

## On L2 English transfer effects in L3 syntax

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### Abstract

This article focuses on the acquisition of L3 German by high school learners whose L2 is English. The main aim is to study the possible influence of English as an L2 on the acquisition of word order in L3 German in light of proposals along Minimalist lines (Chomsky 1995; Zwart 1997ab). Taking into account the description of parameters in terms of feature strength within the Minimalist Program, the hypothesis is entertained that there would be transfer of the value of feature strength under functional categories from the L2 to the L3. In order to test this hypothesis, written production data and grammaticality judgements have been collected from two groups of participants who learn German as L3 and from one control group with L2 German. The results do not support the hypothesis of L2 transfer at the syntactic level. However, evidence has been found of optional movements of the verb and the object, as reported in previous studies by Beck (1998). This optionality will be explained by the underspecification of feature values under functional categories.

**Keywords:** L3 acquisition, optionality, strength features, transfer, variability, verb movement parameter.

### Resumen

Este trabajo gira en torno a la adquisición del alemán como L3 por parte de estudiantes de secundaria cuya L2 es el inglés. Nuestro principal objetivo es estudiar la posible influencia del inglés como L2 en la adquisición del orden de palabras del alemán como L3 a la luz de propuestas minimalistas (Chomsky 1995; Zwart 1997ab). Teniendo en cuenta la descripción de los parámetros en términos de fuerza de los rasgos que hace el Programa Minimalista, formulamos la hipótesis de la posible transferencia del valor de fuerza de los rasgos bajo los núcleos funcionales de la L2 a la L3. Con objeto de investigar esta hipótesis hemos administrado una prueba de producción escrita y una prueba de juicios de gramaticalidad a dos grupos que aprenden alemán como L3 y a un grupo de control que aprende alemán como L2. Los resultados no apoyan la hipótesis de transferencia de la L2 a nivel sintáctico. Sin embargo, hemos encontrado evidencia de movimientos opcionales del verbo y

del objeto como los hallados en estudios tales como Beck (1998). Esta opcionalidad será explicada por la falta de especificación del valor de los rasgos bajos los núcleos funcionales.

**Palabras clave:** Adquisición de L3, opcionalidad, rasgos de fuerza, transferencia, variabilidad, parámetro de ascenso verbal.

## 1. Introduction

Some investigations provide evidence of first language (L1) properties in the Interlanguage (ILG) grammar of initial states of acquisition (Eubank 1993/94; Vainikka and Young-Scholten 1994, 1996; Schwartz and Sprouse 1994, 1996). However, there are comparatively few data on the effects of a second language (L2) on the learning of a third language (L3) (Hufeisen 2000).

This article presents evidence from grammaticality intuitions of foreign language learners about the verb raising parameter in German and considers the proposals presented in Chomsky's (1995) Minimalist Program (henceforth, MP), thus allowing the interpretation of data from the acquisition of German as an L3 in the light of this theoretical approach. The data collected from participants whose L1s are Spanish or Basque, English as L2 and German as L3 illustrate the inexistence of transfer of L2 English at a syntactic level. It is shown that there are problems associated with the acquisition of this parameter in German and it is concluded that the learners' Interlanguage displays optionality of verb movement as reported by Beck (1998). This optionality could be explained by the underspecification of feature values under functional categories.

The paper is organized as follows: Section 1 provides some background information about transfer in L3 acquisition. Section 2 deals with the syntax of the German sentence and the analysis proposed within the MP, specifically, J. W. Zwart's studies (1997ab). Section 3 focuses on some of the better known studies on the acquisition of verb raising parameter in the literature to date. Section 4 presents the predictions of this paper. Section 5 describes the study. Section 6 presents the results obtained by means of a grammaticality judgement task which will be discussed taking into account Zwart's analysis of the German sentence and the application of this model to the acquisition of German as an L2 (Grümpel, 2000). The final section concludes with some observations on the role of optionality in the ILG of L2 learners.

## 2. Transfer in third language acquisition: from L2 English on L3 German

The phenomenon of language transfer has mostly been investigated with reference to L1 and L2. Less attention has been paid to studies dealing with transfer from the L2 to other languages. Some studies have addressed the influence of English as L2 on the learning of L3 German (Welge (1987); Vogel (1992)). Both authors argue for transfer of English at a syntactic level. Welge analyses a corpus of errors from his lectures and from lectures of other colleagues. The subjects of his study (L1 Chinese, L2 English and L3 German) produce errors such as the ones shown in (1) and (2), which illustrate the placement of a frequency adverb in front of the verb and the production of an SVO order after a prepositional phrase, as in English:

- (1) a. *\*Er immer trainiert auf dem Sportplatz*  
 [he always trains on the sports center]  
 'He always trains in the sports center'
- b. *Er trainiert immer auf dem Sportplatz*  
 [he trains always on the sports center]  
 'He always trains in the sports center'
- (2) a. *\*In China, die Leute sprechen Chinesisch*  
 [in China the people speak Chinese]  
 'In China, people speak Chinese'
- b. *In China sprechen die Leute Chinesisch*  
 [in China speak the people Chinese]  
 'In China, people speak Chinese'

Vogel (1992) analyses data from conversations with a student of computer science whose L1 is Chinese, whose L2 is English and whose L3 is German. One of the pieces of evidence given by this author to support the hypothesis of the influence of English as L2 is the production of the infinitive after the modal auxiliary, such as in (3):

- (3) a. *\*Ich denke I can sprest ein bisschen Deutsch*  
 [I think I can speak a little bit German]  
 'I think I can speak a little bit of German'

- b. *Ich denke, ich kann ein bisschen Deutsch sprechen*  
 [I think I can a little bit German speak]  
 'I think I can speak a little bit of German'

Finally, studies carried out by Hakansson, Pienemann and Sayehli (2002) claim there is no influence of L2 English. They analyse oral production of L3 German by Swedish-speaking learners and focus on the acquisition of the V2 phenomenon. They propose the hypothesis that there could be influence of Swedish when the students faced inversion structures. The results obtained show there is no influence of Swedish since the learners produce the SVO order instead of the VSO order in clauses which start with an adverb or a prepositional phrase. They also think that the phenomena observed are not due to the transfer of English either, contrary to authors such as Naumann (1997) who have suggested that possibility.

This section has looked at the role of transfer on L2 and L3 acquisition with special reference to studies dealing with the influence of English as L2 on the learning of L3 German.

### 3. The German sentence and some possible analyses

In German three different word orders can be distinguished: SVO, SOV and VSO. The SVO order is typical of the main sentence. German is a V2 language, that is, a language which requires the finite verb to remain in the second position, as in (4):

- (4) *Ich nehme oft das Auto* vs. \**Ich oft nehme das Auto*.  
 [I take often the car] vs. [I often take the car]  
 'I often take the car'

The SOV order appears in subordinate clauses, as can be observed in (5):

- (5) *Weil ich ein neues Auto habe, bin ich froh*.  
 [because I a new car have am I happy]  
 'I am happy because I have a new car'

The VSO order is featured in sentences which start with an adverb, a subordinate clause, an object or a prepositional phrase, such as (6):

- (6) *Montags kaufe ich die Zeitung*.  
 [Mondays buy I the newspaper]  
 'On Mondays, I buy the newspaper'

With respect to coordinate clauses, SVO is the default order after the coordinating conjunction, as illustrated in (7):

- (7) *Ich bin müde, aber ich gehe ins Kino.*  
 [I am tired but I go to the cinema]  
 'I am tired but I am going to the cinema'

German has been classified as a head final language (SOV) by authors such as Koster (1986) or Den Besten (1989). The other possible orderings, namely, SVO and VSO, would be derived from this underlying construction. Zwart (1997ab) proposes another word order analysis within an MP framework (Chomsky 1995) and adopts Kayne's (1994) idea that movement is to the left, even in SOV languages. Contrary to previous analyses of the German sentence and taking into account Platzack's Hypothesis of Initial Syntax, according to which SVO seems to be the first order to be acquired in any language, he establishes a difference between the analysis of the SVO sentence and the inversion structure (VSO). He provides three pieces of evidence to support this analysis. First, he points out that lexical and functional projections are head initial and not head final as it should be if German were SOV. Second, the existence of agreement between the complementizer (C) and the verb in both embedded and inversion constructions in certain Continental West Germanic dialects. According to previous analyses, the verb remained at the end in subordinate clauses due to the existence of an explicit C which prevents movement of agreement features. As shown in (8) and (9), agreement features move to C in subordinate clauses and inversion constructions:

- (8) *damid-sd kommsd* (Munich Bavarian)  
 [so that (2<sup>nd</sup> P.SG) come]  
 'so that you come' (Zwart, 1997a:138)

- (9) *Speule wy?*  
 [play we]  
 'Do we play?' (Zwart, 1997b, page 195)

Third, Zwart shows examples from Dutch in which the verb cannot move to C in subject-initial main clauses, as in (10). If the complementizer agreement forms in (8) and (9) are indicative of the verb being in C, the verbal agreement form in (11) suggests that the verb is lower than C:

- (10) \**Kust Jan Marie*  
 [kisses Jan Marie]  
 'Jan kisses Marie'

- (11) *Jan kust Marie*  
 [Jan kisses Marie]  
 'Jan kisses Marie'

In Germanic languages such as German or Dutch, with asymmetry between the main sentence and the subordinate clause, sentences with orders SOV and VSO derive from the canonical order SVO applying the rules [ $\pm$  movement of the verb] and [+movement of the object]. According to Zwart (1997ab), the reason to consider German or Dutch as SVO languages lies in the fact that there is plenty of evidence to argue that their lexical projections pattern as in head initial languages such as English. In (12) and (13) it can be observed that determiners precede noun phrases and that complementizers are clause initial in German and Dutch, respectively:

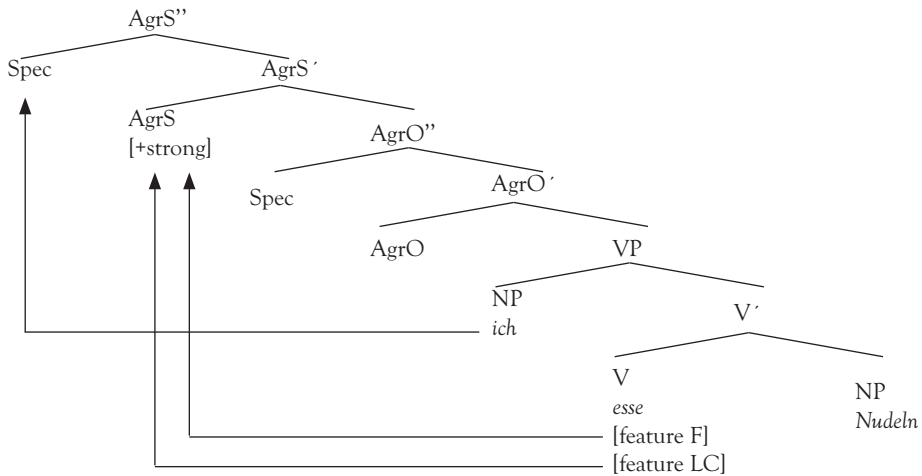
- (12) a. *Der NP[Mann]*  
 [the man]
- b. *\*NP[Mann] der*  
 [ man the]
- (13) a. *Dat [AgrSP het regent]*  
 [that it rains]
- b. *\*[AgrSP het regent] dat*  
 [ it rains that]

Zwart (1997ab) makes use of the principle of economy and the checking theory proposed in the MP. For this author, lexical elements are bundles of features to be spelled out in a postsyntactic component called Morphology. Morphology is unable to spell out formal features (F-features) that are not part of a morphosyntactic complex containing lexical-categorical features (LC-features). Overt movement is a combination of F (formal features of person and number)-movement and LC-feature movement. Any movement for feature checking purposes is F-movement. LC-movement takes place as a Last Resort movement in order to create a morphosyntactic complex containing both F-features and LC-features.

For Zwart (1997ab), in independent clauses such as (14), the verb (V) features of Subject Agreement (AgrS) are strong and attract the F-feature of the verb. The F-features of the verb move to AgrS. In order to make a morphosyntactic complex interpretable for Morphology, the LC-features of the verb move and adjoin to AgrS. The verb therefore is spelled out in AgrS. Please, notice that the CP level has been removed from Grümpel’s tree representation, taking into account that Zwart (1997a) argues that this level is not projected in independent clauses, and as a result, AgrS to C movement does not take place:

- (14) a. *Ich esse Nudeln*  
 [I eat pasta]  
 “I eat pasta”

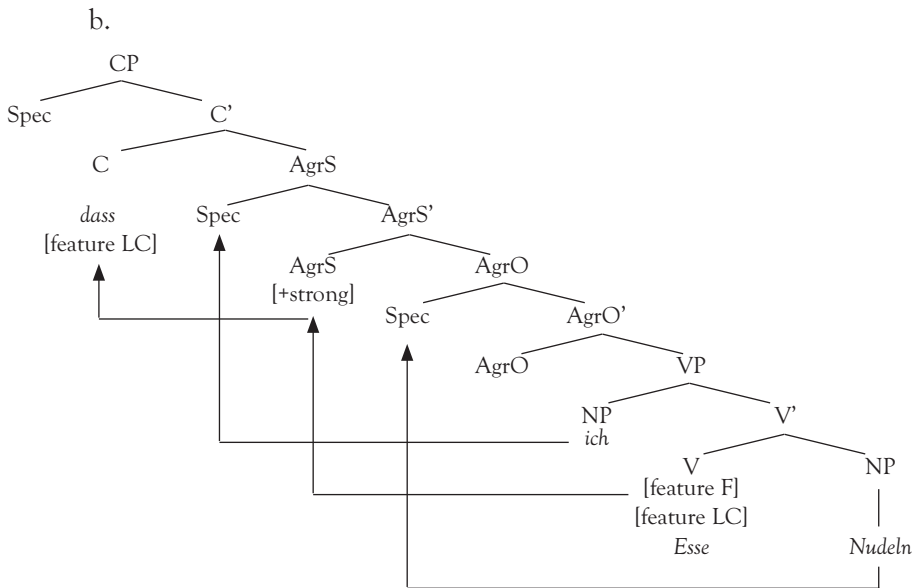
b.



(Grümpel, 2000: 89, example 9 b)

In embedded clauses as in (15), the V features of AgrS are strong and attract the F-feature of the verb. AgrS (containing the F-features of the verb) moves on to Complementizer (C). Since C is lexically filled, the F-features of the verb are united with the LC-features of the C. There is no need for movement of the LC-features of the verb to C, since C has the required LC-features and can be interpreted by Morphology. The verb therefore gets spelled out in V:

- (15) a. *Dass ich Nudeln esse*  
 [that I pasta eat]  
 “that I eat pasta”

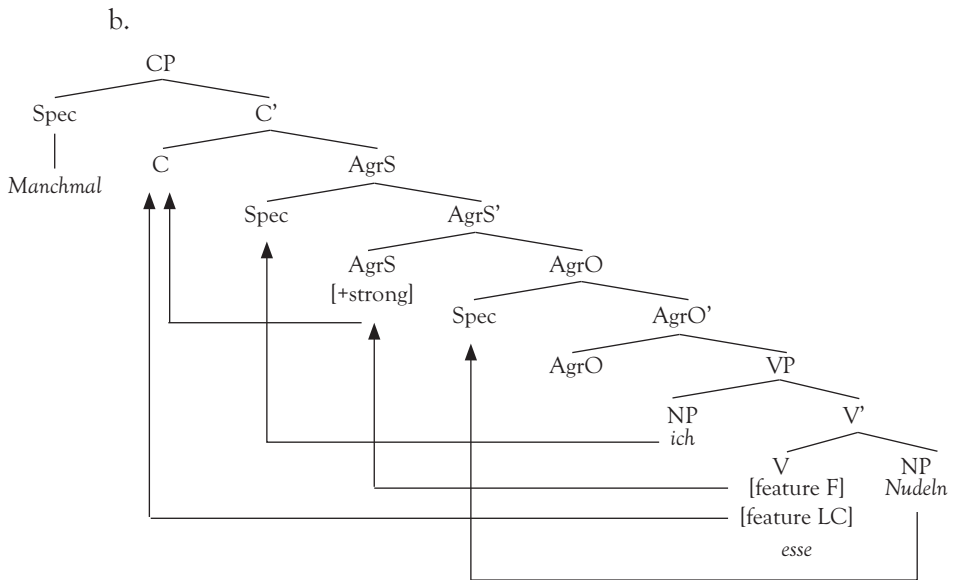


(Grümpel, 2000: 88, example 9 a)



In inversion constructions as in (16), the CP level is projected, and therefore AgrS (containing the F-features of the verb) moves on to C. However, since C is not lexically filled (there is no complementizer in inversion constructions), the LC-features of the verb must move in order to be an interpretable object for Morphology:

- (16) a. *Manchmal esse ich Nudeln*  
 sometimes eat I pasta  
 ‘Sometimes I eat pasta’



(Grümpel, 2000:90, example 9 c)

In this section Zwart’s analysis of the German sentence has been discussed and the derivations corresponding to independent clauses, inversion structures and subordinate clauses have been presented.

#### 4. L2 acquisition studies and the verb raising parameter

One of the most discussed parameters in the L2 acquisition literature to date is the Verb Movement Parameter (Ayoun 1999/2000). The main goal of the studies which deal with this parameter is investigating whether or not L2 learners can reset it (which depends on feature strength of the functional category Agreement). The three most influential proposals to explain the phenomenon have been the Full Transfer/Full Access (FT/FA) model (Schwartz and Sprouse 1994, 1996), the Minimal Trees (MT) Hypothesis (Vainikka and Young-Scholten 1994, 1996) and the Valueless Features (VF) (Eubank 1993/94). According to the FT/FA, there is transfer of lexical and functional categories (with their features and feature strength) at the initial state of L2 acquisition. With respect to the Verb Movement Parameter, the researchers assuming FT/FA claim that this is reset at advanced stages of acquisition due to full access to UG. In contrast to FT/FA, the MT model proposes that only lexical categories are transferred from the L1 and there is optional verb movement at intermediate stages of acquisition. Finally, for the VF Hypothesis, there is transfer of L1 lexical and functional categories but features are inert, namely, features associated with a functional head do not have any value or strength, hence the term “valueless features”. With regard to verb movement, it is optional at the initial state.

In contrast to these hypotheses, Beck (1998) proposes the Local Impairment Hypothesis, whereby inert features are not just a property of early grammars; rather, feature strength is never acquirable on this view. As a result, verb movement is optional not only at intermediate stages but also at advanced stages of acquisition. Apart from that, feature values are inert regardless of their value in the L1 and the L2. Even if both the L1 and the L2 have strong features, variability is predicted in L2 acquisition.

As Eubank (1993/94) or Beck (1998ab), authors such as Papp (2000), Sorace (2003) or Klein and Casco (1999) consider the issue of optionality. For Papp (2000) and Sorace (2003), L2 optionality is different from L1 optionality in at least three respects: (i) L2 learners have the L1 as an additional source of optionality, (ii) L2 optionality tends to persist at advanced competence levels and (iii) residual optionality is found at ultimate L2 attainment. The persistence of optionality at advanced stages of development is a consequence of the fact that L2 learners may not be exposed to data that are robust and/or frequent enough to expunge one of the optional variants from the grammar. For Klein and Casco (1999), the optionality attested in L2 acquisition may just be another stage in the acquisition of L2.

Optional movements of the verb are also reported in recent studies (Grümpel, 2000, Leung, 2006, among others). Grümpel (2000) analyses the acquisition of the verb raising parameter by eight Spanish-speaking adults who learn German in an institutional context taking into account Zwart's analysis of the German sentence within the MP. She gathered longitudinal data by means of a written composition, grammaticality judgements and a translation task from Spanish into German and reaches the conclusion that optional verb movements still exist even in the more advanced group of learners. More recently, Leung (2006) has looked at the role of transfer in non-native language acquisition by investigating the status of past tense and agreement features as well as a property related to the feature strength of Tense (i.e. adverb placement) at early stages of L1 Vietnamese-L2 French and L1 Cantonese-L2 English-L3 French interlanguage grammars. Group results and individual results on four written experimental tasks (two production and two judgements) reveal that transfer differs across different properties and different individual learners. Leung also contends that the variability observed in some of the L3 learners could demonstrate residual L2 effects, that is, the L2 strength value (e.g. weak feature strength of English) is in competition with L3 input (e.g. strong feature strength of French).

## 5. Predictions

Previous sections have looked at how there could be influence of an L2 on the learning of an L3. According to Vogel (1992), Welge (1987), among others, there is transfer of English at the grammatical level, such as in the following examples (see also example (2) from Welge (1987)). In this example, it can be observed how learners produce the SVO order after a prepositional phrase, contrary to the native German construction in which there is inversion of the subject due to the V2 phenomenon:

- (17) a. \**In China die Leute sprechen Chinesisch*  
           [in China the people speak Chinese]  
           'In China people speak Chinese'
- b. *In China sprechen die Leute Chinesisch*  
           [ in China speak the people Chinese]  
           'In China people speak Chinese'

As indicated above, three models have discussed the issue of transfer during the acquisition of verb movement in the L2. These include the FT/FA model of Schwartz and Sprouse (1994, 1996), the MT model of Vainikka and Young-Scholten (1994, 1996) and the VF of Eubank (1993/94). Notice that in this article I assume

that the three models do not predict precisely whether an L2 would transfer to the L3. In other words, the three models allow for the possibility that either the L1 or the L2 would transfer when learning an L3 (Leung, 2006). On the other hand, I am aware that these models are only applied to the initial state.

### 5.1. FT/FA

- i. In the case of L1 transfer from Basque or Spanish, Agr will be present and there will be transfer of feature strength. Basque and Spanish have strong features in Agr and for this reason, VSO should occur after a prepositional phrase in German.
- ii. In the case of L2 transfer from English, there will be transfer of weak features and an SVO order is predicted after a prepositional phrase.

### 5.2. MT

According to the MT, functional elements are absent in the L2. Therefore, there can't be transfer of feature strength. An SVO order is predicted due to surface transfer (from Spanish or English) and an SOV order is predicted (from Basque).

### 5.3. VF

- i. In the case of L1 transfer from Basque or Spanish, there will not be transfer of feature values since functional feature strength is argued to be universally "inert", leading to variable word order.
- ii. In the case of L2 transfer from English, word order will be variable since feature strength is inert.

## 6. The study

German is a typical L3 in Europe. It is seldom learnt as an L2, that is, students begin studying German after having already learnt another foreign language, very often English (Hufeisen, 2000). This is usually the case in Spain.

The experiment was carried out in an institutional context. Data have been gathered from two groups of adolescents who are in their fourth year of secondary education in schools in the Basque Autonomous Community (B.A.C.) and who are learning German as an L3 after English. These data have been compared to data from a control group whose L1 is Spanish and who are learning German as L2.

## **6.1. The subjects**

### **6.1.1. Group I**

Group I was made up of twelve 15 to 16-year-old subjects who were studying German as an L3. They were first exposed to German when they were 12. They are in their 4<sup>th</sup> year of secondary education and they belong to Model A. In this model, Basque is taught as a second language for three hours a week. This model provides minimal instruction and, thus, minimal proficiency in Basque as a second language (Cenoz, 2005). The subjects of Group I have been learning English for nine years and at the moment of testing, this language was taught as a compulsory subject three hours a week. German was an optional subject which was taught two hours a week.

### **6.1.2. Group II**

Group II consisted of twenty 15-16 year old subjects who were studying German as an L3. As Group I, they were first exposed to German when they were 12. They are in their 4<sup>th</sup> year of secondary education and they belong to Model D. In Model D, Basque is the language of instruction and Spanish is taught as a subject for four to five hours a week. This model was originally created as a language-maintenance program for native speakers of Basque, but currently also includes a large number of students with Spanish as their L1 (Cenoz 2005). In the present study, five students out of 20 who belong to Group II have Basque as L1, 12 speak Spanish as L1 and three have Basque and Spanish as L1. As in Group I, the students of Group II have been learning English for nine years.

### **6.1.3. Control group**

It was decided to administer the tasks to a control group who were exposed to German as an L2 in an institutional setting. The controls were thirteen 9-10-year-old students of 4<sup>th</sup> year of primary school. They were younger than the subjects of Group I and II but the proficiency in German was similar, considering the results of the proficiency tests the participants took. Their mother tongue was Spanish and they had not been exposed to training in English before. The language of instruction was German and all of them have been learning the German language for six years. Spanish was taught seven hours a week.

Table 1 displays the details of the subjects in the study:

**Table 1.** The subjects

<b>Group I</b>		
Model A, L1: Spanish, L2: English, L3: German	Age	Years / hours a week of exposure to German
4 <sup>th</sup> year secondary education. (n=12)	15-16 years	4 years / 2 hours
<b>Group II</b>		
Model D, L1: Basque, Spanish, Spanish and Basque, L2: English, L3: German	Age	Years / hours a week of exposure to German
4 <sup>th</sup> year secondary education. (n=20)	15-16 years	4 years / 2 hours

<b>Control Group</b>		
L1: Spanish, L2: German	Age	Years / hours a week of exposure to German
4 <sup>th</sup> year primary school (n=13)	9-10 years	6 years / 18 hours

## 6.2. Materials

The participants responded to two written elicitation tasks in the following order: a written production task and a grammaticality judgement task. The tasks were chosen following the trend in applied linguistics of using different research instruments in order to triangulate data. Besides, both tasks complemented each other since one task covered the production area and the other one the reception area. In a written production task, learners normally use the structures with which they feel more comfortable and the structures under study are sometimes not present. That is the reason for the decision to include a grammaticality judgement task.

Prior to the administration of the tasks in this study (written production and grammaticality judgements), all the participants filled in a questionnaire about the academic background and previous linguistic knowledge, and they took proficiency level tests in English and German.

The written production task was a composition with the title *Was hast du heute gemacht?* ‘What have you done today?’. Subjects were asked to write 20-30 lines on this topic. This task aimed to see how subjects used the different orders of the German sentence.

The grammaticality judgement task consisted of 81 items, out of which 38 were distracters. Sentences with the orders SVO, SOV, VSO and coordinate sentences were included. The distribution of items was as follows:

**Table 2.** Distribution of items

10	SVO
11	XVSO
14	Coordinate sentence
8	Subordinate sentence
43	TOTAL

In this task, the learners were presented with a correct sentence and two incorrect sentences. These sentences were presented at random, so that students did not find the same sentence type on the same page.

## 7. Results and discussion

Due to space constraints, this section only presents the results of the grammaticality judgement task, which will be discussed taking into account Zwart's analysis of Germanic languages such as Dutch or German and the application of this proposal to L2 German acquisition (Grümpel, 2000). Table 3 shows the results obtained by Group I in this task:

**Table 3.** Grammaticality judgements. Group I

	Correct judgements	Incorrect judgements	Total	Correct %	Incorrect %
Main clause SVO	96	21	117	96/117 82,1%	21/117 17,9%
Inversion VSO	88	40	128	88/128 68,8%	40/128 31,2%
Coordinate sentence	108	66	174	108/174 62,1%	66/174 37,9%
Subordinate clause	64	29	93	64/93 68,8%	29/93 31,2%
TOTAL	356	156	512	356/512 69,5%	156/512 30,5%

The grammaticality judgements have been divided into four types: main sentence with initial subject (SVO), main sentence with subject inversion (XVSO), coordinate sentence and subordinate clause.

The following generalizations can be drawn from the non-native structures accepted in the grammaticality judgement task. The following generalizations apply to Group I:

- a. Overgeneralization of SOV to constructions requiring SVO in native German
- b. \*adv SVO is accepted for those sentences which require the inversion of the subject
- c. Overgeneralization of SOV to structures which demand VSO

- d. SVO is accepted after COMP
- e. VSO is accepted after COMP
- f. [LC] features are attributed to the coordinating conjunction
- g. VSO is accepted after the coordinating conjunction

Overgeneralization of the SOV order has been observed in constructions which require SVO and VSO in native German. In the case of overgeneralization of SOV to SVO, the learners extend the object movement rule to the main sentence without applying verb raising. That is, they apply the rules of [- movement of the verb] and [+movement of the object] (typical of the subordinate clause) to the main sentence, as can be observed in (18):

- (18) \**Das Kind der Mutter das Buch gegeben hat.*  
 [the boy the mother the book given has]  
 'The boy has given the book to his mother'

Additionally, there is an overgeneralization of SOV to VSO. The students apply the rule [+movement of the object] when they overgeneralize the order of the subordinate clause because of the fact of having an initial element which they seem to identify as C, as illustrated in (19):

- (19) \**Heute Peter seiner Freundin die Uhr gezeigt hat.*  
 [today Peter his girlfriend the watch shown has]  
 'Today Peter has shown his girlfriend the watch'

The structures which require VSO feature many mistakes. We have to remember that the VSO order in German requires two movement rules: movement of verbal feature [F] and movement of feature [LC] to C. Feature [F] of the verb is attracted by AgrS [+strong] and goes on to C, where the verb is lexicalized due to the movement of the [LC] feature of the verb. The lack of the VSO order is explained either by an SVO order, that is, the initial order is not altered, or by an overgeneralization of the SOV order, as shown in (20) and (21):

- (20) \**Heute der Freund schenkt der Freundin einen Ring.*  
 [today the friend gives the girlfriend a ring]  
 'Today the friend gives a ring to his girlfriend'

- (21) \**Heute Peter seiner Freundin die Uhr gezeigt hat.*  
 [today Peter his girlfriend the watch shown has]  
 'Today Peter has shown the watch to his girlfriend'



In (20), there seems to be an impairment in the interpretation of the feature [+strong] of AgrS, which prevents the movement of the feature [F] to C and the last resort movement of the feature [LC] of the verb. Therefore, the verb cannot be lexicalized in an initial position after the adverb or another lexical element in a topic position. In (21), in the case of overgeneralization of SOV, the learners apply the rule [+movement of the object] typical of the subordinate clause. They seem to identify the initial element as a complementizer.

The non-native constructions with the SOV order are attributed to a lack of the rule [+movement of the object] and, then, SVO is adopted after C as in (22):

- (22) \**Weil ich habe ein neues Auto, ich bin froh.*  
 [because I have a new car I am happy]  
 ‘I am happy because I have a new car’

The participants also accept VSO after the C as illustrated in (23). The [F] verbal feature of the verb raises correctly to C, but they also raise the [LC] feature of the verb erroneously because they don’t interpret the feature [LC] of the C. Therefore, the verb is lexicalized in C and not in situ, as in the case of native German. However, the rule [+movement of the object] is applied correctly, as given in (23):

- (23) \**Wenn einkaufen geht meine Mutter, braucht sie Geld.*  
 [when shopping goes my mother needs she money]  
 ‘When my mother goes shopping, she needs money’

The rate of incorrect judgements in coordinate sentences is due to the fact that the [LC] features which belong to C are attributed to the coordinating conjunctions. Consequently, the learners have the intuition of [-movement of the verb], as shown in (24):

- (24) \**Ich gehe jetzt ins Bett, oder ich das Fußballspiel sehe.*  
 [I go now to bed or I the football match see]  
 ‘I go to bed now or I watch the football match’

Besides, there have been some interpretations of the coordinating conjunction as adverbial material. Inversion is applied as if *aber* ‘but’, *und* ‘and’, *oder* ‘or’ were adverbs in topic position, as illustrated in (25):

- (25) \**Er hat gearbeitet und hat sie geschlafen.*  
 [he has worked and has she slept]  
 ‘He has worked and he has slept’

In general, the learners have intuitions of these structures because all of them are present in their ILG and are accepted to a great extent. The correct judgements rate is over 60%. The structure which causes more problems is the coordinate sentence, followed by VSO and SOV. The SVO order presents the least amount of problems. As Zwart (1997ab) and Kayne (1994) have pointed out, SVO is the unmarked order and the underlying order in all languages. Our learners seem to depart gradually from this order and incorporate the marked structures. The orders SOV and VSO show nearly the same rate of correct judgements (VSO with 68.7% and SOV with 68.8%), so that the learners seem to have the same intuitions for these structures.

Table 4 shows the results obtained by Group II in this task:

**Table 4.** Grammaticality judgements. Group II

	Correct judgements	Incorrect judgements	Total	Correct %	Incorrect %
Main clause SVO	159	40	199	159/199 79,9%	40/199 20,1%
Inversion VSO	151	67	218	151/218 69,3%	67/218 30,7%
Coordinate sentence	201	77	278	201/278 72,3%	77/278 27,7%
Subordinate clause	127	33	160	127/160 79,4%	33/160 20,6%
TOTAL	638	217	855	638/855 74,6%	217/855 25,4%

With regard to Group II, the same generalizations can be established as for Group I.

When contrasting data from Group I and Group II in the grammaticality judgement task by means of a two-sample binomial test, no statistically significant differences have been observed ( $t=0.6446$ ;  $p\text{-value}\approx 0.2596$ ). Furthermore, the same typology of errors for both groups has been found.

Table 5 shows the results obtained by Group III in this task:

**Table 5.** Grammaticality judgements. Control group.

	Correct judgements	Incorrect judgements	Total	Correct %	Incorrect %
Main clause SVO	107	23	130	107/130 82,3%	23/130 17,7%
Inversion VSO	100	42	142	100/142 70,4%	42/142 29,6%
Coordinate sentence	138	34	172	138/172 80,2%	34/172 19,8%
Subordinate clause	61	43	104	61/104 58,7%	43/104 41,3%
TOTAL	406	142	548	406/548 74,1%	142/548 25,9%

The same generalizations can be established for groups whose L3 is German apply for Group III.

Moreover, no statistically significant differences have been observed between Groups I and II vs. the Control Group (Group I vs. Group III  $t=1.648955$ ,  $p\text{-value}\gg 0.0496$ ; Group II vs. Control Group ( $t=0.2229$ ,  $p\text{-value}\gg 0.5881$ ).

Turning back to my hypothesis, it was proposed that there would be transfer of the weak feature of AgrS of English to German and as a result, the SVO order would be produced and accepted after an adverb or a prepositional phrase in first position by the experimental groups. According to the results, this is not supported since the SVO order after the adverb is also accepted by subjects in the Control Group who have never received exposure to English. Apart from that, the SOV order is also accepted after the adverb by the experimental and control groups, as exemplified in (26):

- (26) \**Heute Peter seiner Freundin die Uhr gezeigt hat*  
 [today Peter his girlfriend the watch shown has]  
 ‘Today Peter has shown the watch to his girlfriend’

This type of error cannot be due to the influence of Spanish either, since this order is not grammatical in Spanish. However, this sequence is grammatical in Basque, as illustrated in (27):

- (27) *Igandeetan Maier jaunak liburu berriak ekartzen dizkigu*  
 [Sundays Maier Mr. books new bring hat]  
 ‘On Sundays, Mr. Maier brings us new books’

It could be claimed that there is influence from Basque. Nevertheless, this order is accepted not only by the participants whose mother tongue is Basque but also by the participants whose mother tongue is Spanish and they have no knowledge of Basque, that is, participants in the Control Group. In addition, the same typology of errors has been observed for the three groups and no statistically significant differences were found among the three groups.

In section 4 different predictions were made taking into account three models which have discussed the issue of transfer in the acquisition of verb movement in the L2. According to the FT/FA, VSO should always occur after a prepositional phrase in German due to transfer of strong features from the L1 (Spanish and Basque). Our results do not support the FT/FA model since the learners produce and accept not only the correct order VSO but also the incorrect orders SVO and SOV. In the case of L2 transfer from English, this model predicted transfer of weak features, and as a consequence, SVO should always be produced and accepted after a prepositional phrase in non-native German. The results do not support this model with respect to L2 transfer either.

Regarding the MT, functional elements are absent in the L2. Therefore, there can't be transfer of feature strength. An SVO order is predicted due to surface transfer (from Spanish or English) and an SOV order is predicted (from Basque). The results show the presence of the SVO and the SOV orders in the ILG of the experimental Groups I and II. But SOV is also accepted by the control group. In sum, MT is not supported either.

In the case of the VF model, word order will be variable in both experimental groups and in the control group due to the inertness of feature strength. Our results are compatible with the VF since there is evidence of word order variability in the ILG of these learners. Participants accept not only the native order VSO after the adverb but also the incorrect orders SVO and SOV, as observed in (28), (29) and (30), respectively:

(28) *Heute schenkt der Freund der Freundin einen Ring*  
 [today gives the friend the girlfriend a ring]  
 'Today the friend gives a ring to his girlfriend'

(29) \**Heute der Freund schenkt der Freundin einen Ring*  
 [today the friend gives the girlfriend a ring]  
 'Today the friend gives a ring to his girlfriend'

(30) \**Heute der Freund der Freundin einen Ring schenkt*  
 [today the friend the girlfriend a ring gives]  
 'Today the friend gives a ring to his girlfriend'

Variability seems to be a universal phenomenon irrespective of L2/L3 learners' previous linguistic background contrary to the conclusion reached by Leung (2006) that the optionality observed in her data could demonstrate residual L2 effects: the L2 value (e.g. weak feature strength of English) is in competition with L3 input (which suggests strong feature strength in French). In this respect, I have provided evidence of word order variability in the ILG of learners whose L1 Spanish and L2 German (namely, the Control Group) have the same value of feature strength. The optionality attested in this study could be explained by the underspecification of feature values under functional categories since the learners do not show a preference for a particular order.

Hence, my results support the findings of Hakansson et al. (2002), since they also conclude that there is no transfer of English as L2 at the syntactic level. However, they don't support the claims by Vogel (1992) and Welge (1987), among others.

Similarly, the results of this study are quite consistent with previous research on word order phenomena (Beck 1998; Eubank 1993/94, Klein and Casco 1999, among others) since there is evidence of optional movements at intermediate stages of acquisition. As Herschensohn (2000) and Hertel (2003) have pointed out, variability seems to be an intermediate stage in the acquisition of an L2. The learners of the present study have lexical/functional categories and the strength features in their lexicons. But even if certain forms have been acquired, there may nevertheless be occasions when these are not accessible perhaps for processing reasons.

## 8. Conclusion

This article has focused on the grammaticality judgements of two groups of adolescents who learn German as an L3. The results of these two groups have been compared with the results of a control group who learns German as L2. The results of this study do not support the hypothesis of L2 transfer at the syntactic level. However, evidence of optional movements of the verb and the object has been found, as reported in previous work (Beck, 1998; Eubank, 1993/94; Grümpel, 2000; Leung, 2006, among others).

My study has shown that optionality is part of intermediate stages of acquisition. As Klein and Casco (1999) and Papp (2000) have pointed out, intermediate stages are characterized by variability and indeterminacy, and, for this reason, it would be interesting to obtain data from advanced stages of acquisition.

Finally, for future research, it would be interesting to conduct this investigation with a control group of native speakers of German and to collect oral data in order to corroborate the trend observed here. Apart from that, it would be worth investigating if the type of optionality/variability that has been observed in L3 German is also available in these subjects' L2 English grammars.

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## References

- Ayoun, D. 1999/2000. "Verb movement revisited: syntactic theory and language data". *Arizona Working Papers in SLAT* 7: 77-98.
- Beck, M. L. 1998. "L2 acquisition and obligatory head movement: English-speaking learners of German and the Local Impairment Hypothesis". *Studies in Second Language Acquisition* 20:311-348.
- Bouvy, C. 2000. "Towards the construction of a theory of cross-linguistic transfer". In J. Cenoz and U. Jessner (eds) *English in Europe: The Acquisition of a Third Language*. Clevedon: Multilingual Matters.
- Cenoz, J. 2005. "English in bilingual programs in the Basque Country". *International Journal of the Sociology of Language* 171: 41-56.
- Chomsky, N. 1995. *The Minimalist Program*. Cambridge: MIT Press.
- Den Besten, H. 1989. *Studies in West Germanic Syntax*. Doctoral Thesis. University of Tilburg.
- Eubank, L. 1993/94. "On the transfer of parametric values in L2 development". *Language Acquisition* 3: 183-208.
- Grümpel, C. 2000. *El Papel de los Principios de la Gramática Universal y de la Lengua Primera en la Adquisición del Orden de Palabras del Alemán por Adultos Hispanohablantes*. Unpublished PhD Thesis. Universidad Complutense, I.U. Ortega y Gasset. Madrid.
- Håkansson, G., M. Pienemann and S. Sayehli. 2002. "Transfer and typological proximity in the context of second language processing". *Second Language Research* 18 (3): 250-273.
- Herschensohn, J. 2000. "Generative theory. From Aspects to Minimalism". In J. Herschensohn (ed) *The Second Time Around*. Amsterdam: John Benjamins.
- Hertel, T. J. 2003. "Lexical and discourse factors in the second language acquisition of Spanish word order". *Second Language Research* 19 (4): 273-304.
- Hufeisen, B. 2000. "A European perspective: Tertiary languages with a focus on German as L3". In J. W. Rosenthal (ed) *Handbook of Undergraduate Second Language Acquisition*. Mahwah: Lawrence Erlbaum Associates.
- Kayne, R. 1994. *The Antisymmetry of Syntax*. Cambridge, MA: MIT Press.
- Klein, E. C. and M. Casco. 1999. "Optionality in English non-native grammars: Differences between L1 and L2 acquisition". In A. Greenhill et al. (eds) *BUCLD 23 Proceedings*. Somerville: Cascadilla Press.

Koster, J. 1986. *The Relation between Pro-drop, Scrambling, and Verb Movements*. Ms., University of Groningen.

Leung, Y. I. 2006. "Full transfer vs. partial transfer in L2 and L3 acquisition". In R. Slabakova, S. Montrul and P. Prévost (eds) *Inquiries in Linguistic Development: In Honor of Lydia White*. Amsterdam: John Benjamins.

Naumann, K. 1997. "Svenska som främmande språk i Schweiz [Swedish as a foreign language in Switzerland]". In G. Håkansson et al. (eds) *Svenskans Beskrivning 22*. Lund: Studentlitteratur.

Papp, S. 2000. "Stable and developmental optionality in native and non-native Hungarian grammars". *Second Language Research* 16 (2): 173-200.

Platzack, C. 1996. "The initial hypothesis of syntax: A Minimalist perspective on language acquisition and attrition". In H. Clahsen (ed) *Generative Perspectives on Language Acquisition*. Amsterdam: John Benjamins.

Schwartz, B. D. and Sprouse, R. 1994. "Word order and nominative case in nonnative language acquisition: A longitudinal study of (L1 Turkish) German Interlanguage". In T. Hoekstra and B. D. Schwartz (eds) *Language Acquisition Studies in Generative Grammar: Papers in Honor of Kenneth Wexler from the 1991 GLOW Workshops*. Amsterdam: John Benjamins.

\_\_\_\_\_. 1996. "L2 cognitive states and the Full Transfer/Full Access Model". *Second Language Research* 12: 40-72.

Sorace, A. 1985. "Metalinguistic knowledge and language use in acquisition-poor environments". *Applied Linguistics* 6 (3): 239-254.

\_\_\_\_\_. 2003. "Near-nativeness". In C. J. Doughty and M. L. Long (ed) *The Handbook of Second Language Acquisition*. Oxford: Blackwell.

Vainikka, A. and Young-Scholten, M. 1994. "Direct access to X-bar theory: Evidence from Korean and Turkish adults learning German". In T. Hoekstra and B.D. Schwartz (eds) *Language Acquisition Studies in Generative Grammar: Papers in Honor of Kenneth Wexler from the 1991 GLOW Workshops*. Amsterdam: John Benjamins

\_\_\_\_\_. 1996. "Gradual development of L2 phrase structure". *Second Language Research* 12: 7-39.

Vogel, T. 1992. "Englisch und Deutsch gibt es immer Krieg". *Zielsprache Deutsch* 23 (2): 95-99.

Welge, P. K. 1987. "Deutsch nach Englisch. Deutsch als dritte Sprache". In S. Ehlers and G.L. Kardener (eds) 1987 *Regionale Aspekte des Grundstudiums Germanistik*. München: Iudicium.

White, L. 1990/91. "The verb movement parameter in Second Language Acquisition". *Language Acquisition* 1: 337-360.

\_\_\_\_\_. 1991. "Adverb placement in second language acquisition: Some effects of positive and negative evidence in the classroom". *Second Language Research* 1 (2): 133-161.

Zwart, J. W. 1997a. *Dutch Syntax: A Minimalist Approach*. Dordrecht: Kluwer.

\_\_\_\_\_. 1997b. "The Germanic SOV languages and the Universal Base Hypothesis". In L. Haegeman (ed) *The New Comparative Syntax*. Harlow: Longman.