

REPORT ON WORKSHOP ON FOREIGN ACCENTS IN BILINGUALISM: INFLUENCE, (IN)COMPLETE ACQUISITION AND LOSS

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1. Description

The workshop brought together young and established researchers in the acquisition of phonology in Northern Europe.

The focus of research on accents had until recently been second language (L2) acquisition. One question of major interest has been which role must be attributed to the age at first exposure to the L2 with respect to the attainment of a 'native' accent, and there seemed to be general consensus that the earlier one is exposed to a second language, the less likely one is to have a foreign accent. Studies on bilingual first language acquisition showed that bilingual children may differ from monolingual children in the acquisition of phonetics and phonology, although having been exposed to two languages since birth and despite having two separate language systems. Specifically, they may acquire certain properties earlier or later than monolingual children at comparable ages. This implies that even exposure from birth may not guarantee a native accent.

One (so far understudied) question arising from these findings, and which was discussed in the workshop, is whether such quantitative differences result in differences in *ultimate attainment*, i.e. their phonetic or phonological system at the end state of acquisition. A related question, which was also discussed in the workshop, is whether this applies to both of the languages of a bilingual speaker or only to the weaker (heritage) language, but not to the one that corresponds to the dominant language of the larger national society.

The major purpose of this workshop was to bring together researchers on accent who have worked on different populations (child vs. adult simultaneous bilinguals, child vs. adult second language learners), and compare developmental data with end state data. A side-effect of the workshop was that it contributed to creating a network of researchers with common interests in cities which are geographically relatively close

2. Participants and future collaborations

The presenting participants came from four different universities (Lund, Aarhus, Stockholm and Hamburg). Researchers in Lund were invited to present or attend without presenting. (There were between 15 and 25 participants, varying from one talk to another). The presenters included established scholars in the field as well as PhD and master students from the aforementioned universities. Since many people in Lund have signaled interest in the workshop, the program has been extended (compared to the original proposal) and additional funding has been granted by the Language Research Center in Lund. As a result of the workshop, connections between scholars working on accent-related properties in Lund as well as between the universities have been intensified. Future collaborations with Aarhus and Stockholm have been planned and are already ongoing between Lund and Hamburg.

III. Program

F r i d a y November 2, 2012

- 14:00 Welcome
- 14:15-14:55 Memet Aktürk-Drake (Centre for Research on Bilingualism, Stockholm University)
Probing for context-induced vs. contact-induced change in heritage Turkish phonology. Where to look?
- 14:55-15:35 Marina Zielke/Tanja Kupisch (Hamburg/Lund)
Foreign looks = foreign sounds: Visual factors in the perception of foreign accent in German-Turkish heritage speakers
Coffee break
- 16:00-16:40 Frida Splendido (Lund University)
The initial development of Voice Onset Time in early L2 French
- 16:40-17:20 Tatjana Lein (University of Hamburg)
Foreign Accent in the second native language: On first language attrition in adult German-French speakers
Coffee break
- 17:40-18:40 **Plenary talk: Conxita Lleó (Universität Hamburg)**
Deconstructing non-nativelike accent
- 20:00 Dinner

S a t u r d a y, November 3, 2012

- 9:30-10:10 Elisabeth Zetterholm (University of Växjö)
Multilingual children's pronunciation when learning Swedish as a second language
- 10:10-10:50 Camilla Søballe Horslund (Aarhus University)
Second Language Acquisition across and within Levels of Language
B r e a k
- 11:20-12:20 **Plenary talk : Ocke-Schwen Bohn (Aarhus University)**
On the perceptual bases of foreign accented speech: Universal preferences and language-specific biases in nonnative vowel perception
L u n c h
- 13:20-14:00 Mechtild Tronnier, Elisabeth Zetterholm (Lund University/Linnæus University, Växjö, Sweden)
Tendencies of Swedish Word Accent Production by L2 Learners with Tonal and Non-Tonal L1
- 14:00-14:40 Jocelyn Hardmann (Aarhus University)
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Abstracts

Probing for context-induced vs. contact-induced change in heritage Turkish phonology. Where to look?

Memet Aktürk-Drake (Centre for Research on Bilingualism, Stockholm University)

When non-standard or novel patterns are found in the weaker language of heritage bilinguals, it is not always easy to tease out which of these patterns are due to the particular socio- and psycholinguistic context of acquisition and use, and which are due to structural influence from

the dominant language. In this talk, I will regard this problem from the perspective of language variation and change, and will consequently refer to the first mechanism as context-induced change and to the second as contact-induced change. More specifically, I will be looking at the Turkish phonology and morpho-phonology of second-generation Turks in Sweden.

The participants of the project were 29 simultaneous or early bilinguals in Sweden between the ages of 19 and 43. There was also a control group in Turkey whose members were matched with the Sweden group regarding number, age, gender, educational background as well as their parents' origin and educational background. The data were collected through questionnaires and interviews on the participants' background, language use and minority orientation, and include samples of free speech as well as recordings of text recitation and an oral fill-in-the-blanks test. The data collection was carried out between 2008 and 2011 but the transcription, coding and analysis of the whole material have not been completed yet. In this talk I will present results from my ongoing PhD dissertation as well as preliminary impressions on data that I am hoping to work on after my PhD.

In probing for language change in a bilingual environment, perhaps the most crucial strategic decision a researcher has to make is to decide where to look for change. The main strategy used in this project was to focus on several phonological and morpho-phonological structures and patterns in Turkish that either have limited distribution or low frequency, or alternatively involve some type of exception or irregularity compared to a dominant rule or pattern. Some additional and probably contact-induced phenomena such as changes in vowel quality and prosody were also noticed in recordings with some participants although there was no explicit intention to look for these at the onset of the project. One of the big questions looming in the background is if we can already speak of a Swedish variety of Turkish and if so which factors determine which variety of Turkish a speaker who has mainly grown up in Sweden will acquire, develop and identify with.

Accentedness and intelligibility: Mandarin-accented English for Korean and American listeners

Jocelyn Hardmann (Aarhus)

English is used as a lingua franca throughout Asia, but with a wide degree of variation in production and perception. Since accentedness does not necessarily correlate with intelligibility (Munro & Derwing, 1995), segmental productions of Mandarin L1 and American English L1 speakers reading 60 English sentences from the Bamford-Kowal-Bench Standard Sentence Lists (Revised in American English) were measured and compared, revealing the most significant differences. Then, in a psycholinguistic word-recognition-in-noise experiment, these sentences were mixed with white noise at a +5 dB signal-to-noise ratio and presented as stimuli to American and Korean listeners, who transcribed the sentences they heard. Intelligibility was determined by comparing the three to four key words in each stimulus sentence to the listeners' written transcriptions. Since all listeners were graduate students in the U.S. who were certified to teach at the university level, and the key words were highly familiar to native speakers of English, those words which matched exactly were scored as accurate, while those which did not were marked as inaccurate. In addition, the listeners rated their familiarity with known key words on an increasing 5-point Likert scale, while unknown words were entered as '0.'

A series of mixed effects models with logistic regression analyzed the effect of speaker segmental production accuracy and listener word familiarity on intelligibility. Individual speaker and listener variation, as well as key word variation, were crossed as

random effects. For the Koreans, Mandarin-accented English was significantly less intelligible than for the Americans and the differences in the segments that most frequently caused problems for each L1 listener group lend evidence to the strong role played by perceptual foreign accent (McAllister, 1997) in English as a Lingua Franca (ELF) contexts. Word familiarity was also found to be a significant predictor of intelligibility, but speaker segmental production accuracy was not. Improving intelligibility for Chinese and Korean interlocutors in ELF contexts should therefore include a combination of phonetic training in listening and vocabulary building.

Foreign accent and VOT in adult simultaneous bilinguals (German-French)

Tatjana Lein (University of Hamburg)

This study investigates the voice onset times (VOTs) of /p, t, k/ in adult simultaneous bilingual speakers of German and French and the potential influences of phonetic categories from the dominant language of their childhood and adolescence on the heritage language due to language attrition. Secondly I will take a look at the relation between global foreign accent and VOT productions to find out whether target deviant VOTs determine the perception of global foreign accent in these speakers.

VOT refers to the time interval between ‘the release of the stop’ and ‘the onset of glottal vibration, that is, voicing’ (Lisker and Abramson, 1964: 389). French /p, t, k/ fall in the category of *short voicing lag* (voiceless unaspirated stops), whereas in German (like English) those stops fall in the category of *long voicing lag* (voiceless and aspirated).

In their study on the VOT productions of voiceless stops of French-English adult simultaneous bilinguals Fowler, Sramko, Ostry, Rowland & Hallé (2008) found that the VOTs in French were significantly longer than those of monolingual French speakers and the VOTs in English were shorter than those of monolingual English speakers due to assimilation (Flege 1995). Studies on L2-acquisition (e.g. Flege 1984, Flege & Eefting 1987) and L1-attrition (e.g. Major 1987) suggest a correlation between foreign accent and target-deviant VOT productions. In order to investigate these deviations and the relation of VOT and perceived foreign accent, VOT of word initial /p, t, k/ in the spontaneous production data of both languages of 10 simultaneous bilingual German-French adults who were rated on global foreign accent in a study by Kupisch, Barton, Hailer, Kostogryz, Lein & Stangen (in prep.) were analyzed.

As a result, seven speakers showed cross-linguistic phonetic influence in VOT-productions in both of their languages, two speakers only in one of their languages and one speaker showed no cross-language effect at all. As predicted the influence was stronger in the heritage language than in the dominant language. Most of the speakers showed assimilation (longer values in French and shorter values in German compared to monolinguals) and there were also dissimilation effects in some cases (extreme values in one of their languages to maintain maximal contrast (Flege 1995:241). Also, a relation between target deviant VOT and perceived foreign accent could be found. However, this did not hold true neither for each participant, nor for each of the stops. Speakers with foreign accents sometimes showed only slight deviations, which were also present in some speakers without detectable foreign accents.

References:

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Deconstructing non-nativelike accent Conxita Lleó (Universität Hamburg)

Research on acquisition has shown that age has a crucial effect on language acquisition, as there hardly are any learners with AO (age of onset) beyond puberty who reach a nativelike accent. However, there are differing opinions as to the concrete age at which the dividing line between nativelikeness and non-nativelikeness is placed. Moreover, there are children exposed to a second language with a very early AO, as well as children exposed to more than one language from birth, who may also develop a non-nativelike accent.

In this presentation we will discuss a few fundamental issues on language acquisition by subjects exposed to more than one language: what do we mean by a non-nativelike accent? What are the determinant factors of a non-nativelike accent? Although traditionally, segments have been at the basis of the definition, we will argue that prosody (syllable structure, liaison, stress, rhythm, intonation, etc.) is as basic, if not more so, in defining a non-nativelike accent. I will present developmental data based both on segments and on prosody, which show a continuum from monolinguals to balanced bilinguals, cL2, heritage learners, and adult L2. Although we will show data that make the continuum clear, on the basis of our developmental data, and especially on data involving ultimate attainment, we will still argue in favor of some dividing line whose position is not clear, but which points to the fact that as Abrahamson & Hyltenstam (2009:290) say, “an early AO of acquisition is a *necessary* although not *sufficient* requirement for nativelike ultimate attainment in an L2”.

This means that other influential forces are at stake besides age. Some general factors, applying both to children and adults, are: amount of input, more or less usage of L1/L2, presence of the L2 in the larger social environment, frequency of the phenomenon (e.g. whether it only appears in one of the languages or in both), markedness, complexity. Other factors, applying only to adults are well-known to SLA, such as motivation, learner’s attitude, as well as individual abilities to learn languages. The list of putative factors is long, and we should try to design a hierarchy that orders them according to their strength. One of the crucial questions to deal with is whether non-nativelike accent is due to incomplete acquisition or to bilingual interaction, i.e. to transfer from L1? The answer will depend on the phenomenon being analyzed, and also on the underlying theory.

On the perceptual bases of foreign accented speech: Universal preferences and language-specific biases in nonnative vowel perception

Ocke-Schwen Bohn (English Degree Program and
Center on Autobiographical Memory Research (Conamore), Dept. of Psychology
Aarhus University Denmark)

This presentation reviews the accented perception of vowels by focusing on two forces which shape nonnative vowel perception: Universal perceptual preferences which nonnative listeners (and infants) bring to the task of vowel perception, and perceptual biases which nonnative listeners transfer from their native to the nonnative language.

Both nonnative listeners and infants show preferences for peripheral vowels in the universal human vowel space. These preferences led Polka and Bohn (2003, 2011) to suggest that Natural Reference Vowels (NRVs) play a special role in learners' attempts to structure the vowel space of their ambient language. The presentation will review evidence on the NRV framework and discuss how language experience shapes the preference for NRVs.

In addition to these preferences, naïve nonnative listeners have been reported to rely on acoustic properties which are nonfunctional in their L1 and dysfunctional for the perception of nonnative vowels. Bohn (1995) attempted to account for this apparent paradox, and the presentation will review recent evidence examining Bohn's Desensitization Hypothesis. In addition to the two types of universal preferences captured by the NRV framework and the Desensitization Hypothesis, nonnative listeners have long been observed to show L1-specific biases in nonnative vowel perception. However, these biases are not well predicted by comparative analyses (e.g., acoustic comparisons) of vowels of the native and the nonnative language (Strange, Bohn, Trent & Nishi 2004). This presentation addresses several of the still unresolved questions regarding the design and the interpretation of studies attempting to predict the influence of the L1 on the accented perception of vowels.

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The initial development of Voice Onset Time in early L2 French Frida Splendido (Lund University)

Research on Voice Onset Time (VOT) in L2 has largely focused on end-state learners. VOT has been used as a dependent variable for examining effects of age of onset of acquisition (AoA) on L2 pronunciation. Many of the studies find such effects (Abrahamsson & Hyltenstam, 2009; Birdsong, 2004). At the same time little is known about the initial

development of VOT in early L2 and if AoA effects can be observed already at this stage of learning.

The present study therefore focuses on the production of voiceless stops in early L2 learners of French. More precisely, it examines the initial development of VOT in two Swedish-speaking children. Indeed, whereas Swedish voiceless stops are associated with a long lag VOT, French /p, t, k/ are produced with short lag. The Swedish children thus have to learn to shorten VOT when producing voiceless stops in French. Both learners studied have AoA at three years but their Swedish, L1, phonologies are not equally developed when they start acquiring the L2, French. This raises the question of how this initial difference affects the children's development of VOT in French (cf. the unfolding hypothesis, Flege, 1999). A picture denomination task, in the form of a memory game, was used to target the production of voiceless stops. Two age-matched L1 children and two simultaneous bilinguals served as controls. Data collection is ongoing but initial results indicate a difference between the two early learners.

Two methodological issues are raised. The first one concerns the use of reference speakers when studying L2 learners aged 3-5 – matching by age or time of exposure. The second one deals with different ways of measuring VOT: in milliseconds and as percentage of a syllable. Indeed, the latter requires clear measurements of syllable duration, which can be difficult to obtain in child data.

References:

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Second Language Acquisition across and within Levels of Language Camilla Søballe Horslund (Aarhus University)

Second language (L2) acquisition studies most often investigate learning of only one of several levels of a language, e.g. morphosyntax, phonology or vocabulary. Comparisons across levels, which is the aim of my study, have not been conducted systematically. Anecdotal evidence suggests that L2 learners may do remarkably better at some language aspects than at others. One famous example is the Polish-British author Joseph Conrad, who wrote English very well but spoke with a strong, unintelligible accent. This project intends to investigate the 'Conrad phenomenon'. The project thus aims to examine whether learning of L2 phonology, morphosyntax and vocabulary moves in a cohort, or whether there is a hierarchy of difficulty, such that, e.g. voice onset time is easier or more difficult to learn than regular past tense formation, and, if such a hierarchy exists, whether it is specific to the learners' first language (L1) or is directly caused by the characteristics of the L2.

The project will investigate the present research questions using English as the target language, thereby making it possible to compare the obtained results to the results of a large number of studies involving L2 English. Adopting a Most Different System Design, Danish and Finnish will be examined as source languages. Danish and Finnish differ in many respects and particularly in the similarities between the target language, English, on the one hand and the native languages, Finnish and Danish, on the other hand. Moreover, the differences

between Danish and Finnish are within phonology, morphosyntax and vocabulary, making the two languages appropriate as source languages for a study comparing L2 acquisition across and within these three levels.

My presentation will be on the motivation for investigating L2 acquisition across levels of language and on the methods involved in measuring and comparing L2 acquisition across levels of language. I will focus specifically on the phonetic differences between English, on the one hand, and Danish and Finnish, on the other hand, as well as on how these differences may be expected to affect the results of the phonetic tests of my study.

Tendencies of Swedish Word Accent Production by L2 Learners with Tonal and Non-Tonal L1

Mechtild Tronnier¹, Elisabeth Zetterholm²
(¹Lund university, Sweden, ²Linnæus university, Växjö, Sweden)

A good command of Swedish word accents is one of the difficulties that learners of Swedish as a second language encounter. It has been suggested that speakers whose L1 has lexical tones may have an advantage when it comes to mastering this difficulty. In this contribution, a comparison between second language learners of Swedish with different L1 (Farsi, Somali, Thai, Vietnamese), with or without lexical tones, and their ability to produce adequate word accents in Swedish is presented. All the L2-speakers are adults and are currently living in the south of Sweden (Skåne). They have studied Swedish up to a level of proficiency that allows them to pursue studies at high school level. They have mainly been exposed to the Scanian regional dialect in the classroom and in everyday life. The speakers were recorded when reading phonetically balanced sentences, which included segmental and prosodic variation and minimal pairs. No systematic distinction can be observed for the tonal patterns used between Swedish words with accent1 or accent2. However, the patterns of the observed tonal contours vary rather between different words not belonging to a minimal pair than between words being part of a minimal pair.

A clear preference for one of the two accent patterns is observed for each L1-speaker of the non-tonal language Farsi. It would be interesting to know whether tonal patterns similar to the Swedish word accents do have a pragmatic function or not in Farsi. There is, however, no clear evidence that it is easier to learn the correct Swedish word accent patterns and their correct application for speakers whose L1 is a tone language as of any sort. It instead seems to depend on the type of tone language. A hypothesis for future research is that if at least one word accent is similar to one of the tonal patterns in L1 and therefore contrasts with other tonal patterns, the mastering of the Swedish word accents may be facilitated.

Multilingual children's pronunciation when learning Swedish as a second language Elisabeth Zetterholm (University of Växjö)

The variety of foreign-sounding Swedish spoken by adolescents in multilingual urban settings in Sweden is described in e.g. Kotsinas (1988) and Bodén (2011). Focus of the research is the language used by adolescents in three suburbs with a high proportion of immigrant residents, Rosengård in Malmö, Rinkeby in Stockholm and Gårdsten in Gothenburg. The variety is also spoken by adolescents with Swedish as their first language. The foreign-sounding variety have features from many languages, not only one of the first languages represented by the

speakers. It is also known that speakers also use a standard variety of Swedish spoken in the area where they live. There are similarities and differences, especially concerning the prosody, between the varieties in the three suburbs.

One research question in this study is if young school children, age 9-11 years old, speak with the same variety of foreign-sounding Swedish when learning Swedish as a second language. Another question is if the same pattern is recognized in the suburb of Malmö as well as in a small town in another southern part of Sweden, namely Växjö in Småland. Children from two different schools with a high proportion of immigrants are recorded. Auditory and acoustic analyses have been done.

Preliminary results show that there are features in the young children's spontaneous speech remaining of the foreign-sounding variety spoken by the adolescents in all three suburbs. The most obvious features are the alveolar r-sound, the hyper articulation without reductions or assimilations and the use of discourse particles. These features differ from the regional dialect in the area where the children live. Are these young children influenced by the spoken variety of the adolescents? That is not a remarkable observation among children in Malmö. However, why do children in Växjö use the same kind of foreign-sounding variety? Is this a new kind of dialect and multietnolect spread among children and adolescents in multilingual areas all over Sweden? For this study only children are recorded, no adolescents in Växjö.

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Foreign accent in German-Turkish heritage speakers - Foreign looks = foreign sounds? Marina Zielke & Tanja Kupisch (Hamburg/Lund)

Despite the many studies on global foreign accent, showing that earlier is better as far as L2 pronunciation is concerned, there has not been a definite answer to the question what the earliest AOL (Age of Learning) is at which persistent foreign accents can become common. This is an ongoing study on global foreign accent (GFA) in 21 German-Turkish bilinguals who grew up in Germany, addressing the question whether there can be a lower limit in AOL with regard to GFA.

Speakers were exposed to Turkish from birth and to German successively between the ages of 3 and 6 years. Despite the earlier age of onset in Turkish, they generally consider themselves to be more proficient in German than in Turkish. A pilot study on the perceived accent of these speakers indicated that around 75% of the speakers were perceived to have a foreign accent in Turkish despite exposure to the language from birth. However, 50% of the speakers were also perceived as foreign in German. The result runs counter to a previous study on German-French and German-Italian simultaneous bilinguals, who had a GFA in the heritage language but not in the majority language (Kupisch et al., in prep.).

In addition to AOL-related issues, the present study investigates whether the GFA of the German-Turkish speakers is related to frequency of language use at the time of testing and self-ratings. Furthermore, we explore whether raters are influenced by physical appearance

when judging foreign accent. For this purpose, we created a rating task with stimuli extracted from naturalistic interviews with the German-Turkish speakers in German. Stimuli were presented together with pictures. We presented 2 samples from each bilingual speaker, one time accompanied by a photograph showing a “Turkish-looking” person, one time accompanied by a photograph showing a “German-looking” person. Pictures were pre-rated without sound stimuli to ensure that the persons on the picture looked unambiguously German or Turkish. There were a total of 42 stimuli, presented in a semi-randomized order. Results indicate that subjects are more likely to be perceived as foreign when they look foreign.