

EMIGRANTO DATA: A 'DEPENDENCY' APPROACH TO CODE-MIXING

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1. Introduction

Structural patterns of subordination produced by German-English bilinguals are at the centre of this study. In accordance with the sub-title of the symposium, the linguistic behaviour of an individual is compared to that of a close-knit group of the 'Emigranto' community². The data are transcribed in the LIDES format³. Examples are described and analysed within the framework of *Word Grammar* (Hudson, 1984, 1990), a dependency approach to syntax, morphology and semantics.

The Null-Hypothesis, i.e. there are no constraints on code-switching and mixed discourse largely conforms to the rules of the two monolingual grammars involved, was confirmed in most code-mixed and monolingual examples alike. In the last sixty years 'Emigranto' has, however, developed a more relaxed grammar for German which, among other things, allows finite verbs to appear in second position even in German-only subordinate clauses. These parochial conventions will be discussed in the main section of this paper. They seem to spread from code-mixed to monolingual discourse.

2. Emigranto Data

The term 'Emigranto' was coined in the late 1930's, early 1940's when the Jewish communities from Germany, Austria and other parts of the former Austro-Hungarian Monarchy had to emigrate. In the United Kingdom we are dealing with a community in which German and English have been in close contact for almost sixty years. Due to conditions of emi- and immigration, the age of onset of the L2 was during adolescence for most speakers. This affects the phonological inventory of the speakers' English but not their high proficiency in both languages as far as morphology and syntax are concerned.

For the present study a small sample of the whole corpus was used. 95 minutes of a sociolinguistic interview, disguised as an oral history collection, with an 83 year old woman,

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² German speaking refugees from Nazi-occupied territories who settled in Great Britain.

³ Moyer, M.G., Cordó, Eva (this volume), "LIDES and the analysis of bilingual conversation".

and the same speaker in a group with four of her friends (and the researcher) during an informal gathering which involved a game of cards. The group recordings constitute data of slightly over 300 minutes. This pilot-study is thus based on seven and a half hours of audio-recordings.

3. Word Grammar

Word Grammar (WG) is a theory of language structure. Its name reflects the central position of the word as a unit of analysis. The most important distinguishing characteristics of this grammatical theory are:

- knowledge of language is a particular case of more general types of knowledge. This assumption places WG in the domain of cognitive linguistics;
- syntactic structures are analysed in terms of dependency relations between single words⁴. Everything that needs to be said about language structure can be said in terms of these dependencies, so there is no need of phrase structure.

A dependency analysis defines phrases as by-products, rather than as the basic categories of the analysis. For each word (W) there is a phrase consisting of W plus all the phrases of all the words that depend on it. W is called the root or head and the words that depend on it are either complements or adjuncts of it.

Word Grammar is stricter than typical European dependency grammar in its treatment of word order. The adjacency principle requires all phrases to be continuous. To allow for obvious exceptions to the adjacency principle, such as raising patterns e.g., the rules of traditional dependency grammar are relaxed in that (a) one word is allowed to be the dependent of more than one word, and (b) discontinuity is permitted just in case there is a complete sub-structure which is tangle-free, i.e. not discontinuous. The enriched dependency structures of WG combine both ‘deep’ and ‘surface’ structure information into a single, completely surface, structure, thereby making transformations unnecessary.

Another important tenet of WG is that generalisations are made by default inheritance –anything which is true of some general category is also automatically true of its instances unless blocked by a specific fact.

Thus we can reformulate the Null-Hypothesis in WG terms as: each word in a dependency must satisfy the constraints imposed on it by its own language.

⁴ Constituency analysis is applied to co-ordinate structures only.

The most important advantages of WG over other grammatical theories for the analysis of code-mixed discourse then are:

- it requires less analysis than constituency-based models because the only units that need to be processed are individual words. Larger units are built by dependency relations between two words which can be looked at individually. Generalisations thus apply to individual dependencies rather than phrase types;
- the rich dependency structures allow a completely surface analysis. Romaine (1989: 145) convincingly argues that mixed utterances are surface structure phenomena;
- it provides a much more suitable basis for corpus analysis aimed at establishing co-occurrence statistics than constituency structure does;
- there is no distinction between lexical and functional heads;
- it allows the inclusion of rich valency information in terms of dependency types, and
- it allows the incorporation of sophisticated sociolinguistic information about words.

4. Subordination in German and English

Subordination was chosen as a topic for this pilot-study because the two languages in contact in the ‘Emigranto’ situation display some interesting differences. The contrasting word order rules for English and German, stated in WG rules (made simple), are:

E1 In English any verb follows its subject but precedes all its other dependents. This holds true for main as well as subordinate clauses and gives rise to an SVO order in both clause types.

E2 subordinators, e.g. *because*, require a following finite verb as their complement. A word’s complement generally follows it⁵.

(1) I gave him a lily because he likes them.

In German the most relevant rules concerning word order in main and subordinate clauses are:

G1 Any finite verb follows one of its dependents but precedes all other dependents. This gives rise to a V2 word order in German main clauses.

G2 A finite verb which is also ‘subordinate’ follows all its dependents, i.e. German subordinate clauses are verb final.

G3 Subordinators, e.g. *weil*, require a following finite ‘subordinate’ verb as its complements. According to G2 finite ‘subordinate’ verbs are in final position.

(2) Ich gab ihm eine Lilie, weil er sie mag.

Other differences between English and German, like verb + particle placement, rules on extraposition, and ‘scrambling’ (Haegeman 1991: 534ff), will be illustrated as they occur in examples.

5. Subordination in the ‘Emigranto’ data

5.1. Subordinators *because* vs *weil*

The most obvious feature of the individual speaker’s subordinations in code-mixed discourse is the frequent occurrence of *because* as a single lexical item in an otherwise predominantly German context. In the data analysed, speaker D produces eight *because* with both its head, i.e. the finite verb of the main clause, and its complement, the finite dependent verb of the subordinate clause, in German.

(3)⁶ Es war unsere eigene Schuld **BECAUSE** man fühlt sich mit den eigenen Leuten wohler.
It was our own fault one feels oneself with the own people happier.

In another three examples with the same structure and language make-up the head of the subordinator *because* is uttered by a different speaker, as in:

(4) L: WARUM WART’S IHR NICHT?
Why didn’t you go?

D: **Because** ES IS’ NICHT AUSGEGANGEN.
it did not work out

Apart from these examples, where *because* can be argued to be a single lexical item inserted in otherwise German discourse, the corpus also contains three examples by the same speaker where the head of the subordinator is English and its complement German.

(5) “Nicolas, eat it with DER HAND **because** DAS SCHMECKT GANZ ANDERS.”
the hand that tastes very differently

Note now that in all these examples the finite verb of the subordinate clause occurs after the subject in, for German, ungrammatical second, instead of final position. Do they contradict the null-hypothesis? No, because although the English subordinator requires its complement to be a finite verb, rule E2 (section 4) does not say anything about the feature ‘subordinate’, which is peculiar to German. Therefore it does not impose ‘subordinate’ on the complement and the default order (G1) applies.

⁵ Cf. default inheritance rules apply to the few English constructions in which the complement comes before the head.

The question still arises whether the English subordinator *because* triggers English SVO order, i.e. whether we are dealing with syntactic transfer(ence) (Clyne, 1971, 1987: 750), or whether German main clause word order (V2) is applied to subordinate clauses. Consider the following example as evidence supporting the latter interpretation:

(6) D: I lost **because** # DREIMAL GAB SIE MIR DREI KÖNIGE +...
three times gave she me three kings...

(7) BUT IT'S sehr NICE **BECAUSE** MOSTLY sind doch alle [//] arbeiten doch alle schon nicht mehr.
very are intf all, work intf all no longer no more.

In the above examples the verb is in second position, preceded by adverbials but followed by the subject.

The English subordinator *because* does not affect the order within the subordinate clause, so we find the default order stated in G1. Even if the finite verb in the subordinate clause is German, it is not required to be labelled 'subordinate', so it shows the default V2 order. G2 would only apply if G1 did not.

The result is a pattern which is not allowed by either language: subordinator followed by V2 order; and yet each individual word is grammatical in terms of the rules of its language.

In order to find supporting evidence for the V2 interpretation I looked at monolingual utterances by the same speaker. The vast majority of subordinations are grammatical according to the different rules of English and German. However, this speaker also produces sentences like (8) where the dependent verb is in second instead of final position in a purely monolingual sentence.

(8) ...deswegen sind wir doch alle hier, weil es war nicht so typisch Englisch.
this is why are we intf all here, because it was not so typically English.

So speaker D sometimes seems to over-generalise German main clause word order (or rule G1) to subordinate clauses.

I could not find a single example of the German translation equivalent of *because*, i.e. *weil*, in otherwise English contexts nor in mixed utterances. In the speech sample studied, speaker D produces only two *weil* in German monolingual discourse⁷.

In mixed discourse, on the other hand, she produces thirteen *because* with its German verb complement in second position. In English monolingual stretches she produces two

⁶ What seems to be the dominant language of stretches of discourse appears in lower case letters. No formal model for determining a 'base' or 'matrix' language, e.g. The Matrix Language Frame Model (Mayers-Scotton, 1993), was applied. Cf. footnote 7.

because with English verb complements in grammatical position, and one with the English verb complement in second but not in SVO position. In (9) the ‘subordinate’ verb is preceded by a time adverbial and followed by the subject of the subordinate clause.

(9) we can go earlier **because** at four thirty starts the quiz.

The above example shows that this speaker sometimes generalises the German default pattern (G1) not only to German, but also to English ‘subordinate’ verbs.

I then looked at the same subordinator pair in the speech of four other speakers of the same community and found examples like (10), (11) and (12).

(10) M: 00es ist wahr **BECAUSE** bei mir hat schon +...
00it is true at my (place)has already

(11) D: really, why?
 L: **BECAUSE** er ist ein aufbrausender IRISHMAN.
he is a hot-blooded

(12) T: **BECAUSE** frueher haben wir gespielt +...
earlier have we played

Examples (10), (11) and (12) are structurally *identical* to examples (3), (4) and (7) produced by speaker D.

A complex example of a construction with several different subordinators, code-switches and false starts furthermore illustrates that verb second order for German subordinate clauses seems to be more permissible in ‘Emigranto’.

(13) MEL: und dann, **wenn** sie faengt an zu singen, dann lache ich mich wie bloed,
and then, when she starts to sing then laugh I myself like mad
weil ich die ganzen Lieder, **die** sie singt +... I DON’T KNOW # ich kenne sie nicht
because I the all songs which she sings I know them not

Without V2 over-generalisation the first monolingual German *wh*-clause would require the finite ‘subordinate’ verb *start* to go in final position after the infinitive *to sing*.

Furthermore, if a German ‘subordinate’ verb takes a particle like *an* in (13), they ought to form a morphologically complex word in final position, i.e. *wenn sie zu singen anfaengt*. In main clauses the particle remains in final position, the verb, however, appears in second position, cf. *sie faengt zu singen an*. As far as verb + particle placement is concerned, (13) therefore neither conforms to German main –nor to German subordinate– clause order rules.

⁷ Cf. Example (18).

The extracted and preposed *weil*-clause is followed by a completely grammatical wh-relative, further specifying the object of the *weil*-clause, with verb final position. After the trailing off characteristic of false starts speaker M attempts to finish the *weil*-clause first in English, then in German. The German version once again shows V2 word order and not verb final, as would be required for German subordinate clauses.

Although in the speech sample studied the use of German and English is fairly balanced⁸, the group of ‘Emigranto’ speakers produced three times as many *because* as *weil*.

5.2. Subordinators *that* vs *daß* vs 0

In the total sample of the ‘Emigranto’ corpus analysed for subordination, the subordinators *that* and *daß* are about equally frequent. And again, the overwhelming majority of examples is grammatical according to the monolingual grammars of German and English. This statement also holds true for stretches of discourse that show heavy intra-sentential code-switching. Consider examples (14) and (15), in which the subordinators’ head verbs are English and their dependent finite verbs are German, (14) was produced by speaker D, (15) by a different member of the ‘Emigranto’ community.

(14) D: What do you mean, “I don’t know.” I know exactly **DASS** ICH NICHT LEB’.
That I (do) not live.

(15) M: I forgot **DASS** WIR ALLE WIEDER EINE NEUE PARTIE ANGEFANGEN
 that we all again a new game started

E1 applies to the main clause and G2 and G3 apply to the subordinate clauses.

Speaker D, however, also produces a monolingual example in which the very presence of the same German subordinator *daß* (G3) should block the default rule (G1) and instantiate G2. Because this does not happen we get the finite dependent modal in V2 position and the non-finite *fahren* in clause final position, i.e. German main clause word order in a monolingual subordinate clause.

(16) Ich wollt’s so gern haben, **daß** er soll nach Wien fahren.
I wanted it so much have that he should to Vienna go

A slightly different mechanism is at work in example (17) where speaker T trails off after the English subordinator *that* and D completes the clause. The modal verb is in second position, followed instead of immediately preceded by the non-finite verb *einkaufen*.

⁸ I coded the speech sample for verbs. The speakers produce 251 independent and 59 finite dependent English verbs, and 297 independent and 57 finite dependent German verbs.

- (17) T: you buy yourself in means **that** +...
 D: +, DU KANNST DICH NOCHEINMAL EINKAUFEN
you can yourself once again buy-in

As in the *because* examples (3) to (7) the English subordinator does not affect the order within the subordinate clause, i.e. G3 does not apply, so we find the default order (G1). This results in a structure which is not allowed by either language but the example still does not violate the null-hypothesis because each individual word is grammatical in terms of the rules of its language.

The English complementizer *that* can be deleted. Speaker D makes use of this possibility in both monolingual (2 tokens) and code-switched (3 tokens) passages,

- (18) Sie haben gedacht **0** SHE IS MENTAL und haben sie in einen MENTAL WARD [-]
they (have) thought and have her in a
 und dann ist sie, **weil** sie so unglücklich war⁹, dort gestorben.
and then has she, because she so unhappy was, there died.

and so do other speakers of ‘Emigranto’

- (19) ICH HAB’ GEDACHT **0** there is going to be a fight.
I have thought

- (20) ICH HAB’ GEGLAUBT **0** the lorry is/IS(T)¹⁰ ...
I have thought

In the above examples it is not clear whether the deleted subordinator would be English or German but since rules E2 and G3 do not apply, and the ‘subordinate’ verb is in grammatical position for both languages¹¹, we need not worry about this.

The possibility to omit the English subordinator *that* in combination with German being V2 in subordinate clauses without an overt complementiser *daß* seems to render the complementiser position an ideal site for code-switching. Some researches (Muysken, 1990: 174) use the term neutralisation site for positions like the one described above. In the ‘Emigranto’ corpus studied the zero-*that/daß*-construction is three times as frequent (English 22 tokens, German 9 tokens) as the overt use of both complementizers. And indeed, speakers of ‘Emigranto’ frequently (9 tokens) change codes in that position.

⁹ Note that speaker D is perfectly capable of producing grammatical *weil*-clauses even in code-mixed contexts.

¹⁰ in this trailing off example it is virtually impossible to tell whether the verb is English or (Austrian) German because the two verbs are what Michael Clyne (1987: 754) calls bilingual homophones.

¹¹ It is possible to construct zero-subordinate clauses in German that do not require an overt complementiser *daß*. In this construction type V2 constitutes the grammatical word order for German.

Finally I would like to compare example (16) with a zero-complementiser example. (16) and (21) superficially resemble each other. Both subordinate clauses are composed of a subject pronoun, a dependent modal/auxiliary in second position followed by their respective infinite verbs and a prepositional phrase. Note, however, that it is not the V2 position that renders (21) vaguely grammatical. The speaker uses an interesting repair mechanism whereby she turns the direct object into a prepositional phrase in order to ‘allow’ for its.

- (21) ich hab’ gehoert **0** ihr habt gewonnen im QUIZ¹².
I have heard you have won in

5.3. Subordinators *if* and *wenn*

Speaker D produces both, English *if*-clauses depending on German finite verbs (2 tokens) and German *wenn*-clauses depending on English main verbs (4 tokens).

- (22) Am Abend um halb sechs geben sie dann so HIGH TEA, **IF YOU WANT TO**¹³, nicht?
In the evening, at half five, give they then such

- (23) D: **WENN DU** short **BIST**, you wouldn’t talk, **ABER WENN MAN GELD HAT**, you talk.
 when you are but if you money have

The overall distribution of these two subordinators in her speech, however, is very uneven. She uses *if* three times and *when*, which also translates into German as *wenn*, once. This seems to be an idiosyncratic preference of speaker D since the data from the group recordings yield 15 tokens of *if*, 4 of *when* and 20 of *wenn*.

All examples containing either of the above subordinators in the whole corpus are grammatical according to the rules of both languages.

5.4. Subordinator *wie* (*when*)

Finally I would like to look at some monolingual examples containing the German subordinator *wie*, which illustrate some of the major tendencies in ‘Emigranto’. Consider (24) produced by speaker D.

- (24) Wie ich jünger war und ich hab gearbeitet, hab’ ich müssen Englisch reden¹⁴.
When I younger was and I have worked, have I had English speak.

¹² Quiz is an established loanword in German which is further supported by its integration into the German gender and case system in this example.

¹³ This *if*-clause may also be analysed as a tag (Poplack, 1980), which makes it even less prominent as a code-switch.

¹⁴ The main clause would be grammatical according to Austrian German, if the auxiliary *müssen* was in final position.

In the above example we see two conjoined subordinated clauses, one with the ‘dependent’ verb in grammatical second position. The second ‘dependent’ auxiliary, however, is once again in ungrammatical second position. There seems to be no other way of interpreting (24) than G3 applies to the first ‘dependent’ verb but not to the second.

German allows a rather striking variation for the order of a verb’s complements and adjuncts. This phenomenon is generally referred to as ‘scrambling’ in the literature (Haegemann, 1992: 534ff). German, however, does not allow the following examples which are reminiscent of (21) above.

- (25) D: Ich hab’ erzählt wie wir waren in xxx zusammen
I have told when we were in xxx together
 und wie wir da gesessen sind im Bad.
and when we there sat (have) in the lido.

In the first sentence the finite ‘dependent’ verb is in V2 and the complement *in xxx* is ungrammatically extraposed. The ordering of the non-finite and the finite ‘dependent’ verb in the second sentence is grammatical according to G2 and G3, as would be the whole clause if the adjunct *im Bad* was not tagged on. *There* and *in the lido* are coreferential and, as in example (21), the speaker seems to realise that ‘she has forgotten something’ and adds the relevant information in ungrammatical position at the end of the clause. The same mechanism is at work in example (26) by speaker M.

- (26) ...wie ich da war # vorigen Montag.
when I there was # last Monday

The short pause before the time adverbial seems to lend support to interpreting the above example of excessive scrambling as a repair mechanism.

An alternative interpretation would be to assume the speakers make language specific decisions for every single dependency relation. The place adverbial *there* in (26) would then be placed according to the rules of German and the time adverbial according to the rules of English. We can apply the same interpretation to example (25) above.

Ungrammatical extraposition is relatively frequent in the whole data set. Speaker D produces a total of 19, speaker M five, and speaker T three tokens. Speaker T furthermore produces two code-switched examples with ungrammatically extracted adverbials. All this evidence suggests speakers of ‘Emigranto’ take extraposition and scrambling beyond what is considered grammatical in the respective monolingual grammars.

6. Conclusions

Word Grammar has not been used for analysing code-mixed discourse so far. This pilot-study shows that WG is hypothesis generating, that a corpus of intra-sentential code-switching can be consistently analysed within this framework, and that the hypotheses can be tested. Word Grammar therefore proves to be a suitable grammatical theory for the study of code-mixing with the advantages, some of them controversial, stated in section 3.

The null-hypothesis is borne out for mixed dependencies, i.e. every word in all mixed dependencies satisfies the constraints imposed on it by its own language. All dependency relations between two words from English and German or German and English are grammatical according to the rules of these two languages. There are no special code-switching constraints *but* ‘Emigranto’ has clearly developed some parochial conventions. They do not apply to all tokens of construction types analysed but appear as tendencies, i.e. there is sociolinguistic variation in code-mixed discourse but no evidence for universal constraints.

The most widespread tendency is V2 word order in subordinate clauses. Especially in code-mixed examples, but also –to a lesser degree– in monolingual German, rule G2, which should block the default rule G1, does not apply. This generates subordinate clauses with V2 instead of verb final word order in German subordinate clauses. Verb second position for all clause types seems to be more acceptable in ‘Emigranto’ than in Standard German.

Among the translation equivalents *because* and *weil*, speakers of Emigranto favour the English subordinator when in code-switching mode. Since *because* is an English subordinator, it is E2 and not G3 that applies to it, which renders all the code-mixed examples involving this particular subordinator grammatical. Speaker D also seems to prefer the German subordinator *wenn* to its English counterpart *if* when in mixing mode.

The rules for verb + particle ordering in German seem to have been relaxed in ‘Emigranto’. No clear pattern emerged for the examples studied. This might be due to the link between verb + particle ordering and the tendency to over-generalize V2 order.

Speakers of ‘Emigranto’ take scrambling a step further than German monolinguals. This also holds true for verbs’ complements that are generally assumed to resist extraposition in German.

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