försvagades mot slutet av 1980-talet återuppstod den gamla skriften. Det första allmänt synliga tecknet på detta var en neonskylt *Monggol sigudan* 'Mongoliska posten' i den gamla skriften som 1986 sattes upp på Centralpostkontoret vid S hbaa tartorget i centrala Ulaanbaatar. Utvecklingen kulminerade i ett parlamentsbeslut från 1991 att den gamla skriften under 1994 skulle ersätta den kyrilliska för alla officiella ändamål. Den gamla skriften infördes som förstaskrift i grundskolorna under de tre läsåren 1991/92 till 1993/94, och kurser i den gamla skriften gavs i den statliga televisionen och andra medier.

Fastän försöket att återinföra den gamla skriften välkomnades av många intellektuella, som redan kunde den väl, blev det knappast någon framgång hos den stora allmänheten, som bara kände till den kyrilliska skriften. Planerna på att byta skriftsystem avbröts plötsligt genom ett parlamentsbeslut i juli 1994. Kyrilliska är nu den enda allmänt använda skriften, även om den gamla skriften fortfarande är officiell skrift jämsides med kyrilliska. Kyrilliska är helt dominerande och den gamla skriften används mest som dekoration. De olika mongoliska skriftsystemen illustreras i bilden på nästa sida.

De olika skriftsystem som har använts för att skriva mongoliska.
Som exempel visas hur räkneorden *arvan* ‘tio’ och *doloon* ‘sju’ skrivs.

Framgång och motgång

I den mongoliska skriftens historia har vi sett tre åtminstone delvis framgångsrika statliga initiativ: när den gamla (uigurisk-)mongoliska skriften infördes under 1200-talet, när ’Phags-pa-skriften infördes under 1300-talet och när den kyrilliska skriften infördes på 1940-talet. Återinförandet av den gamla skriften på 1990-talet misslyckades däremot.

’Phags-pa skriftens öde var nära relaterat till Yuán-staten. Den skapades av och för staten och slutade användas när staten upphörde. Ingen annan faktor tycks ha varit inblandad. Två framgångsrika mongoliska skriftsystem introducerades av Djingis khans nya mongoliska stat och av 1940-talets sovjetstödda mongoliska stat. Båda var kraftfulla regimer utan demokratiska hänsyn, vilket nästan övertydligt framgår av den något bisarra metoden som båda använde: att tillfångata och tvinga en ledande intellektuell att skapa ett nytt skriftspråk.

Det intressantaste fallet är nog försöket att återinföra den gamla skriften under 1990-talet, vilket misslyckades trots de rådande nationalistiska och antiryska känslorna, som symboliserades av glorifierandet av Djingis khan,

till exempel genom ett frenetiskt firande av olika jubileer med anknytning till honom (se t.ex. Grivelet 2001). Sådana firanden, eller över huvud taget positiva omnämnanden av Djingis khan var omöjliga under den sovjetdominerade tiden. I Ryssland var (och är) bilden av Djingis khan präglad av föreställningen om det ”mongoliska oket”.

Uppenbarligen underskattade man den tid och ansträngning som behövdes för att lära sig den gamla skriften. Även högmotiverade inlärare gav upp när de förstod att det inte bara handlade om att byta ut de kyrilliska bokstäverna mot de uiguriska, utan att man var tvungen att lära sig ett helt annat system med sina egna regler, mer komplicerade än de som man redan kunde. Det fanns också ekonomiska skäl, som de investeringar som skulle behövas för att kunna trycka böcker och tidningar i den gamla skriften. Ett tredje skäl kan ha varit att man bekymrade sig för att den gamla mongoliska skriften, som inte används för något annat språk än mongoliska, skulle isolera Mongoliet från resten av världen.

Till sist

Nya skriftsystem har införts i Mongoliet nästan enbart på statligt initiativ. Den uiguriska skriften infördes för att uppfylla den nya mongoliska statens krav. ’Phags-pa-skriften infördes mer som en symbol för Yuán-dynastins enhet än av något egentligt behov, eftersom det redan fanns välfungerande skriftspråk för de olika språk som ’Phags-pa-skriften användes till, kinesiska, mongoliska och tibetanska. Den kyrilliska skriften infördes efter sovjetiska påtryckningar men också för att avskaffa analfabetismen. Försöket att återinföra den gamla mongoliska skriften var en del av den nationalistiska reaktionen mot den tidigare ryska överhögheten. De tre förstnämnda lyckades, åtminstone för en tid, medan den sista misslyckades. En orsak till detta var att den mongoliska staten under 1990-talet var både svagare och mer demokratisk än vid de andra tillfällena.

Men jag tror att en annan faktor var den avgörande. När det kyrilliska alfabetet infördes på 1940-talet var de flesta mongoler analfabeter, men under 1990-talet var de allra flesta läskunniga och använde det kyrilliska alfabetet i sina dagliga liv. Erfarenheter från förändringar av andra allmänt använda skriftspråk visar att det är svårt för språkanvändarna att acceptera ens ganska små förändringar, som de nyligen genomförda tämligen marginella förändringarna av tysk stavning, som väckt starkt motstånd. Den inneboende styrkan i ett etablerat och välfungerande skriftsystem som används aktivt av en majoritet av befolkningen kan stå emot både statliga dekret och nationalistiska känslor, som det mongoliska exemplet visar.

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The Obligatory Contour Principle in Swedish

Joost van de Weijer

Introduction

Constraints on phonological word structure exist in all languages, that is, the elements of the sound system of a language (the consonants and the vowels) combine with one another in specific ways. Some elements combine frequently, others combine rarely or never. This system of language sounds and how they combine is known as the phonotactic structure of the language. As an example, one of the phonotactic rules in English is that a word can start with the combination / kl / but not with the combination / kn /. Typically, phonotactic rules are language specific. Certain combinations of speech sounds may be forbidden in one language, but allowed in the next. The combination / kn / from the previous example is a legitimate word onset in other Germanic languages such as Dutch, German or Swedish.

Phonotactic rules need not be all-pervasive, that is, some rules appear to exist, but counterexamples can also be found. The consequence is that some combinations of speech sounds are attested in a language, but with a frequency that is far less than would be expected given the frequencies of the individual phonemes (e.g. Kessler and Treiman 1997; Pierrehumbert, 1994).

One example of such a not-all-pervasive phonotactic constraint is that certain vowels tend to be combined with some consonants but not with others (Kessler and Treiman 1997). In English, for instance, / æ / is a common vowel and / l / is a common syllable offset, but there are remarkably few words that end in / æl /. Kessler and Treiman (1997) identified several of these restrictions of vowels with subsequent consonants and took this finding as supporting evidence that there is a natural division between syllable onset and syllable rime. A second example is that in English approximately 200 possible morpheme internal triconsonantal clusters (as in *embrace*) are expected given the relatively high frequencies of the individual consonants (Pierrehumbert 1994). However, only approximately 50 out of 200 are attested in a dictionary.

The focus of this paper is the existence of a phonotactic constraint in Swedish, namely the avoidance of identical consonants within a word. This characteristic, the avoidance of identical segments, is a well-known feature of language phonology. It has been observed in other contexts and in other languages as well. Within phonology this tendency has been formulated as *the obligatory contour principle* (OCP), which states that "adjacent identical segments are prohibited" (Clements & Hume 1995). Originally the OCP was used to explain the absence of adjacent identical lexical tones, but at a later stage it has also been applied to consonants.

The systematic investigation of consonant-repetition avoidance has mainly focused on Semitic languages, Arabic and Hebrew (e.g. McCarthy 1986; Berent & Shimron 2003; Frisch et al. 2004). In Hebrew, a word root consists of three consonants to which the vowels are added. In normal written Hebrew, only these consonants are represented and the vowels are omitted. The first two consonants in these roots are seldom identical and usually not homorganic (Berent & Shimron 2003). The last two consonants can be identical, but in these cases, presumably, the underlying form of the root only contains two consonants. Semitic languages present a relatively clear case because of the homogeneous structure of word roots: a skeleton consisting of three consonants. But what about other languages?

The investigation of consonant repetition in languages such as the Germanic languages is less straightforward. First of all, this is because the pattern of repetition avoidance is not as clear-cut as in Semitic languages. There are many examples of words in which a consonant occurs twice (e.g. *people*, *moment*, *dead*, *system*, etc.), or even three times (e.g., *census*). Second, syllable structure is more complex in Germanic languages. Instead of simple consonants, syllable onsets and offsets frequently consist of clusters of consonants. Co-occurrence restrictions within consonant clusters are not the same as those between consonant clusters. Identical consonants are only allowed in two different positions (syllable onset and syllable offset, as in *space*), but not within the same position. There are no uninflected forms that end in *–sts*, or *–sks*, for instance.

Nevertheless, numerous examples exist supporting the idea that combinations of similar or identical elements tend to be avoided in other languages as well, albeit to a lesser extent than in Semitic roots. Clements and Keyser (1983) and Davis (1989) pointed out that there are no monosyllabic words in English with the form sCVC, in which the two Cs are identical non-coronal consonants, or two nasal consonants. There are no such words as *spip*, *skak*, or *snang*. Another example is that of morphological haplology (Stemberger 1981): suffixes are deleted when the adjacent consonant in the stem is homophonous. In English, for example, the genitive s is not realized in plural forms that end in *–s* (cf. the **boys's books* with *the children's books*). Similar examples exist in other languages as well. In Swedish, the present tense markers *–er* or *–ar* are not realized when the verb

stem ends in –*r*, e.g. *jag kommer*, ('I come'), but *jag hör* – instead of **jag hörer* ('I hear'). Third, there are examples of historical sound changes that appear to be motivated by achieving greater dissimilarity between phonological elements (Hock & Joseph 1996). The original Swedish word for 'key' was *lyckel*, which has become *nyckel* in modern Swedish. Similarly, the Italian word *tartuffeli* became *Kartoffel* ('potato') when adopted into German.

On the other hand, there are also exceptions, notably in the category of expressive words (Fudge 1970). Repeated consonants are regularly found in (at least) three groups of words that somehow take a special status within a language. These groups are onomatopoetic words (e.g. *babble*, *giggle*, *cackle*, *mumble*, *crack, pop*); words typically used by children (e.g. *mommy*, *daddy*, *cookie*, *baby*, *nanny*, etc.); taboo (slang) words or words with a negative connotation (e.g. *twit*, *twat*, *crook*). On top of that, repeated consonants are a natural characteristic of reduplicative words such as *criss-cross*, *zigzag*, *hotchpotch, hocus-pocus*. These latter words, however, may be considered as combinations of two simplex words.

Given these observations, the investigation of consonant identity avoidance within non-Semitic languages appears worth the effort. Are words with repeated consonants indeed underrepresented in the vocabulary in other languages as well, albeit to a lesser extent than in Semitic languages, or is the number of words with repeated consonants approximately equal to the number that would be expected given the relative frequencies of the consonants in the language?

A first exploration of the issue (van de Weijer 2003) showed that, in Swedish, words with at least two repeated consonants are infrequent. The material used in that study consisted of 8887 monomorphemic words with a total token frequency of nearly 29 million. The type frequency of words with identical consonants was 1001 (11.26%), but the token count was only 1.57%. In other words, there was a considerable number of word types with repeated consonants, but since these words have low token frequency, they are not encountered very often in everyday language.

A second study (van de Weijer 2005) suggested that listeners are sensitive to the presence of identical consonants. In an auditory lexical-decision experiment, Swedish listeners were presented with nonsense words and real words. Repeated consonants occurred in one third of the real words (e.g. *tält* 'tent', *lokal* 'room'), and in one third of the nonsense words (e.g. *tift*, *lanel*). The subjects were faster in rejecting the nonsense words with repeated consonants than those without, but, on the contrary, they were slower in accepting real words with identical consonants than those without. This result suggests that the pattern of identical consonants is relatively uncommon and that this is part of the implicit knowledge of native speakers.

The present study presents evidence from Swedish. The results show that, overall, the expected numbers of words with identical consonants are higher

than the actual observed numbers. Furthermore, it is shown that the extent to which a consonant is likely to be repeated varies. Some are very resistant to repetition (e.g. / l / and / r /), others are less resistant, and remarkably, for / b / the observed frequency is higher than the expected frequency. The method of analysis is described in the following section.

Method and materials

The observed numbers of words with identical consonants were determined, and then compared with the expected numbers. The principle of the calculation of the expected frequencies was as follows. Consonants such as / h / and / ŋ / are relatively infrequent and their occurrence is predominantly limited to either word onset or word offset. Consequently, not many words with repeated / h / or / ŋ / are to be expected. Other consonants, such as / p / and / s /, are frequent and can occupy different positions within the word. It is therefore only natural to expect more words with repeated / p / or / s /. Secondly, the expected numbers of words with repeated consonants are determined by the amount of consonants that occupy different positions within the word. A monosyllabic word can only contain repeated consonants when there is at least one consonant in word-onset position, and in word-offset position. The probability that consonants become repeated increases when more consonant 'slots' (that is, before or after a vowel) in a word are filled. For monosyllabic words, there can be consonants in zero to two positions: word onset (WO) and word offset (WF). With disyllabic words, there are two additional slots, one for the coda of the first syllable (SF), and another one for the onset of the second syllable (SO). These two factors were taken into account when calculating the expected numbers of words with repeated consonants.

The material for this study consisted of a list of 5388 monosyllabic and disyllabic phonologically transcribed Swedish words. Each word in this list was categorized as to whether or not the word contained one or more consonants, and the positions (slots) that these consonants occupied. The word *brand* ('fire'), for instance, contains consonants in WO and WF position, and the word *porträtt* ('portrait') contains consonants in all four positions. There are 16 different possible combinations, but not all of them occurred. Table 1 gives an overview with example words from the material.

Table 1: Consonant slots. Shaded cells indicate which slot is filled with one or more consonants.

WO	SF	SO	WF	example	*n*
				i, å	3
■				*ko, två*	134
		■		*eko, edra*	76
	■			—	0
			■	*örn, ärr*	93
■			■	*flykt, mynt*	1824
■		■		*spöke, smida*	938
		■	■	*övrig, idrott*	141
	■	■		*yrke, öppna*	68
	■		■	—	0
■	■			—	0
■	■	■		*hustru, löfte*	530
■	■		■	—	0
■		■	■	*gratis, trubbig*	920
	■	■	■	*anspråk, artist*	122
■	■	■	■	*doktrin, marknad*	539

The probability (relative frequency) that a consonant occurred in any of the four positions was calculated as the number of words with the consonant in a certain position divided by the total number of words that contained one or several consonants in that position. For instance, there were 4885 words with one or more consonants in WO position, and 3639 words with one or more consonants in WF position. The consonant / b / (bottom row of Table 2) occurred 419 times in WO position and 29 times in WF position. The probability that / b / occurred in WO and WF position was 419 / 4885 = .08577, and 29 / 3639 = .00797, respectively. Table 2 shows absolute and relative frequencies for each of the Swedish consonants in the four different slots.

The likelihood that a consonant would occur more than once in a word was calculated as a binomial probability based on the multiplication of the relative frequencies of the consonant. For instance, the probability of finding / b / in word onset *and* word offset position in a WO WF word becomes .08577 ∗ .000797 = .00068. The outcome multiplied with the number of WO WF words yields the expected number of words with two / b /. Since there were 1824 words with this structure in the word list (see right column of Table 1), the expected number with two / b / was equal to .00068 ∗ 1824 = 1.25. The observed number of words in this category was equal to 2 (i.e. *bob* and *bomb*). In a binomial distribution with $p = .00068$ and $n = 1824$, the one-tailed probability of obtaining two hits or more is .87, which is much larger than a critical value of .05. In other words, the observed frequency in this case was not significantly larger than the expected frequency.

Table 2: Absolute and relative consonant frequencies in different slots.

	WO		*SF*		*SO*		*WF*	
d	223	0.04565	38	0.03018	290	0.08698	266	0.07310
f	336	0.06878	24	0.01906	71	0.02130	53	0.01456
g	196	0.04012	33	0.02621	147	0.04409	169	0.04644
h	245	0.05015	0	0.00000	13	0.00390	0	0.00000
j	186	0.03808	23	0.01827	153	0.04589	88	0.02418
k	539	0.11034	92	0.07307	370	0.11098	414	0.11377
l	536	0.10972	140	0.11120	378	0.11338	509	0.13987
m	348	0.07124	130	0.10326	185	0.05549	219	0.06018
n	211	0.04319	224	0.17792	260	0.07798	554	0.15224
p	398	0.08147	21	0.01668	183	0.05489	137	0.03765
r	807	0.16520	243	0.19301	342	0.10258	661	0.18164
s	865	0.17707	177	0.14059	307	0.09208	548	0.15059
t	516	0.10563	59	0.04686	518	0.15537	642	0.17642
v	320	0.06551	10	0.00794	163	0.04889	83	0.02281
ɧ	127	0.02600	0	0.00000	18	0.00540	8	0.00220
ɕ	89	0.01822	0	0.00000	3	0.00090	5	0.00137
ŋ	0	0.00000	76	0.06037	47	0.01410	194	0.05331
ʃ	2	0.00041	1	0.00079	3	0.00090	48	0.01319
ɓ	419	0.08577	4	0.00318	140	0.04199	29	0.00797
n	*4885*		*1259*		*3334*		*3639*	

A consonant can, in principle, occur as many times in a word as there are slots in the word, and sometimes it does. The probability that a consonant would occur in the first two slots of, for instance, a WO SO WF (e.g., *cider*) was calculated as the product of the relative frequencies of the consonant in these positions, times the probability that the consonant would not occur in the last position. This probability was calculated for all three combinations of two groups out of three, after which the three probabilities were added. The probability that the consonant occurred three times in the word was equal to the product of the three relative frequencies. The total probability, then, that a consonant occurred at least twice was the sum of the four probabilities:

$$p(\text{WO and SO but not WF}) +$$
$$p(\text{WO and WF but not SO}) +$$
$$p(\text{SO and WF but not WO}) +$$
$$p(\text{WO and SO and WF})$$

In the case of / b / there were four out of 1259 words with / b / in SO position which makes p(SO) for / b / equal to .00318. The probability of

finding at least two / b / in a WO SO WF word then was equal to (.08577 ∗ .00318 ∗ .99203) + (.08577 ∗ .00797 ∗ .99682) + (.00318 ∗ .00797 ∗ .91423) + (.08577 ∗ . 00318 ∗ .00797) = 0.00098. Again, this probability was multiplied by the number of words with this particular structure to find the expected number of words with identical consonants.

The probabilities for words with four groups of consonants were calculated accordingly. Thus, this probability was equal to the probability that a consonant occurred twice in the word, plus the probability that it occurred three times, plus the probability that it occurred four times.

Results and discussion

The table in the appendix shows the results. Each cell contains the expected frequency followed by the observed frequency. Cells that contain pairs where the expected frequency is significantly larger ($p < .05$) than the observed frequency are shaded. The final column shows the row totals (collapsed over all words). The bottom row shows the column totals (collapsed over all consonants). The table only shows those words with at least two consonant slots.

Across all words, the expected total is more than twice as large as the observed total (rightmost bottom cell in the table). Examining the row totals in the right column results in a rough pattern. The consonants that are least likely to be repeated within words are the alveolars, notably / l / and / r /, but also / d s t n /. From the frequencies shown in Table 2, for instance, it can be seen that / l / is a consonant that occurs regularly in word onset and word offset. Nevertheless, there were no words in the word list with / l / in word onset *and* word offset. Additionally, expected frequencies for / k /, / m / and / j / are substantially higher than observed frequencies. Then there are a few consonants for which the expected frequencies are roughly equal to the observed frequencies. These include / f g p v h ɧ ɕ ŋ /. The latter four, however, are of low overall frequency, which reduces confidence in the results. Finally, / b / shows up as an exceptional consonant in that the observed frequency of words is larger than the expected number. Examining the individual cells for / b / reveals that there are unexpectedly many WO SO WF words with two / b /. These words are: *babbel*, *bubbel*, *bourbon*, *bebis*, *bebop*, *bibel*, *kebab*, and *babord*.

In conclusion, the OCP mechanism has previously been observed in the Semitic languages, and previous informal evidence has suggested that it is also operational in other languages. The results of the present study provide support for these informal observations with data from Swedish. It was found that the frequencies of words with repeated consonants were generally, and often significantly, lower than the expected frequencies.

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Appendix

The first number in a cell indicates expected frequencies of words with two identical consonants; the second number indicates the observed. Cells for which the difference is significant have been shaded.

	WOWF	WOSO	SOWF	SFSO	SFWF	WOSF	WOSFSO	WOSFWF	WOSOWF	SFSOWF	WOSFSOWF	total
d	6.09–4	3.72–0	0.90–0	0.17–0	0.00–0	0.00–0	3.99–2	0.00–0	12.04–0	1.29–0	9.82–2	38.02–8.00
f	1.83–0	1.37–1	0.04–0	0.03–0	0.00–0	0.00–0	1.66–0	0.00–0	2.52–3	0.12–0	2.49–3	10.06–7.00
g	3.40–3	1.66–3	0.29–0	0.08–0	0.00–0	0.00–0	2.06–0	0.00–0	5.07–4	0.53–0	4.66–2	17.75–12.00
h	0.00–0	0.18–0	0.00–0	0.00–0	0.00–0	0.00–0	0.10–0	0.00–0	0.18–0	0.00–0	0.11–0	0.57–0.00
j	1.68–1	1.64–1	0.16–0	0.06–0	0.00–0	0.00–0	1.71–1	0.00–0	3.40–0	0.29–0	2.98–1	11.92–4.00
k	22.90–30	11.49–11	1.78–0	0.55–0	0.00–0	0.00–0	14.11–1	0.00–0	31.87–20	3.32–0	29.08–12	115.10–74.00
l	27.99–0	11.67–0	2.24–0	0.86–0	0.00–0	0.00–0	18.28–1	0.00–0	36.95–9	4.94–0	38.49–4	141.42–14.00
m	7.82–3	3.71–2	0.47–1	0.39–0	0.00–0	0.00–0	8.60–4	0.00–0	10.22–5	1.78–2	15.14–11	48.13–28.00
n	11.99–4	3.16–3	1.67–2	0.94–0	0.00–0	0.00–0	12.58–2	0.00–0	19.13–11	5.93–3	33.39–16	88.79–41.00
p	5.59–7	4.19–6	0.29–0	0.06–0	0.00–0	0.00–0	3.50–2	0.00–0	8.53–4	0.43–0	6.39–3	28.98–22.00
r	54.73–4	15.90–1	2.63–1	1.35–0	0.00–0	0.00–0	32.91–2	0.00–0	54.68–30	8.09–2	66.10–30	236.39–70.00
s	48.64–36	15.29–4	1.96–2	0.88–0	0.00–0	0.00–0	26.27–9	0.00–0	47.77–17	5.38–2	51.74–38	197.93–108.00
t	33.99–40	15.39–10	3.86–0	0.50–0	0.00–0	0.00–0	14.37–7	0.00–0	52.13–21	4.93–8	38.66–27	163.83–113.00
v	2.73–5	3.00–5	0.16–0	0.03–0	0.00–0	0.00–0	2.15–1	0.00–0	5.21–2	0.20–0	3.59–3	17.07–16.00
ɧ	0.10–0	0.13–0	0.00–0	0.00–0	0.00–0	0.00–0	0.07–0	0.00–0	0.19–0	0.00–0	0.11–0	0.60–0.00
ɕ	0.05–0	0.02–0	0.00–0	0.00–0	0.00–0	0.00–0	0.01–0	0.00–0	0.04–0	0.00–0	0.02–0	0.14–0.00
ŋ	0.00–0	0.00–0	0.11–0	0.06–0	0.00–0	0.00–0	0.45–0	0.00–0	0.69–0	0.58–0	2.55–2	4.44–2.00
ʃ	0.01–0	0.00–0	0.00–0	0.00–0	0.00–0	0.00–0	0.00–0	0.00–0	0.02–0	0.00–0	0.02–1	0.05–1.00
b	1.25–2	3.38–3	0.05–0	0.01–0	0.00–0	0.00–0	2.11–2	0.00–0	4.20–8	0.06–0	2.68–0	13.74–15.00
	230.79–139	95.91–50	16.60–6	5.95–0	0.00–0	0.00–0	144.92–34	0.00–0	294.83–134	37.86–17	308.01–155	1134.87–535

Svenska med en touch av Aussie

Elisabeth Zetterholm

Inledning

Formell inlärning av ett nytt språk kan ske i den miljö där språket är majoritetsspråk och talas i det omgivande samhället, vilket då betecknas som andraspråksinlärning (L2). Om språket däremot företrädesvis lärs ut och används enbart i klassrummet brukar det kallas för främmandespråkinlärning (FL). Håkansson & Norrby (2010) menar att intresset för jämförande studier med fokus på inlärningsmiljön har varit ganska lågt. Flera forskare har heller inte gjort någon tydlig distinktion mellan L2 och FL, utan företrädesvis använt begreppet L2. Norrby & Håkansson (2007) har också sammanfört dessa båda perspektiv i sin studie över vuxna inlärare av svenska i Sverige och i Australien och fokuserar på omgivningens roll för språkinlärningen. Resultaten visar att inlärningsordningen i den grammatiska utvecklingen är lika oavsett var man lär in sitt språk. Däremot påverkar miljön den lexikala utvecklingen och ordförrådet är inte lika aktivt hos inlärarna i utlandet, dvs. i en FL-miljö. Det finns också en skillnad mellan de båda inlärargrupperna i ordassociationstest, där L2-inlärarna ligger närmare talarna i den svenska kontrollgruppen jämfört med FL-inlärarna. Den pragmatiska utvecklingen tycks också vara mera gynnsam när man lär sig svenska i Sverige. Collentine (2004) gjorde en jämförelse mellan studenter som lärde sig spanska i Spanien respektive i klassrummet i USA. Han fann inga anmärkningsvärda skillnader i deras grammatiska kunskaper, men att de som lärt sig språket i en L2-miljö hade lättare för att uttrycka sig på målspråket och föra ett samtal. I föreliggande studier görs jämförelser mellan några vuxna inlärare av svenska med fokus på uttalet, såväl de olika svenska fonemen som prosodiska kontraster. Studenterna läser svenska vid University of Melbourne respektive Lunds universitet.

Bakgrund

Bland andraspråksforskare, särskilt med fokus på uttal och fonologi, diskuteras ofta huruvida man kan tillägna sig ett mer eller mindre brytningsfritt uttal vid inlärning av ett nytt språk (e.g. Abrahamsson & Hyltenstam

2004; Ioup 2008; Markham 1997; McAllister 2000; Munro 2008; Pourhossein Gilakjani & Resa Ahmadi 2011). Några av dessa menar att det finns en kritisk ålder, baserad på sociala och kognitiva faktorer, för att låta som en infödd talare, medan andra ifrågasätter detta och menar att även vuxna inlärare kan anses få ett brytningsfritt uttal. Inlärarens modersmål och transfer från modersmålet kan också ha inverkan på uttalet av det nya språket. Bannert (2004) gjorde under 1980-talet en stor studie som visar vilka generella och mera specifika svårigheter det kan finnas när man lär sig svenska som andraspråk. Utifrån inspelningar i ett s.k. brytningsarkiv med olika modersmålstalare har Bannert kartlagt svårigheter som kan härledas till talarens modersmål.

Det finns inte alltid ett klart samband med bokstäver och uttal av språkljud. Uttalet hos vuxna inlärare påverkas ofta av hur orden stavas. Bannert fann i sin studie ett antal uttalsfel som han kopplade till stavningen och relationen mellan bokstav och språkljud i talarens primärspråk, exempelvis uttalet av de svenska vokalerna /u/ och /a/ som ofta uttalades som [a] respektive [æ] av hans informanter med engelska som modersmål. I den svenska ortografin markeras inte de prosodiska företeelserna ordbetoning och ordaccent, varför detta kan ställa till problem för inlärare oavsett modersmål. Vokallängden kan oftast utläsas av enkel- eller dubbelteckning av efterföljande konsonant.

Svenska med engelsk brytning

I de studier som Bannert beskriver förekommer samma svårigheter oberoende om man har amerikansk eller brittisk engelska som modersmål. Tyvärr hade Bannert inte några talare av australiensisk engelska. Enligt Cox (2012) är det dock inte någon anmärkningsvärd skillnad mellan varianter i den australiensiska engelskan jämfört med brittisk och amerikansk engelska, framför allt inte vad gäller konsonanter. Standard Australian English talas av de flesta i Australien och anses vara förhållandevis homogen över hela kontinenten (Cox 2012). Det finns några regionala och sociala varianter, som ännu inte dokumenterats samt Australian Aboriginal English som i första hand talas av aboriginer samt etnokulturella varianter för att uttrycka olika etniska identiteter (Cox 2012). I föreliggande studie görs inte någon särskild bedömning utifrån den engelska varieteten då alla informanter talar Standard Australian English. Det Bannert tar upp i sin studie är gemensamma uttalsfel hos informanter med samma modersmål, dvs. det han benämner som ”typisk brytning”. När det gäller vokaler är det framför allt reduktion vid uttalet som gör att klangfärgen förändras mot ”vokalmummel”. Exempel på detta är uttalet av ordet *flickorna* [flɪkərnə]. Ett annat uttalsfel är att vokalen helt faller bort, till exempel *fågel* blir [foːgl]. Liksom många andra andraspråksinlärare av svenska har dessa talare också problem med de främre

rundade vokalerna: y- och u-vokalen. Engelskan har kvar aspiration på tonlös klusil efter betonad vokal, vilket inte är fallet i svenskan. Därför menar Bannert att inlärare med engelska som modersmål ofta har mera aspiration i den positionen, vilket en jämförelse mellan engelska *letter* [lɛtʰɐ], och svenska *lätta* [lɛta] (a.a. 2004:41) visar. Det uttalas då mera likt den svenska retroflexen (rt som i *bort*) [ʈ] som används i de flesta svenska dialekter förutom skånska. Tonande s-ljud mellan tonande fonem är också vanligt hos dessa inlärare. Lateralen /l/ blir ofta velariserad och uppfattas då ofta som något ”tjockare” än ett svenskt l-ljud. I ett prosodiskt perspektiv har inlärare med såväl amerikansk som brittisk engelska ofta problem med distinktionen mellan lång och kort vokal i svenska samt betoningens placering i såväl enskilda ord som fraser och satser.

Att läsa svenska som främmande språk i Melbourne

Vid ett flertal universitet i världen är det möjligt att läsa svenska som främmande språk. Ett av dessa var till helt nyligen University of Melbourne där man kunnat läsa svenska fram till hösten 2012. Det går fortfarande att läsa svenska på Svenska skolan i Melbourne, men där har eleverna ofta en annan anknytning till Sverige: ca 2/3 av eleverna har minst en svenskfödd förälder och den sista tredjedelen utgörs av elever som varit utbytesstudenter i Sverige under en termin eller ett år och då påbörjat svenskinlärningen där. De eleverna är mellan 16 och18 år gamla. Studenterna på universitet är några år äldre.

På Svenska skolan har man undervisning från kindergarten, det vill säga när barnen är fyra år, upp till år 12, vilket motsvarar studentexamen. På universitetet i Melbourne kan man läsa svenska i tre år.[36] År ett och två träffas man fyra timmar i veckan, fördelat på två tillfällen, medan man i år tre endast träffas tre timmar vid ett tillfälle i veckan. Läraren vid universitetet är svenska och behörig gymnasielärare med flera års erfarenhet av undervisning i svenska som främmande språk utomlands. Det händer att lärare och studenter träffas vid olika evenemang med svensk anknytning, till exempel när Svenska kyrkan har midsommarfirande eller julbasar. Studenterna har främst valt att börja läsa svenska på grund av sitt intresse för svensk kultur, till exempel design, film, samekulturen, och de drömmer om att kunna åka till Sverige och studera.

I Melbourne försöker man träna det svenska uttalet mycket genom bland annat läsning både enskilt och i kör, man lyssnar på och pratar med varandra där läraren korrigerar uttalet när så behövs. Läraren har svenska som modersmål. Man använder också internet som en källa för att lyssna på

[36] Beskrivningen av svenskämnet vid universitetet i det följande utgår från situationen fram tills dess att ämnet lades ner 2012.

svenska. Förutom att träna på uttalet av vokaler och konsonanter tar man i undervisningen också fram den svenska prosodin med vokalkvantitet och betoningsmönster. Utanför klassrummet är Svenska kyrkan i Melbourne en central och viktig mötesplats för invånare med skandinavisk anknytning, och här ges också tillfälle för studenterna att träffas och öva sin svenska i många olika sammanhang.

Att läsa svenska som främmande språk i Lund

Kurser i svenska som främmande språk ges vid de flesta svenska universitet för utländska studenter och lärare. Kurserna ges i Sverige och borde kanske därför betecknas som L2-inlärning utifrån den rådande terminologin, men universiteten har ändå valt att kalla dessa för kurser i svenska som främmande språk.

Vid Språk- och Litteraturcentrum på Lunds universitet har man möjlighet att läsa svenska som främmande språk på flera olika nivåer (1–8) om vardera 7,5 hp och därutöver finns ytterligare kurser för olika målgrupper som inte har svenska som modersmål. På introduktionskursen, 3 hp, brukar det vara ca 1000 studenter med varierande modersmål, men betydligt färre på de högre nivåerna. Under hösten 2012 var drygt 100 studenter registrerade på nivå 2 och ca 30 personer på kurser som motsvarar nivå 8, som leder fram till det s.k. Tisus-testet, vilket är ett behörighetsgivande test i svenska för universitets- och högskolestudier.

Vid samtal med lärare i Lund menar de att man för närvarande inte har något gemensamt särskilt fokus på uttalet i kurserna, utan det integreras i undervisningen när man tar upp olika teman. Det är lite upp till varje lärare hur mycket man fokuserar på uttalet och man anser att varken grammatik eller uttal kan komma före innehållet i orden. Någon av lärarna menar att man under några veckor går igenom olika vokaler och då samlar på ord som innehåller dessa vokaler. De prosodiska dragen med betoningsmönster och vokalkvantitet, liksom assimilationer och reduktioner tar man upp redan på den första nivån. Lektionerna är ganska talspråkliga, och sedan får studenten själv i högre grad arbeta med skriften och grammatikövningar.

Syftet med studien

Håkansson & Norrby (2010) studerade den grammatiska utvecklingen hos inlärare av svenska i två olika språkliga miljöer, som FL- och L2- inlärare. I den studie som presenteras här är informanterna också FL- och L2-inlärare av svenska och har australiensisk engelska som modersmål. Den ena gruppen läser svenska i Melbourne, den andra i Lund. Fokus ligger framför allt på informanternas svenska uttal både vid läst och spontant tal, inte den grammatiska utvecklingen. Beroende på inlärningsmiljön kan det finns

skillnader i uttalet av såväl de svenska fonemen som prosodin. I Melbourne pratar studenterna i stort sett bara svenska vid undervisningstillfällena. I Sverige omges de av det svenska språket, men några av studenterna går kurser där undervisningen bedrivs på engelska. Det är också troligt att de använder engelska mycket i samvaro med andra studenter eller ute i samhället eftersom det ofta finns en attityd hos svenskar att de vill praktisera sina egna kunskaper i engelska så snart tillfälle ges. Hur mycket man använder det svenska språket i samtal, även utanför själva undervisningen, spelar en viktig roll vad gäller såväl perceptionen som produktionen, men också för den sociala interaktionen och kommunikationsmönster (Lindberg 2004). Frågeställningarna i denna studie är: Märks någon större skillnad på uttalet hos de båda studentgrupperna? Ligger skillnaderna framför allt på individnivå, oavsett var de studerar svenska?

Material och metod

Fem studenter som läser svenska för tredje och sista året vid University of Melbourne har spelats in på plats i Melbourne. Fyra informanter från Australien som läser svenska som främmande språk vid Språk- och Litteraturcentrum i Lund har spelats in i Lund. Två av dessa läser på nivå 2, de två andra (Frank och Georg, se presentation av informanter nedan) läser på nivå 8 (Tisus). Antalet informanter är begränsat eftersom det endast är sju studenter i gruppen i Melbourne och bara fyra utbytesstudenter från Australien som läser svenska i Lund innevarande termin. Informanterna har läst in ca 60 meningar och en kort text som innehåller svenska fonem som anses svåra att lära in när man lär sig svenska som andraspråk, samt ett flertal prosodiska minimala par, där vokalkvantitet, ordbetoning och ordaccenter är betydelseskiljande. Texterna hade de inte sett i förväg, men de fick gärna läsa igenom texterna tyst innan de läste högt och spelades in. Alla informanterna läste dock i stort sett helt oförberedda. För att även få möjlighet att lyssna på deras spontantal fick de beskriva ett tjugotal bilder som föreställer bland annat djur, frukter och händelser. Under tiden de tittade på och beskrev bilderna blev det tillfälle till spontana samtal mellan mig och informanten, vilket också spelades in och används i analysen.

Alla informanter är mellan 21 och 32 år gamla. I Melbourne deltog fyra kvinnor och en man i studien, i Lund var det en kvinna och tre män. Alla som spelades in i Melbourne är födda i Australien, i eller i närheten av Melbourne, och har läst svenska som främmandespråk för samma lärare på Melbourne University. Ett par av studenterna har släktingar som är svenska, men bara en av kvinnorna har varit i Sverige under några månader. Tre av informanterna i Lund är utbytesstudenter, den fjärde är bosatt i Sverige sedan något år tillbaka.

Presentation av informanterna

Jag har avidentifierat mina informanter genom att ge dem nya namn. Nedan följer en kort presentation av studenterna, med de fem studenterna vid University of Melbourne först

Amy är född och uppvuxen i Melbourne. Hon har aldrig varit i Sverige, men ska snart åka dit och studera vid ett svenskt universitet under en termin.

Bruce är född strax utanför Melbourne och bor numera inne i staden. Han har aldrig varit i Sverige och har inte heller några svenska släktingar.

Cathy är född och uppvuxen i Melbourne. Hon har inte läst lika mycket som de andra då hon missat någon termin tidigare. Hon har aldrig varit i Sverige, men släktingar på hennes fars sida kom till Australien för några generationer sedan.

Deb är född i Sverige, men flyttade till Australien när hon var 9 månader gammal. Hennes far är svensk och hennes mor är från Australien. Modern lärde sig lite svenska under de två år hon bodde i Sverige, men använder inte språket numera. Deb talar numera inte svenska med sin far.

Elaine är född och uppvuxen utanför Melbourne. Hon har varit utbytesstudent i Sverige under fem månader.

Frank är född och uppvuxen i södra delen av Australien. Han har varit utbytesstudent i Lund under två terminer och återvänder snart till Australien.

Georg är född och uppvuxen i Queensland i Australien. Han har en svensk fru och är bosatt i södra Sverige sedan drygt ett år tillbaka.

Hollie är från Sydney, Australien. Hon har varit utbytesstudent under en termin i Lund och planerar nu att resa tillbaka hem.

John bor i de västra delarna Australien. Han är född i ett skandinaviskt land men flyttade redan när han var några år gammal till Nya Zeeland och vidare till Australien. Han har varit utbytesstudent i Lund under en termin och återvänder nu hem.

Det är uppenbart att några av informanterna, speciellt de som nu läser och bor i Lund har någon personlig anknytning till Sverige och därför en speciell anledning att läsa svenska.

Resultat

Det övergripande intrycket är att informanterna befinner sig på väldigt olika nivåer i uttalet och i sin behärskning av det svenska språket, oavsett om de läser svenska i Melbourne eller i Lund. Ett annat gemensamt drag är att man hör en ”typisk” engelsk brytning hos alla talarna, dock mer eller mindre påtaglig. Exempel på detta är vokalreduktioner i obetonade stavelser, problem med de främre rundade vokalerna samt tonande s-ljud.

I min redovisning av resultaten tar jag fram gemensamma uttalsavvikelser (jämfört med standardsvenska) som förekommer hos de flesta av infor-

manterna som ingick i studien. Jag kommer inte att redovisa hur de enskilda personerna talar, förutom när jag ger några konkreta exempel och sätter det i relation till bland annat deras vistelsetid i Sverige. Jag kommenterar inte alls de grammatiska avvikelser som förekommer.

Några uttalsdrag hos inlärare i Melbourne

Spontantal

Vokalreduktioner, framför allt i obetonad stavelse, är vanligt förekommande i informanternas tal. Exempel på det är ord som *båtar* [boːʈəɾ], *fågel* [foːgl]. De rundade vokalerna uttalas ofta mera orundat än i standardsvenska, t.ex. *stor* [stɔːɾ] och flera av talarna har problem med vokallängd, t.ex. *sol* [sɔl]. Den något ovanliga främre rundade y-vokalen uttalas av flera informanter som dess orundade motsvarighet /i/ i ord som *system* och *mycket*. De svenska å- och ä-vokalerna förändras till en bakre a-vokal, t.ex. *gräset* [grɑːsət], *blå* [blɑː] av informanterna vid samtliga förekomster. Alla informanter använder också ett ”tjockare” t-ljud i alla positioner där /t/ förekommer, vilket mer liknar uttalet av retroflexen [ʈ]. Några har problem med det svenska ng-ljudet och uttalar ord som *pengar* med både ng- och g-ljud. De svenska sje-ljuden klarar alla informanter bra. Många av de här fynden stämmer väl överens med det Bannert (2004) beskriver som en typisk brytning på svenska när man har engelska som modersmål.

Läst text

I meningarna och texten finns ett antal prosodiska fallgropar med minimala par beroende på betoning och vokalkvantitet. Samtliga informanter har problem med de flesta av dessa minimala par där *granen/grannen* uttalas på samma sätt [gɾanən] och betoningen ligger på samma stavelse i *kalas/kallas* [ˈkalas]. Många sammansatta ord betonas fel. Här ges några exempel där den (fel)betonade vokalen markeras med versal: *påmInner, fördEl*, *fÖrdelar* (fördela uppgifter), *demokrAti*, *avlYssna*, *telefonnUmmer*. När /s/ förekommer mellan andra tonande segment, som i ordet *presenter*, uttalas det som ett tonande s-ljud [z]. Ord som *kyrka* uttalas med en affrikata i början av flera talare [ʧyrka], men här blir y-vokalen korrekt. I meningen *Gräset var mjukt och kittlade henne mellan tårna* uttalas ordet *kittlade* med ett k-ljud istället för tje-ljud. Det är möjligt att ordet inte är bekant för informanterna.

Några uttalsdrag hos inlärare i Lund

Spontantal

Den svenska långa a-vokalen får ibland ett mera ä-liknande uttal i ord som *svag* [svɛːg] och *fraser* [fɾɛːsəɾ] och det är vanligt att den långa a-vokalen byts mot kvaliteten hos den korta a-vokalen så att ord som *samma sak*

[samasaːk], *bakgrund* [baːkgɾənd] och *mat* [maːt] får samma vokalljud. Vokalreduktioner förekommer i obetonade stavelser som till exempel i *segel* [seːgl]. Uttalet med ett något ”tjockare” t-ljud är tydligt hos alla informanter, *datorn* [dɑːʈɔrn]. Sje-ljud i ord som *stjärnor*, *skidor* och *körsbär* tycks inte vålla några större problem.

Läst text

Det händer att vokalerna får fel duration i ord som *duk* [dɵk] som uttalas med kort vokal och *turister* [tʉːrɪstər] uttalas med långt u-ljud. Vokalreduktion i obetonade slutstavelser är vanligt och den svenska o-vokalen blir mera öppen i ord som *skogen* och *stationen*. De fyra informanterna i Lund använder ett tonande s-ljud mellan vokaler, inte bara i ordet *presenter* (som hos talarna i Melbourne, se ovan) utan även i ord som *rosor* och *fraser*. Endast ett par av informanterna har problem med det svenska ng-ljudet så uttalet av *många* blir [mɔŋga]. Ordet *orgel* uttalas av några med ett g-ljud istället för j-ljud. Det är möjligt att ordet är obekant och att man därför läser som det stavas. Tje-ljudet i *kör* uttalas med en affrikata i början, [ʧœːr]. Liksom inlärarna i Melbourne har dessa informanter problem med de prosodiska minimala paren i texten så att till exempel *vägen/väggen* uttalas på samma sätt med kort ä-vokal. Den främre rundade y-vokalen byts ut mot en i-vokal i *mycket*, *fyra* och *flygplan* och ibland blir det mera som en u-vokal, *flyga* [flʉːga]. Flera ord i texten får fel betoning, *salUhall*, *ledIga*, *fAbrik*, *tOmater*, *fÖrteckning*.

Samtal på svenska

Förutom de texter som informanterna läste och de bilder som de beskrev ville jag ha ett kort personligt spontant samtal med var och en i syfte att höra hur deras svenska språk med fokus på uttalet fungerade i en sådan situation. Innehållet i de här samtalen varierade beroende på vad de själva ville berätta för mig. Här blev det en tydlig skillnad där samtliga informanter i Lund kunde föra en dialog helt på svenska, men med en engelsk brytning. Två av studenterna i Melbourne, Amy som nu reser till Sverige för att studera och Elaine som varit i Sverige nästan ett halvår, klarade också dialogen med mig bra. För de övriga var det lite svårare att använda enbart svenska. De gjorde omskrivningar när de inte kunde uttala orden och då jag uppfattade att de själva tyckte det blev för besvärligt övergick de till att tala engelska med mig. Här måste dock betonas att det var stor variation mellan informanterna.

Denna iakttagelse stämmer väl överens med studien av Collentine (2004). De som vistats i Sverige en längre tid har lättare för att uttrycka sig på svenska i en dialog och behärskar uttalet och prosodin så att en svensk lyssnare förstår. Med största sannolikhet beror det på att de har haft större möjligheter att använda språket och att de vistats i en miljö där de hört

svenska talas betydligt oftare än de som läst svenska i Melbourne. När det gäller Amy skulle det kunna vara hennes motivation och längtan efter att få börja studera i Sverige som gör att hon klarar konversationen så bra. Det är dock inte alla informanter i Lund som behärskar det svenska språket lika bra och en anledning till det kan vara att deras universitetskurser är på engelska samt att de inte behöver använda svenska språket för att leva i Lund. De flesta där har goda kunskaper i engelska och många vill använda sina kunskaper när de får möjlighet till det.

Avslutande reflektioner

När man samtalar på sitt andraspråk kan man välja en strategi att företrädesvis använda de ord som är enkla att uttala, dvs man kan kringgå svårare ord med hjälp av en omskrivning. Det var tydligt att några gjorde det i det spontana samtal jag hade med var och en. När de fick i uppgift att beskriva några bilder var det ibland svårare att använda sig av den strategin då det alltid fanns ett motiv och ett målord, där uttalet av olika fonem eller prosodiska egenheter stod i fokus. Det resulterade i mycket kodväxling och/eller kortfattade beskrivningar av bilderna samt viss tveksamhet. Kodväxlingen var naturligtvis också en hjälp när orden saknades i deras svenska ordförråd och de upprepade alltid mitt uttal när jag sa det svenska ordet, med olika resultat. Då det inte handlade om att förvandla det här momentet till glosförhör på svenska blev det istället ett sätt att prata om motivet på bilderna. I de här samtalen blev det tydligt att de som varit i Sverige hade lättare att uttrycka sig på svenska. Detta visar att det kan ha betydelse att vistas i en miljö där språket talas och man får möjlighet att interagera och träna sitt uttal med modersmålstalare. Undantaget var Amy där biljetten till ett svenskt universitet förmodligen var den största drivkraften.

När man läser en text som innehåller ord man inte förstår är det vanligt att det finns ett samband mellan uttalet och stavningen. I svenskan framgår inte de prosodiska dragen och fonem som uttalas olika beroende på kontexten kan vara svåra att uttala på rätt sätt. Flera av de sammansatta orden får fel betoning, vilket kan bero på att man inte känner till de betoningsregler som finns för sammansatta ord på svenskan eller att man inte är bekant med ordet. En intressant iakttagelse här är att även de studenter som har ett bra uttal och kan föra en dialog på svenska ofta får problem med de prosodiska minimala paren, framför allt när det gäller betoningen.

Resultaten i analyserna av de här inspelningarna stämmer överens med det som Bannert (2004) beskrivit som ”typisk brytning” när man har engelska som modersmål, vilket också innebär att fynden i analyserna motsvarar de förväntningar man kan ha på såväl FL- som L2-inlärare, oavsett inlärningsmiljö. Om svenska modersmålstalare fått göra en bedömning av inspelningarna är det mycket troligt att alla svarat att talarna

har engelska som modersmål då flera av de typiska brytningsdragen, såväl reduktion av vokaler som de främre rundade vokalerna och de något tjockare t-ljuden, finns representerade bland de här talarna. Det är dock inte säkert att lyssnare kunnat avgöra talarnas engelska varietet, men vissa uttalsfel tycks ju, enligt Bannert, vara gemensamma oberoende av engelsk varietet.

Ett särskilt tack

Tack till mina informanter i Melbourne och i Lund samt till Anna Berghamre, University of Melbourne.

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[37] Lars-Åke Henningsson was in the process of writing an article for the festschrift but sadly passed away before he was able to finish it.

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