

Second Language Acquisition (SLA) As A Promoting Factor In Language Change

Doris Stolberg
Universität Tübingen (Germany)

Abstract

In long-standing language contact situations, SLA mechanisms can account for changes in L1. While it is obvious that L1 influence on L2 can be accounted for as a transfer effect, I postulate that SLA effects are responsible for certain aspects of L2 influence on L1 as well. This is transparent if early stages of SLA are compared to early stages of language contact: what is affected most in both cases is the lexicon. Examples are drawn from Pennsylvania German, a German-based language spoken in the USA and in contact with American English (AE) for c. 300 years. The data imply that the conceptual matrix of the speakers' minds has shifted from German to AE, resulting in constructions that can be traced to AE, while the conscious language choice is still German. This conceptual shift relates to a stage in SLA, when the learner begins to get a grasp of the internal systematicity of the L2 and reduces the transfer of structural L1 material to L2, i.e. the beginning of a structuralization process in the learner's interlanguage.¹ The quality and sequence of the "invading" material in language contact is strikingly similar to the sequence of the material composed in the process of SLA, implying a close relationship between the two processes.

0. Introduction

The main emphasis in my paper is on a specific kind of language change caused by language contact: the change of subcategorization frames. The language I will focus on is Pennsylvania German (henceforth PG), a German based variety exhibiting influence from English after long-term language contact (c. 300 years).

First, I will give some brief background information about PG, its uses and speaker communities and the kind of changes found as a consequence of the long and intimate contact with English. I will then introduce the data I have worked with and the types of changes found in subcategorization frames of PG verbs. Finally, I will connect my findings with SLA processes and in this context offer my interpretation of the changes found.

1. Pennsylvania German

1.1. The speech community

The speech community of the PGs consists of the descendants of German settlers who immigrated to North America mainly during the first half of the 18th century. The immigrants were speakers of different but closely related southwestern German dialects (mainly Palatinate German, but also Swabian, Alemannic, Elsatian, Hessian). PG is the result of mixture and levelling of the original immigrants' dialects.

¹ cf. Klein & Perdue (1997, p. 33) and their criticism of Givón's (1979) "pragmatic mode" and "syntactic mode"

Today, all PGs are native speakers of English, monolingual or bilingual. The most important division of the speech community runs between "plain" and "non-plain" PGs, the first group being defined by their plain lifestyle. As a speech community they are to be distinguished from the non-plain people, descendants of German immigrants from the same dialect regions, but by now fully integrated into mainstream American society. The large majority of the plain group are balanced bilinguals since their speaking German is one of the elements marking their group identity; for most of the bilinguals in the non-plain group today PG is their weaker language.

For my investigation, I selected texts from the same region and of the same genre to secure comparability over time. The PG texts I worked with were published in newspapers and magazines between 1868 and 1992, all of them in southeastern Pennsylvania.² All the texts were, to my knowledge, produced by non-plain speakers of PG. My interest in a "diachronic" approach made this choice necessary because the plain speech community tends not to make written use of PG.

1.2 The language

Before presenting my language-specific observations, I want to give a quick overview over how languages in contact behave generally when they exert influence on one another. For this purpose, I will refer to two models which partly overlap and partly supplement each other: the Thomason/Kaufman model and the Van Coetsem model (Thomason/Kaufman, 1988; Van Coetsem, 1988 and 1995³). Both models distinguish between the two possible directions of influence leading to different outcomes in the process of contact and interference; they differ in that Van Coetsem's model places the focus on the Recipient Language vs. the Source Language becoming active in the transfer process while Thomason / Kaufman focus on language maintenance (with borrowing) vs. language shift.

² Lancaster: Pit Schrefflebrunner (1868), Allentown: Sim Schmalzgsicht's Own Magazine (1913), Allentown Morning Call / Es Deitsch Schtick (1978-85), Harleysville: Town & Country (1989-92).

³ Van Coetsem (1995) gives a concise and more generalized presentation of the findings and the model developed in Van Coetsem (1988). Thus, I will henceforth refer to Van Coetsem (1995) only.

figure 1

| model | direction of transfer | transferred material |
|-------------------------|-----------------------------------------------|------------------------------------------------------------|
| Thomason/Kaufman (1988) | L2 -> L1: Borrowing (Language Maintenance) | lexical; after long-time contact also structural |
| | L1 -> L2: Language Shift | structural + phonological |
| Van Coetsem (1988/1995) | RL <- SL (L1 <- L2) Borrowing Transfer | primarily less stable components (lexicon) ⁴ |
| | SL -> RL (L1 -> L2) Imposition Transfer | primarily more stable components (phonology) |

(RL = recipient language; SL = source language)

In the language contact situation I am dealing with, historically PG is the L1, or native language, and English is the L2, the newly added language. For the purposes of my paper, only the first direction of transfer is relevant, the Borrowing Transfer, which is English influence on PG.

For this setting, the two models make the following predictions:

- Lexicon: first and most affected by interference from English (source language)
- Syntax: possibly some interference
- Morphology (infl.): no surface interference observable due to lack of congruence
- Phonology: no interference

It is expected that the extent of interference will increase in proportion to length and intensity of contact.⁵

In general, these predictions are met by the data. However, with respect to verbs, the number of borrowed items has decreased over the past 130 years. This fact seems to contradict the predictions.

A comparative verb count in older and more recent texts showed a decrease of borrowed English verbs from over 30% (English portion of total no. of verbs) to below 10%.

⁴ "Though well aware of the fact that viewing stability in terms of domains oversimplifies the issue, we will consider vocabulary the least stable language domain, and phonology and grammar (morphology and syntax) the more stable ones." (Van Coetsem 1988, p. 26; original emphasis)

⁵ "Intensity of contact in a borrowing situation crucially involves factors of time and of level of bilingualism." Thomason/Kaufman (1988, p. 47)

figure 2

| | 1868 | 1913 | 1978-85 | 1989-92 |
|-----------------|-------------|-------------|------------|------------|
| G : AE % | 60.7 : 39.3 | 66.4 : 32.6 | 96.2 : 3.8 | 90.4 : 9.6 |
| G : AE absolute | 184 : 119 | 257 : 124 | 282 : 11 | 283 : 30 |

On the other hand, other changes seem to increase over the same period, specifically changes in subcategorization frames. The most likely explanation is the following: during the last 2 - 3 decades, (non-plain) PG speakers, facing the threat of extinction of PG in their speech community, have demonstrated strong purist tendencies. There seems to be a (more or less) conscious effort that leads to the expulsion of English lexemes. The choice of words is a fairly conscious process and can be manipulated to a certain degree. Grammatical structures, on the other hand, are much less under conscious control. So, a word form may be German, and yet, its underlying frame not, betraying the intention of the writer to keep it "purely German" and reflecting a more realistic degree of interference below the surface.

2. Changed Frames

Subcategorization frames are interesting in two ways: first, they fall into a borderline area between lexicon and syntax, being defined in the lexicon by Levelt (1989), Hoehle (1978), and others, but being realized on the syntactic level. Second, they exhibit change over time, reflecting an increasing interwovenness of the two languages in the speakers' minds which results in "micro-switches", switches that occur on a less conscious level than choosing word forms from the lexicon.

2.1. Levelt's model of a lexical entry

Looking for an instrument which allows for a more precise localization of these "micro-switches", I found Levelt's (1989) model for lexical entries quite useful and adequate to describe my data. His model was drafted in the context of speech production, and it is interesting here, because I wanted to find out at which points a speaker / writer links the languages s/he has available for the production of utterances, spoken or written. The model helps to define the lines that mark the different components of a lexical entry, which are connected with different triggering or processing procedures. Apparently, where such lines are drawn is also where a shift or switch in language can occur.

According to this model, the structure of a lexical entry can be imagined as follows (182):⁶

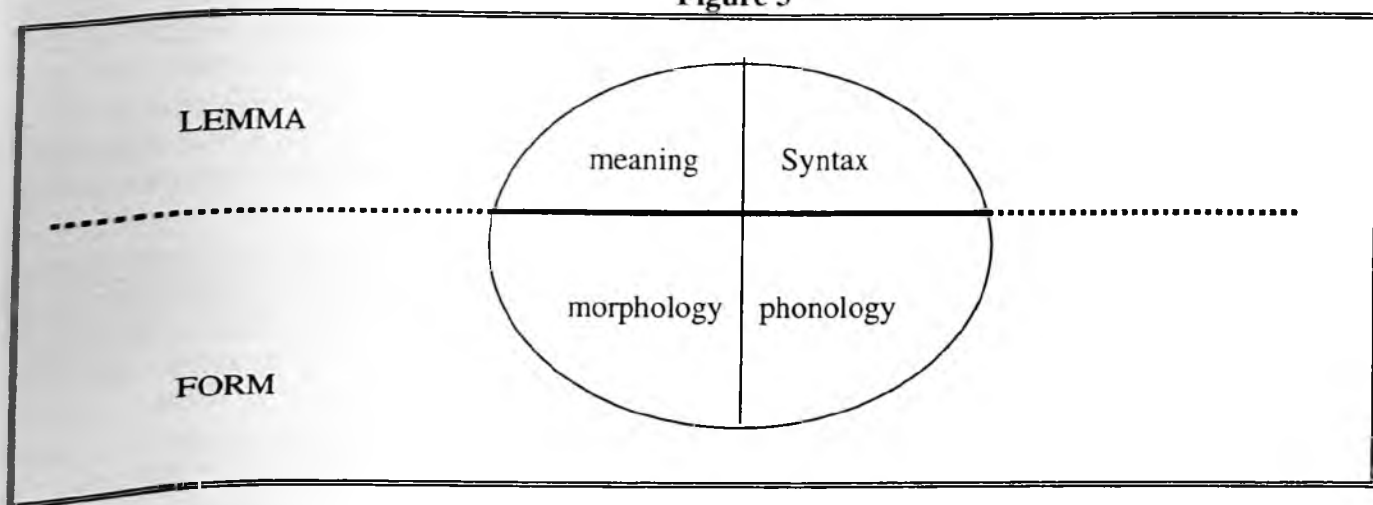
lemma: meaning and syntax of lexical entry⁷

phonological encoding: morphology and phonological properties (phonological form)

⁶ There are more components imaginable, as Levelt (1989) suggests, but he does not integrate them into the model because they have not been sufficiently specified yet.

⁷ Following Kempen and Huijbers (1983).

Figure 3



This pattern of partitioning is congruent with the observation that in PG meaning and / or syntax of a verb can belong to the English entry, while phonology and morphology are German.

2.2. Frames in code-switching and language contact

Based on Levelt's (1989) approach to speech production, a code-switching (CS) model has been developed which proves applicable to the PG data. Designed by Myers-Scotton (1993), it is called "Matrix Language Frame Model" (MLF model). The basic idea, very simplified, is the following:

In every code-switching context there is one language that can be identified as the Matrix Language (ML), setting the structural frame for the speaker's language production, while the other language is defined as the Embedded Language (EL). Central to this division is the distinction between system morphemes and content morphemes (roughly parallel to grammatical and lexical morphemes, respectively). In mixed utterances the contribution of the EL consists of content morphemes only, all the system morphemes being provided by the ML. During a CS interaction, shifts of the matrix language can occur, often depending on the subject or the participants involved.

I utilized the MLF model for my data by hypothesizing comparable structures for CS data and language contact data. I assumed PG to be the ML (since it is the language form explicitly chosen for the texts here) and English to be the EL. This assumption holds for the major part of the data, but I did find cases where the ML seems to have shifted from PG to English -- not on the surface, because the word forms are still PG, but somewhere below where the sentences show an obviously English "fabric". This English "fabric" I tried to track down by focusing my attention on changes in subcategorization frames.

2.3. The data

I divided the texts into four blocks: 1868 (I), 1913 (II), 1978-85 (III) and 1989-92 (IV) (the blocks are roughly comparable in size), and did a verb count (cf. figure 2 for some of the results). For the comparison of subcategorization frames, I looked at the 81 (German) verbs that occurred in all four blocks. Not all of the verbs were relevant for my research; verbs like eat and drink, for example, are too similar in their subcategorization frames in English and G to promise any interesting results. Other verbs did not appear frequently enough to be significant.

I found micro-switches between languages in the lemma (meaning component and syntactic component of the lexical entry) and an occasional merger in the phonological form.⁸ What I will present here are examples for micro-switches in the syntactic component of the lexical item.⁹ The most obvious changes can be categorized with regard to two main characteristics: \pm reflexive, \pm transitive. The availability of a new option becomes most visible when constructions are produced that are ungrammatical in the corresponding German dialects.

To illustrate my point, I will describe four of the most illuminating verbs¹⁰: *fiele/feel* (+/- reflexive), *wunnere/wonder* (+/- reflexive); *verlusse/leave* (+/- transitive), *wocksa/grow* (- /+ transitive -> causative).

Examples from the data

(Roman numerals refer to the four text blocks)

+/- reflexive

fiele / to feel (intransitive): + reflexive -> - reflexive (change completed)

| | | |
|-------------------------|-------------------------|----------------------------|
| meaning: | to feel | |
| syntax: | G: reflexive + adverb | sich gut fühlen |
| | AE: + adverb | to feel good ¹¹ |
| phonology / morphology: | as in Palatinate German | |

Example (PG):

(1) donn hab ich ordlich goot g'feeld derweaya (I)*

⁸ e.g. *erschounde* (G *erstaunen* + AE *astound*), 1913.

⁹ Besides that, mergers of meaning (semantic micro-switches, e.g. *nemme/take*, (fer)fehle/miss) can be found, but they will not be discussed here.

¹⁰ I am looking at "German" verbs only here; what is interesting about them, is that they, at first sight, seem to be "true German verbs", i.e. they are not borrowed from AE and show no obvious sign of change. But at a closer look it is noticeable that they have changed in a more subtle way. This is the kind of change I am interested in here, since it seemingly has escaped notice so far and has, in any case, not received any systematic treatment.

¹¹ The position of the adjective is different in G and AE, too, but this is part of the general syntactic structure of the two languages and not part of the subcategorization frame.

then have I rather good felt because-of-that
 'then I felt rather good because of that'

vs. Standard/Palatinate German:

- (2) dann habe ich mich ordentlich gut gefühlt deswegen
 then have I REFL rather good felt because-of-that
 'then I felt rather good because of that'

wunnere / to wonder: +reflexive -> +/- reflexive

| | | |
|----------|---------------------------------------------------|--------------|
| meaning: | to wonder, to be surprised ¹² | |
| syntax: | G: pers ¹³ . subject + reflexive (ACC) | sich wundern |
| | AE: pers. subject | to wonder |

phonology / morphology: as in Palatinate German

Examples (PG):

- (3) Der Wunnerfitz in mich wunnert sich eb... (III)
 the curiosity in me wonders REFL whether...
 'The curiosity inside of me wonders whether ...'
- (4) Ich wunner eb m'r en Inscha Summer greiga des yohr. (IV)*
 I wonder whether we an Indian Summer get this year.
 'I wonder whether we will have an Indian Summer this year.'

(* This sentence would be ungrammatical in Standard and Palatinate German.) +/- transitive

+/- transitive

ferlussa / to leave: transitive -> transitive + intransitive (IV only)

| | | |
|----------|-------------------------------|------------|
| meaning: | to leave, go/move away (from) | |
| syntax: | G: + ACC (place, person) | obligatory |
| | AE: (+ ACC) | optional |

phonology / morphology: as in Palatinate German

Examples (PG):

- (5) un m'r ferlussa Dunnersdawg, marieyets um sechs uhr. (IV)*
 and we leave Thursday morning-ADV at six o'clock

¹² The meaning of *wunnere* has changed in the direction of the AE cognate *to wonder*; i.e., by now it is a homonym rather than a dialect variant of Palatinate G (*sich*)*wunnere*.

¹³ pers. = personal / personified

'and we leave on Thursday, in the morning at six o'clock'

- (6) we de Senia Schpeckmous ierer haemet on Deivels Luch ferlussa hut (II)
 as the Senia Schpeckmous her home at Devil's Hole left has
 'when Senia Schpeckmous left her home at Devil's Hole'

wockse / to grow: intransitive -> intransitive + transitive (+/- causative) (IV only)

meaning: to grow

syntax: G: intransitive

AE: intransitive + transitive (= causative)

phonology / morphology: as in Palatinate German

Examples (PG):

- (7) owwer sie hen all grossa gorda un wocksa dale fun ihr ess sacha. (IV)*
 but they have all big gardens and grow part of their eat things
 'but they all have big gardens and grow part of their food'

- (8) der grund is so maager os es ungrout even net gaern druff waxadutt. (II)
 the ground is so meager that the weed even not gladly on-it grow does
 'the ground is so poor that not even weeds like growing on it'

(* The starred sentences would be ungrammatical in Standard and Palatinate German.)

The changes are obviously modelled on the syntactic component of each English counterpart. In all cases, the new options lead to an approximation between PG and English, while the phonological form of each verb remains German and thus continues to function as a marker of group identity for the PG speech community.

2.4. *Micro-switches*

In the sense of the MLF model, the activation of specific lexical entries sets up micro-frames, and within these micro-frames, micro-switches are possible. The word form may still be PG but, on a deeper level, the lemma frame is (or: can be) English. This shows that switches are possible on a much smaller scale (e.g., that of features such as reflexive or transitive) than sometimes assumed in code switching approaches, when words or even (parts of) whole sentences are seen as the relevant switching units.

The MLF model triggered the idea of looking at English interference in PG as switched units and led to the question of how small these units can be (I have no definite answer yet), or if this model can be used at all at this "micro-level". My results support the notion that the model is applicable to data that need not specifically constitute code-switching data but that still contain elements from more than one language -- in other words: to data from any language contact situation.

While the linguistic source of the phonological and morphological components is held constant (by the choice of PG as the linguistic medium), micro-switches occur in the syntactic component (subcategorization frames) and the semantic component of the lexical entry, i.e., in the two components constituting the lemma.

3. The SLA Connection

Van Coetsem (1995, p. 65) points out that "[s]econd language acquisition is a form of language contact, but the emphasis has generally been on language acquisition." In this sense, a process similar to the one described above can be expected to occur during SLA. At the first stage of language acquisition (L1 and L2), words are acquired (cf. Pienemann 1997, p. 316). In language contact of the type discussed here, the Borrowing Transfer (L2 → L1), it is also the lexicon that is affected most.

If the starting point for language acquisition and Borrowing Transfer is the same, it seems reasonable to assume that the process of constructing lexical entries at this stage is comparable. In the language contact situation I described a decision for one language, in this case PG, has been made which determines the form of the lexical item. The same is true in SLA: the form chosen is the one belonging to the target language¹⁴. At an early stage in SLA (and at any later stage whenever a new lexical item is acquired), the full lemma information is not always immediately available to the learner. If s/he uses an incomplete item (and at this early point there may be no other option), the learner needs "to compensate for his / [her] lack of proficiency" (Van Coetsem, 1995) by turning back to his / her L1 and filling in the missing information from this source. So, if the syntactic component of the L2 item is underspecified, it will be substituted by the syntactic component of the closest item in L1 -- "closest", in most if not all cases, meaning semantically closest, i.e. the learner relies on compatibility in the meaning component of the lemma.

Examples from German ESL learners include:

- (9) explain me this sentence
(ESL explain / bitransitive < G erklären + DAT + ACC)
'explain this sentence to me'
- (10) he believes to do that for his sake
(ESL believe + to + infinitive < G glauben + zu + infinitive)
'he believes he does that for his sake'
- (11) I am looking forward to see you
(ESL look forward + to + infinitive < G sich darauf freuen + zu + infinitive)
'I am looking forward to seeing you'

I.e., we find the same kind of micro-switches in second language acquisition as in the language contact data I have described.

¹⁴ Even if it is only an approximation -- but it is clearly *not* the form of the native item.

This evidence supports the notion that the parts of a lexical item (as described in Levelt's (1989) model, cf. figure 3) can be accessed separately by different languages. As a matter of fact, the acquisition of an additional language is a prerequisite for these micro-switches to become possible, and the process that affects one language (L2 in SLA) also affects the other language (L1). This is why SLA is a promoting factor in language change.

4. Final Remarks

The focus of my talk has been on "mixed" or "hybrid" verbs (PG form + AE lemma). I consider them the truly interesting part of my data because they mark the point where it becomes increasingly difficult to decide whether a lexical item is English or G in its underlying structure; both languages have contributed their share. The question then is, which language has contributed which part or component? And how can we picture this structure psycholinguistically, i.e. in the mental lexicon or in some sort of lemma list?

The possibility of marking parts of lexical items (rather than the whole item) for different languages has to correspond to some structural division or modularity also in the monolingual lexicon¹⁵. Without such pre-existing modular division at precisely those points of the lexical entry where the language is switched, such switches would be impossible. This approach corresponds closely to Myers-Scotton's MLF model, just "one level down": applied not to the syntactic level but within the lexical entry.

Thus, the location of the switch between languages gives a significant hint at the structure of lemmas and, more generally, the way items in the mental lexicon are built up, for the monolingual as well as the bi- or multilingual speaker.

Evidence from change through language contact can help us to get a better picture of what can be exchanged if two (or more) languages "meet" in one speaker; where the lines of structural organization are drawn; and how information can merge to relieve some of the psycholinguistic pressure on a bi- or multilingual speaker (caused by the amount of information to be organized).

Obviously this is relevant in SLA as well as in language contact, because SLA is one type of language contact. Language contact data gives us information about what happens if languages meet in a "natural" environment. If we assume the possibility of merger in lexical entries to be a structured process, deviations from the target language in SLA can be explained in a systematic way in this sense. The micro-switch stage may be fossilized or transited, in some cases for one individual item after another, in other cases by a whole group of related items all at once.¹⁶

¹⁵ Unless one wants to postulate a fundamentally different lexicon structure dependent on the number of languages available to a speaker. This is clearly undesirable from a theoretical point of view and implausible from practical experience (it would require a complete and deep restructuring of a speaker's lexicon for each new language s/he learns). In this sense, I take a homogeneous basic structure of the lexicon as the most plausible assumption.

¹⁶ If the (re-)setting of a parameter is involved; cf. Juffs 1996 regarding the usage of state locatives and "psychological" verbs by Chinese learners of English.

Abbreviations used:

| | |
|-------|------------------------------|
| ACC | accusative case |
| ADV | adverbial |
| AE | American English |
| CS | code-switching |
| DAT | dative case |
| E | English |
| EL | Embedded Language |
| ESL | English as a Second Language |
| G | German |
| infl. | inflectional |
| L1 | first language |
| L2 | second language |
| ML | Matrix Language |
| MLF | Matrix Language Frame model |
| PG | Pennsylvania German |
| REFL | reflexive pronoun |
| RL | recipient language |
| SL | source language |

References

- Juffs, A. (1996). Semantics-syntax correspondences in second language acquisition. *Second Language Research*, 12/2, 177-221
- Klein, W., & Perdue, C. (1997). *The basic variety (or: Couldn't natural languages be much simpler?)*. Ms., Max-Planck-Institute for Psycholinguistics, Nijmegen
- Kroch, A. S. (1996). *Syntactic change and the nature of grammar*. MS, University of Pennsylvania.
- Levelt, W. J. M. (1989). *Speaking. From intention to articulation*. Cambridge: MIT Press
- Myers-Scotton, C. (1993). *Duelling languages. Grammatical structure in codeswitching*. Oxford: Clarendon Press
- Pienemann, M. (1998). *Language processing and second language development: processability theory*. Amsterdam: Benjamins
- Thomason, S. G., & Kaufman, T. (1988). *Language contact, creolization and genetic linguistics*. Berkeley: University of California Press
- Van Coetsem, F. (1988). *Loan phonology and the two transfer types in language contact*. Dordrecht: Foris
- Van Coetsem, F. (1995). Outlining a model of the transmission phenomenon in language contact. *Leuvense Bijdragen*, 84/1, 63-85
- Wood, R. (1939). "Der Bauernfreund" von Sumneytown und Pennsburg und der Sprachenkampf in Pennsylvanien. *Volksforschung*, 3/3, 222 - 242