SYNTAX-DISCOURSE PROPERTIES OF PREFIELD CONSTITUENTS IN L2 GERMAN EXPOSITORY WRITING

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Abstract
This article investigates word order phenomena in nonnative German writing (L1 French, B1-B2 CEFR level). As a morphologically rich language, German allows for word order flexibility to adjust sentence production to discourse context. It follows from this that the sentence-initial position of V2 declaratives, also known as prefield, preferably accommodates constituents that establish a relation to preceding discourse. Drawing on the assumed challenge for learners to deal with constituent ordering at the crossroads between syntax and discourse, the paper presents an analysis of sentence prefields in L1 and L2 writing. Constituent types in prefields indicate that learners have trouble departing from default subject-object/agent-patient orders. At the same time, information structure criteria point to problems of thematic progression in L2 texts.

Keywords: second language acquisition, syntax-discourse interface, word order flexibility, information structure, object fronting

1. Introduction

In the last decades, the cognitive turn in linguistic theory has led to considerable investigation into the ways in which grammar phenomena contribute to the construction of meaning (see Langacker 1987; Goldberg 1995). In other words, there has been increasing emphasis on the elements of grammar as structures which are "shaped and constrained by the functions" they serve (Langacker 2008: 7). As a result, the field of syntax, which used to be treated by formalist approaches as an autonomous device for structure computation, has been progressively modelled as a pervasive system representing semantic and pragmatic (including discourse) information in linear order (Hyman 1983; Givón 1985). In recent research on second language acquisition, there has been a parallel emphasis on learners' command of the target-language grammar in terms of

syntax-semantic and syntax-discourse interface phenomena. Focusing on the syntax-discourse interface, several contributions have shown that learners encounter major difficulties in adjusting the form of their utterances to discourse constraints such as information structure (see White 2011; Dimroth & Narasimhan 2012 for a review of relevant studies). This reinforced the assumption that target-like use of word order matching discourse functions is a hallmark of ultimate native-like attainment in the L2 (Lozano 2006; Hopp 2009).

The present paper aims at shedding some light on the command of word order phenomena at the syntax-discourse interface in the writings of intermediate to upper-intermediate French-speaking learners of German (level B1-B2). The acquisition of word order in L2 German has received much attention in the literature (see, e.g., Clahsen, Meisel & Pienemann 1983; Clahsen & Muysken 1986; Håkansson, Pienemann & Sayehli 2002). However, few studies addressed the issue of L2 syntax from the perspective of its interaction with discourse embedding and information structure. Moreover, despite their merits, most contributions on L2 syntax-discourse phenomena remain focused on learners' use, processing and representations of specific target-language structures to encode discourse constraints (see, e.g., Bohnacker & Rosén 2008; Hopp 2009). In this article, we propose to extend the analysis of learners' productions to a larger scope including not only a focus on specific discourse-to-syntax mapping patterns, but also a more general account of how learners deal with information-structure constraints such as the givenness status of discourse referents. For this purpose, we examine the way in which learners fill the sentence-initial position in V2 declaratives to adjust to preceding discourse. In German, the finite verb is placed in second position in declarative sentences, with a single constituent preceding it and filling a position known as prefield[1]. The prefield is a dedicated position for hosting topical constituents (see Erteschik-Shir 2007), but there are no restrictions as to the syntactic role of constituents that can qualify as prefields. It follows that not only subjects can occupy the sentence-initial position, as it can indeed also contain adjuncts serving as stage topics and non-subject arguments with a high degree of discourse activeness. On this latter point, a specific research question addressed in this paper involves the assessment of learners' use of non-canonical discourse-to-syntax mappings in the form of the fronting of non-subject arguments. Based on the link between prefield and discourse activeness and the comparison with L1 data, this question is discussed in connection with the main issue at the centre of our investigation, namely to what extent L2 preferences in grammar, i.e. learners' preferences for certain types of sentence prefields, reflect proficiency at the level of information structure.

The article is organized as follows. Section 2 presents a description of syntax as constrained by iconicity principles of discourse (i.e. given information before

[1] The prefield is originally defined within the framework of the so-called topological field model capturing distribution regulaties in the surface word order of German sentences. The topological field model identifies a verbal bracket hosting finite (left bracket) and non-finite (right bracket) verbal elements, as well as three fields (prefield, middelfield and postfield) that are filled with adjuncts and arguments (see Höhle 1986).

new information), as well as a presentation of object fronting structures in German and a discussion of word order acquisition in L2 German (with and without reference to discourse). On this basis, the research questions are presented. Section 3 is devoted to the methodological matters. We describe the two groups of participants, the conditions of the writing assignment and the annotation scheme adopted for data analysis. In section 4, we present and analyze the results of the cross-group comparison. Section 5 discusses the main findings in light of language-specific and language-independent issues of L2 syntax-discourse acquisition. Finally, section 6 offers a brief conclusion.

2. Theoretical framework

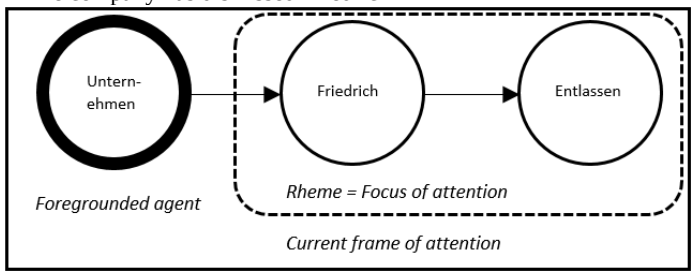
2.1. Word order markedness and the encoding of information structure in syntax

An essential prerequisite for all investigation in the field of L2 acquisition pertains to the nature of grammar knowledge. Focusing on word order, doubts have been widely cast on the assumption of an autonomous syntactic component as suggested in a modular representation of grammar competence (cf. Fodor 1983). Within the framework of the Autonomy of Syntax Hypothesis (Newmeyer 1998), pragmatically relevant processes, among which the packaging of information units along a given-before-new progression, are – at least at an early stage – fully disregarded for the purposes of the syntactic computation. The autonomy hypothesis came under repeated criticism from cognitive-functional approaches to grammar (Givón 1985; Langacker 1987; Goldberg 1995), which advocate the inextricable connection between knowledge of structure and knowledge of meaning. Accordingly, the symbolic nature of grammar makes it possible to dispense with incremental syntactic operations required to adjust word order to pragmatic-communicative needs. From a cognitive-functional point of view, the linear organization of sentence constituents is in essence permeable to factors relating to information flow. At each stage of the discourse chain, sentences are designed as attentional frames, whose conceptual integration involves the repetition of discourse given referents in preposed sentence positions (Langacker 2008: 512-513). Building upon the speaker's assumptions about the degree of activation of referents in the addressee's mind at the time of utterance (Chafe 1976, 1994; Prince 1981), givenness thus operates as a reference point opening space for rhematic information to be selected from a limited set of possible propositions. To summarize, the conceptual motivation of word order in unfolding discourse, arranged from left to right according to information flow, legitimates the assumption of an iconicity principle at work in syntax. An appropriate formulation of this principle can be found in Greenberg's Iconicity of Sequence Principle (1966: 103):

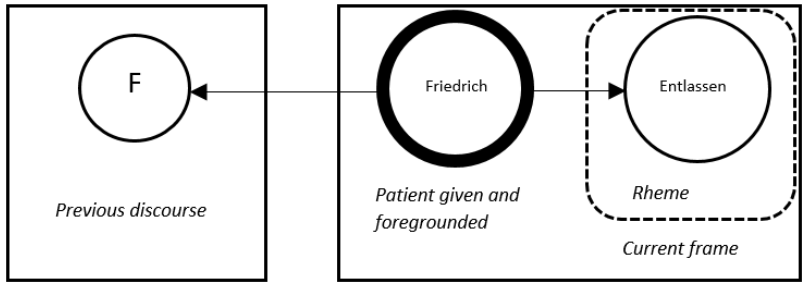
Iconicity of Sequence Principle:
The order of elements in language parallels that in physical experience or the order of knowledge.

Assuming the non-arbitrary, i.e. cognitively rooted, mapping of information structure (henceforth, IS) onto word order, it is necessary to introduce a distinction between unmarked and marked structures. Here, markedness is not to be understood in terms of transformational syntax as derivation of marked orders from underlying structures. Rejecting the modularity hypothesis, we will keep the question of syntactic movement out of the discussion and proceed further based on the general claim that the unmarked arrangement in a language follows the natural path of access to event participants in human experience (see Givon 1991). For example, an action chain event involving the dismissal of an employee may give rise to different argument orderings in its linguistic realization.

(1) *Das Unternehmen hat Friedrich entlassen* **(Agent first)**
The.N.NOM company has Friedrich-OBJ dismissed-PTCP
'The company has dismissed Friedrich.'



(2) *Erinnerst du dich an meinen Freund* **(Patient first)**
Remember-2SG you.NOM you.ACC at mein-M.ACC friend
Friedrich? Er wurde entlassen.
Friedrich He has.been-PASS dismissed-PTCP
'Do you remember my friend Friedrich? He has been dismissed.'



The active SVO sentence in (1) corresponds to the unmarked structure in that it aligns to the sequence of the action chain as its conceptual basis. The agent *Das Unternehmen* is assigned the grammatical function of subject and occurs in sentence-initial position. Now, let us examine (2), the passive counterpart to (1) embedded in context. Having no semantic effect on the description of the action chain event, the passive alternation can be characterized as a discourse-related marked structure. In (2), a feature [+given] is added to the feature [-agent] of the aboutness topic (the patient referent *Friedrich*) and therefore provides justification for the choice of a discourse-related passive structure. As Dryer (1995: 113) claims, a component of the speaker's language knowledge must include a set of

discourse rules that determines the contexts which call for the selection of a marked structure such as the passive. This of course does not imply, from the perspective of morphosyntax, that the realization of an active sentence like (3) would prove not well-formed in the same context as in (2).

(3) *Erinnerst du dich an meinen Freund Friedrich?*
Remember-2SG you.NOM you.ACC at mein-M.ACC friend Friedrich
Das Unternehmen hat ihn entlassen
The.N.NOM company has him dismissed-PTCP
'Do you remember my friend Friedrich? The company has dismissed him.'

Nevertheless, although morphosyntax could potentially stand on its own feet and ignore pragmatic factors, options like (2) prompt us to admit that when "pragmatic factors become part of grammar, the result is syntax and morphology" (Hyman 1983: 71-72). Structures emerging in discourse can then be best defined in terms of felicitousness in the sense that they are, in matching embedding context, favored over other grammatically possible alternatives.

2.2. Marked structures at the left periphery in German

Focusing on languages allowing for word order flexibility, we can see that the reversal of canonical order applies not only to thematic roles, but may also affect the syntactic functions of arguments (see Givon 1994: 8-12; Chiarcos 2009: 56-58). In this case, the active voice is maintained and changes in linear structure only derive from the discourse-status of the involved constituents. Let us examine the following example in German, provided with context:

(4) *Der zuständige Unfallversicherungsträger lehnte die Anerkennung des Unfalls als versicherten Wegeunfall ab.*
'The competent accident insurance company rejects to recognize this accident as a road traffic accident.'
Diese ***Entscheidung*** *hat* ***ein*** ***Sozialgericht*** *auf>* *Klage*
This.F.ACC decision-OBJ has a.N.NOM social-court-SBJ on complaint
des Verletzten <hin aufgehoben.
the.M.GEN injured-GEN annulled-PTCP
'A social court annulled this decision on complaint of the victim.'

Here, the fronted object NP *Diese Entscheidung* refers to information already evoked by the previous sentence, as indicated by the demonstrative, while the subject NP *ein Sozialgericht* introduces a new discourse entity, as signaled by the indefinite article. To summarize, there are three devices available in German in order to promote given arguments to the sentence-position: (i) the unmarked SVO order, i.e. the active structure in which the agent exhibits the highest degree of discourse activeness; (ii) the passive structure that retains the canonical subject-first pattern, but in which the given patient is promoted to the prefield, and the agent is either demoted to adjunct status or omitted; (iii) object fronting that maintains the preposed patient in its syntactic function of object, and in which the

agentive subject, relegated to the post-verbal domain, is not demoted. Figure 1 sketches the various options for fronting given arguments in combination with semantic role and agent saliency.

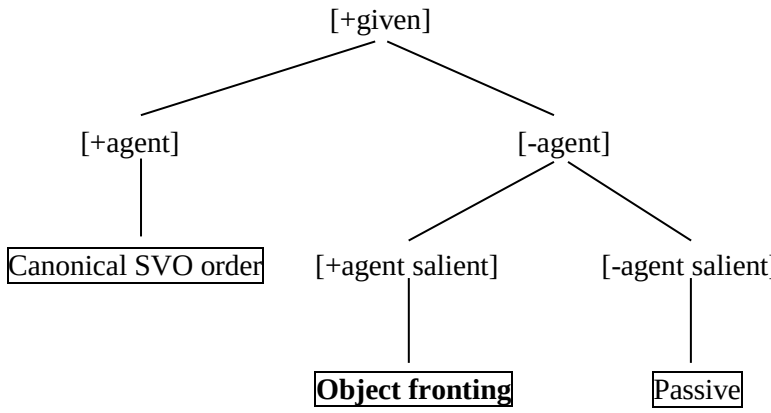


Figure 1. Utterance structure in function of prefield givenness, prefield semantic role and agent saliency

Structures involving objects in the sentence prefield (object fronting) are a property of morphologically rich languages like German. Indeed, in languages using inflectional marking to encode syntactic relations, linear order is available as an additional device to fulfill discourse functions (Frajzyngier & Shay 2016: 103). This form-function correlation between information structure and syntax, i.e. the arrangement from left to right of given and new information, may however constitute a major challenge for L1 French/L2 German speakers. As for object fronting, French has no equivalent, as syntactic relations are not indicated by morphology, but by the relative position of constituents. A translation of (4) in French would then take the form of either a passive, as in (5a), or a left-dislocation with clitic resumption, as illustrated in (5b).

(5) L'organisme assureur avait rejeté la reconnaissance de l'accident comme accident de la route couvert par l'assurance.
'The competent accident insurance company rejects to recognize this accident as a road traffic accident'.

(a) ***Cette*** ***décision*** *a été annulée par un tribunal*
This.F decision has been annulled-PTCP by a.M court
social sur plainte de la victime.
social on complaint of the.F victime

(b) ***Cette*** ***décision,*** *un tribunal social* ***l'*** *a annulée*
This.F decision a.M court social it-CL has annulled-PTCP
sur plainte de la victime.
on complaint of the.F victim
'A social court annulled this decision on complaint of the victim.'

2.3. Discourse competence and the acquisition of word order in L2 German

Despite increased emphasis on interfaces in language theory, current perspectives on language learning and teaching remain largely grounded in a modular paradigm[2]. Evidence includes, in the first place, the partition between formal and communicative language competences in the Common European Framework of Reference. The CEFR certainly gives sufficient weight to the discourse competence, highlighting the importance for learners (a) to "reformulate in different ways to emphasize points" and (b) to "develop a text appropriately" (2018: 139-141), but it addresses this issue without any conceptual link to the level of grammatical accuracy, which is described in another section as "both the learner's ability to recall 'prefabricated' expressions correctly and the capacity to focus on grammatical forms whilst articulating thought" (2018: 133).

This split between syntax and information structure as separate objects of inquiry also holds for most research on word order in L2 German. Focusing on narrow syntax, i.e. the selection and combination of lexical and functional items, several contributions since the early eighties, all grounded in Processability Theory, have strengthened the hypothesis of a rather fixed sequence of developmental stages in the acquisition of German structures (Clahsen, Meisel & Pienemann 1983; Clahsen & Muysken 1986; Håkansson, Pienemann & Sayehli 2002). From SVO canonical order as a starting point, learners are taken along a typical pathway leading to SOV subordinate clauses. Regarding V2 declaratives, intermediate stages deal with XVS structures involving the fronting of adverbials, but no specific place is allocated in the acquisition hierarchy to OVS structures resulting from object fronting. In other words, most studies addressing syntax development in L2 German are primarily concerned with patterns of verb placement, leaving aside the question of subject-object ordering. To date, the only investigation of sentence prefields in L2 German productions, oral as well as written, can be found in a study by Bohnacker and Rosén (2008), who looked at the frequencies of prefield constituent types in native German, native Swedish and nonnative German (L1 Swedish) corpora. The authors conclude that prefield filling in the L2 is sensitive to L1 transfer and they link the overuse of L1 patterns to the implementation of information-structural principles at work in Swedish. However, this finding must be considered with prudence, since the analysis is based on generalizations regarding the informational value of grammatical categories (e.g. phonologically light adverbials like *so* as text linking elements), the authors' annotation scheme leaving out IS variables as such.

Compared to research on L2 German syntax, research investigating IS contours of learners' utterances is relatively recent and driven by the need to study L2 productions "as communicative systems in their own right and not as imperfect imitations of the target language" (Dimroth & Narasimhan 2012: 329). Interesting

[2] For suggestions on the implementation of cognitive-functional linguistics in foreign language teaching and a discussion of the importance of form-function mappings in contexts of second language learning, see De Knop, Boers & De Rycker (2010).

in this respect is the seminal contribution of Klein and Perdue (1992), who provided detailed analysis of learners' utterances at early stages of acquisition. Their work shows that beginning learners organize basic patterns in the form of juxtaposed NPs (or an NP and a PP/AdvP) following a theme-rheme progression.

(6) *De brot ich nehme* (Klein & Perdue 1992: 147)
'The bread I take'

(7) *Sie in ein Zimmer* (Klein & Perdue 1992: 160)
'She in one room'

While early expressions in the L2 mainly elaborate on IS principles, the overall picture shifts when learners proceed to the acquisition of L2 morphosyntax. On the one hand, L2 learners seem capable of handling IS functions attached to specific forms when the form-function pairings in question also play a role in the L1 (see Hendriks 2000 regarding the use of left-dislocations in L2 French). On the other hand, when confronted to unknown word order patterns for encoding IS functions, learners' attempts to access the syntax-discourse (SD) interface remain "persistently problematic" (Lozano 2006: 158). The prediction that target-like command at interfaces is unachievable has been challenged by Hopp (2009), who demonstrated that advanced learners with L1 English mastered IS constraints on German scrambling, but this conclusion is based on on-line comprehension reading and acceptability judgement tasks, and therefore leaves open the question of whether learners can maintain the same level of accuracy in production contexts.

To sum up, numerous contributions looked at word order phenomena in L2 German, either from the perspective of narrow syntax or with a closer focus on IS, but very few (e.g. Bohnacker & Rosén 2008; Hopp 2009) considered the interaction between sentence form and discourse functions based on the assumption of a complex interface. Furthermore, empirical studies interested in SD mapping functions make use of syntactic criteria to make sense of learners' interlanguage. However, even if learners fail to use target-like structures to encode IS, there is nothing to indicate that learners' productions underperform on the SD level. By way of illustration, the underuse of object fronting in L2 German may for instance be offset by an overuse of adverbial clauses creating thematic coherence:

(8) (a) ***Dieses*** ***Versprechen*** *hat* *der* *Vorstand* *gebrochen.*
This.N.ACC promise-OBJ has the.M.NOM Board-SBJ broken-PTCP
'The Management Board broke this promise.'

(b) ***Was*** ***dieses*** ***Versprechen*** ***betrifft***, *der* *Vorstand*
What this.N.ACC promise-OBJ concerns-3SG the.M.NOM Board
hat ***ihn*** *gebrochen.*
has it.N.ACC broken-PTCP
'With regard to this promise, the Management Board broke it.'

In light of the need to assess L2 productions from the angle of language functions, the data presented in this article will be analyzed based on the two following research questions:

- To what extent do L2 learners resort to target-language forms like object fronting to mark IS features such as givenness?
- Do the syntactic patterns occurring in L2 discourse observe IS constraints like the given-before-new principle, irrespective of the use of specific target-language structures?

Within a broader framework, answers to these questions should, in a next step, provide material for addressing the following theoretical issues:

- Is there an effect of the L1 on word order patterns encountered in L2 SD?
- Does L2 acquisition in SD point to more universal, language-independent issues of processing complexity?

With reference to these points, a central question to be discussed is whether the SD interface is a hallmark of near-native attainment in the L2 or, on the contrary, an intrinsic feature of L2 varieties we can expect to find, though in different forms, at less advanced acquisition stages.

3. Method

3.1. Participants

Two groups of participants took part in the study: a group of 23 learners of German as a foreign language and a group of 24 native speakers of German as controls. At the time of data collection, all L2 participants were enrolled in the second or third year of the bachelor degree program in Modern Languages. In accordance with the requirements specification detailing the acquisition stages to be reached after completion of each language module, the group of learners was taken as a homogenous group representative of an intermediate (B1) to upper-intermediate (B2) proficiency level. All 23 learners reported French as L1. Regarding the L1 German group, 21 participants were, at the time of the study, undergraduate students of Education, the remaining three being students in Modern Languages.

3.2. Data collection

Learners and native controls were asked to write a newspaper article (length of ca. 300 words) about the following topical issue: “One year after the presidential election in the US”. The motivations behind this writing task were the following. First, in contrast to argumentative texts, informative and expository texts offer the advantage to require the clear and objective exposition of a complex situation. Second, unlike story retellings, news items tend to break with the chronological sequencing of events to depict the ins and outs of a complex issue at a given point

in time (Van Dijk 1988). Finally, in order to increase text coherence and communicative dynamism, it is not uncommon to observe transitions in news stories where the rheme of a sentence becomes theme in the following one (Moya Guijarro 2001: 109-110). For those reasons, we considered this text genre would be best suited to encourage participants to pay greater attention to discourse constraints.

To reduce cognitive load on L2 participants, two strategies were adopted: (a) provision of linguistic and content support in the form of a vocabulary list and a list of bare facts relevant to the topic, in bullet form and organized by sub-themes, and (b) unpressured time conditions. Increased planning time has long been linked with improved proficiency in writing tasks. Several studies do indeed indicate that when learners are afforded more time to articulate their thoughts, their productions gain in fluency and complexity (Foster & Skehan 1996; Ellis & Yuan 2004). Regarding content support, recent findings revealed that it was likely to reduce processing and planning difficulties (Révész, Kourtali & Mazgutova 2017).

3.3. Data coding

First, all handwritten data were typed, saved as text documents and manually entered into a spreadsheet. The segments considered for coding were T-units, understood as a main clause taken together with all subordinate clauses and remaining non-clausal elements attached to it (Hunt 1965: 20). This amounted to a segmentation of participants' texts into sentences with capital letters and full stop as terminal points. All sentences were listed in the same order as their order of appearance in the texts and labelled according to source text and group provenance (L1 or L2). It should be noted that interrogative sentences were not coded, since V1 interrogatives have no prefield and V2 interrogatives follow predictable patterns with focused *wh*-constituents in sentence-initial position. As a result, 490 sentences for the L2 group and 566 sentences for the L1 control group were considered for coding.

In line with the complex nature of the SD interface, four categories were established as a framework for coding: verb valency, prefield grammatical function, prefield semantic role and prefield IS status. We did not include any morphological features in the quantitative analysis given the fact that the German inflectional paradigm displays several instances of neutralization (e.g. the use of identical endings for feminine singular, neuter singular and plural articles in nominative and accusative forms) and syncretism (e.g. the same inflection for masculine nominative and feminine dative). For this reason, we limited our investigation of morphological accuracy to a qualitative analysis based on the few occurrences of the masculine singular nominative/accusative alternation in the dataset (see 5.2. for a discussion of the role of functional morphology in L2 acquisition at the SD interface).

3.3.1. *Verb valency*

It goes without saying that object fronting can only be expected in the presence of at least one object argument. Therefore, in order to restrict the analysis of prefield grammatical function to relevant sentence contexts, we specified the realized valency, i.e. all uttered verb arguments, of each main clause. Table 1 provides a list of all structures in our dataset with at least one overt object argument.

Table 1. Valency patterns involving at least one overt object argument

Structure	Examples from the dataset
Obj$_{akk}$	*Es gibt nämlich eine hohe Senkung der Arbeitslosigkeit* (Obj$_{acc}$). 'There is indeed a large reduction of unemployment.'
Subj + Obj$_{acc}$	*Die Wall-Street* (Subj) *hat also die Macht* (Obj$_{acc}$) *übernommen*. 'So, Wall Street took over power.'
Subj + Obj$_{prp}$	*Gleichzeitig setzt er* (Subj) *sich auch für die Verteidigung der Religionsfreiheit* (Obj$_{prp}$) *ein*. 'He is at the same time also committed to the defense of religious freedom.'
Subj + Obj$_{acc}$ + Obj$_{dat}$	*Dem Volk* (Obj$_{dat}$) *hatte er* (Subj) *Steuersenkungen* (Obj$_{acc}$) *versprochen*. 'He had promised tax reductions to the population.'
Subj + Obj$_{acc}$ + Obj$_{prp}$	*Zusätzlich belastet die Steuerreform* (Subj) *das Budget* (Obj$_{akk}$) *mit jährlich weiteren 150 Milliarden US-Dollar* (Obj$_{prp}$). 'In addition, the tax reform charges the budget with a further 150 billion US-Dollar per year.'
Subj + Obj$_{acc}$ + Adv	*Nach einem Jahr Regierungszeit jedoch, hat er* (Subj) *den Staat* (Obj$_{acc}$) *um weitere 700 Milliarden US-Dollar* (Adv) *verschuldet.* 'However, after one year in office, he has increased the public debt by a further 700 billion US-Dollar.'
Subj + Obj$_{acc}$ + Prd	*Das Weiße Haus* (Subj) *stellt diese* (Obj$_{acc}$) *als ‚Fake News' (Prd) dar*. 'The White House labels these as fake news.'

3.3.2. *Prefield grammatical function*

Regarding grammatical function, each prefield was classified into one of the following six categories: subject, expletive, object (accusative, dative or prepositional), predicative, adverbial and dependent (e.g. the case of fronted prepositional phrases that function as NP modifiers).

Two comments need to be made regarding the occurrence of multiple constituents at the left of V2. First, left-detached positions, i.e. positions occupied by elements outside the clause but within the sentence, will be allocated a specific category termed pre-prefield filling. An example of such structures is given in (9):

(9) ***Und*** ***ob*** ***seine*** ***Erfolge*** ***positiv*** ***oder*** ***negativ*** ***sind,***
And whether his-PL.NOM achievements positive or negative are.3PL
darüber *muss* *sich* *jeder* *seine* *eigene*
about.it must.3SG themselves-REFL everyone.NOM their-F.SG.ACC own
Meinung *bilden.*
opinion form-INF
'And whether his achievements are positive or negative, everyone has to form their own opinion on this matter.'

Second, the question arises as to how to deal with multiple clause constituents in learners' prefields, as illustrated in (10). Those patterns were labelled as multiple prefield occupation and used as an assessment criterion for learners' command of V2 placement.

(10) ***Aber*** ***[sein*** ***Versuch]*** ***[durch*** ***den*** ***Widerstand*** ***der***
But his.M.NOM attempt by the.M.ACC resistance the.PL.GEN
Senatoren] *scheiterte.*
senators failed.3SG
'But his attempt failed due to resistance from Senators.'

3.3.3. *Prefield semantic role*

Each occurrence of verb arguments in sentence-initial position was classified as being either more agent-like or more patient-like. This classification is based on Dowty's inventory of core semantic properties allowing for a more transparent approach to argument relations without having to rely on a list of thematic roles whose exhaustiveness is always a matter of debate. Table 2 outlines proto-agent and proto-patient properties, as defined by Dowty (1991: 576).

Table 2. Thematic proto-roles properties

Proto-role	Properties
Proto-Agent	a. Volitional involvement in the event or state
	b. Sentience/perception
	c. Causing an event or change of state in another participant
	d. Movement (relative to the position of another participant)
	e. Existence independently of the event named by the verb
Proto-Patient	a. Undergoes a change of state
	b. Causally affected by another participant
	c. Stationary relative to movement of another participant

3.3.4. *Prefield IS status*

As mentioned in the introduction, IS was addressed in terms of discourse givenness. This entails that discourse referents, which may be known from the extralinguistic context (e.g. the republican senators), but are introduced for the first time in the discourse, received the label 'discourse new'. The main obstacle to be overcome in coding discourse givenness is related to the text segment within

which it is reasonable to consider a referent as active, i.e. accessible to the addressee's consciousness. Since the delimitation of this segment may be, in many cases, a matter of interpretation, we built on the notion of immediately relevant preceding context (see Firbas: 1992: 22-25) and, for the sake of consistency, limited its extent to the preceding sentence (S-1).

In light of existing guidelines for the annotation of IS categories (Götze et al. 2007; De Kuthy & Riester 2014; Mamprin & Stede 2016), the three following givenness values were adopted for coding prefield NP complements: given, new or bridging. A referent was reported as given whenever it was mentioned in S-1 – although potentially in another linguistic form (e.g. as a pronoun). In contrast, referents mentioned in S but not in S-1 were assigned the status 'new'. Cases of bridging involve a range of new discourse entities whose introduction is however determined by their relationship to a referent previously mentioned (Clark 1977). By opening a window for newness on the basis of given discourse material, bridging is in this way the medium par excellence to enhance the communicative dynamism of a text without prejudice to the overall coherence. In the simplest case, the association of new information to a referent in S-1 is explicit, as illustrated by the relationship of possession:

(11) *Nur 40% der Amerikaner stehen hinter dem Präsidenten.*
'Only 40% of Americans stand behind the president.'

Seinen	***Vorgänger***	*unterstützten*	*50%*	*des*	*amerikanischen*
His-M.NOM	predecessor-OBJ	supported.3PL	50%	the.N.GEN	american-GEN

Volkes.
people-GEN
'His predecessor was supported by 50% of American people.'

There are less obvious varieties of bridging which appeal to the addressee's ability to draw inferences from their world knowledge. However, in a majority of instances, a relation of set inclusion or contiguity can be captured between both referents, as manifested by the following examples from our dataset:

(12)

Von	***einer***	***bis***	***zu***	***neun***	***Meter***	***hohen***	***Mauer***	*ist*	*weit*	*und*
Of	a-F.DAT	up	to	nine	metres	high.DAT	wall	is	far	and
breit	*nichts*	*zu*	*sehen.*	*Lediglich*	***ein***	***kleiner***	***Zaun***	*hat*		
wide	nothing	to	see-INF	Only	a.M.NOM	small-M.NOM	fence	has		
dort	*seinen*	*Platz*	*gefunden.*							
there	his-M.ACC	place	found-PTCP							

'No such thing as a 9 metres high wall can be seen far and wide. Only a small fence has been installed there.

(13) *Seit einigen Tagen kann man in vielen Zeitungen Zwischenzeugnisse über den Republikaner lesen.*
'Since a few days interim reports about the republican can be read in the newspapers.'

Grund	*ist,*	*dass*	*er*	*seit*	*dem*	*20.*	*Januar*	*als*	*45.*
Reason	is	that-COMP	he	since	the.M.DAT	20th	January	as	45th
US-Präsident	*vereidigt*			*wurde.*					
US president	sworn.in-PTCP			has.been-PASS					

The reason is that he was sworn in on 20th January 2017 as the 45th President of the US.'

4. Results and analysis

4.1. Command of V2

Before turning to the in-depth analysis of how French-speaking learners of German use the sentence prefield, we first need to determine how they respond to the V2 rule in declaratives. Earlier research on the acquisition of verb second revealed that L2 learners with a non-V2 L1 encounter difficulties with verb placement in non-subject-initial declaratives. Within the framework of the Processability Theory, experimental studies conducted on learners with a Romance language background concluded to a late command of V2, namely at the penultimate stage – before V-end in subordinate clauses – of a six-stage path of word order acquisition (see Pienemann 1998: 98-111). Two main factors were invoked to account for this: 1) SVO is considered as a basic word order and, accordingly, patterns of verb placement departing from SVO may prove a challenge for learners 2) canonical SVO order as well as XSV (V3, with a fronted constituent preceding subject and verb) cause less parsing and production difficulties than XVS patterns. Aside from universal factors, L1 transfer can also be put forward as a trigger for non-target-like V3 in the case of Romance L1 learners.

What about our learners of German with French as a first language? Despite the alleged difficulties associated with V2 production, our group of intermediate to upper-intermediate learners adhere at a high level to the V2 constraint, as reported in Table 3:

Table 3. Frequency of target-like V2 declaratives (L2)

Verb pattern		
Target-like V2	*N*	472/490
	Percent	96%
Non-target-like V3	*N*	18/490
	Percent	4%

With the confirmation that learners master the V2 constraint, we can now address the question of the types of constituents they select to fill the free position at the left of the finitum. In other words: are learners dealing with the prefield in a target-like fashion, i.e. as a position that "can be occupied by virtually any

constituent, phrasal or clausal, argumental or nonargumental, phonologically light or heavy, and with any semantic function" (Bohnacker 2005: 44)?

4.2. Constituents in the prefield

4.2.1. *Prefield grammatical function*

A first indication of how learners use the prefield as a reference point to anchor a new sentence in discourse is the degree of flexibility they display in selecting constituent types. Table 5 shows that the frequencies of constituent types in L2 productions differ primarily from L1 data in the use of subjects and objects as prefield filling elements (see also Figure 2 for a graphic representation).

Table 4. Constituents in the prefield according to grammatical function (L2 compared to L1)

Type of constituent	**L2 German writing** (*n*=490)	**L1 German writing** (*n*=566)
Subjects	254 (51,8%)	241 (42,6%)
Expletives	16 (3,3%)	13 (2,3%)
Objects	2 (0,4%)	43 (7,6%)
Adverbials	171 (34,9%)	208 (36,7%)
Predicatives	21 (4,3%)	32 (5,7%)
Dependents	0 (0%)	7 (1,2%)
Ellipses	8 (1,6%)	22 (3,9%)
Multiple prefields	18 (3,7%)	0 (0%)

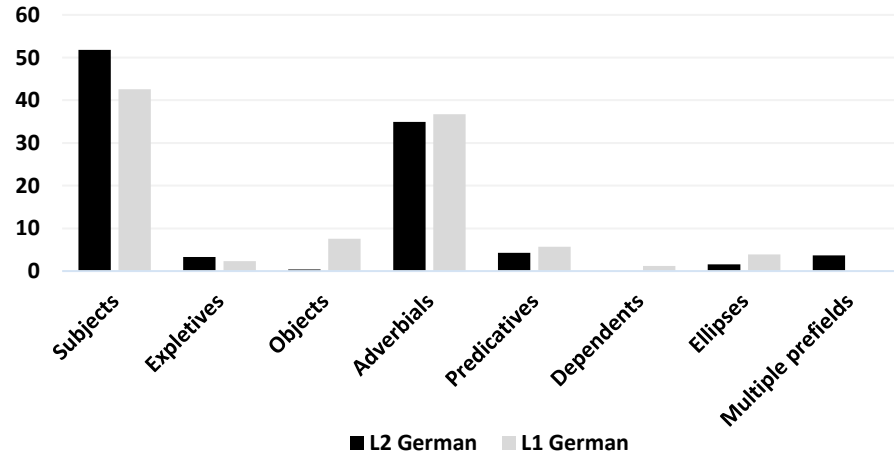


Figure 2. Percentage of prefield constituent types according to grammatical function, (L2 compared to L1)

Regarding the use of subjects and objects in the prefield, the contrast between L2 and L1 data is even more striking when we limit the analysis to relevant syntactic contexts, i.e. to sentences in which the main clause verb subcategorizes for one subject plus at least one object NP or PP (accusatives, datives or prepositional objects). Typical contexts involving the presence of this type of syntactic arguments include transitive (Subj + Obj_{acc}), ditransitive (Subj + Obj_{acc} + Obj_{dat}) and relative intransitive clauses, i.e. intransitive clauses selecting a dative or prepositional object (Subj + Obj_{dat}/Obj_{prp}). As reported in table 5 (see also Figure 3), the gap between learners and natives is in all logic widening when structures, which do not accommodate objects (e.g. copular structures), are left out of the picture. A Chi-squared test was carried out on the constituent types 'Subjects' (vs. the sum of all non-subject constituents) and 'Objects' (vs. the sum of all non-object constituents), with L1 and L2 groups encoded as categories of the explanatory variable. The analysis pointed to a significant association between group and subject use in the prefield (χ^2 = 15.33, df = 1, p < .001). The same conclusion holds for the positioning of objects in the prefield (χ^2 = 31.24, df = 1, p < .001). A calculation of probability ratio (0.058, 95% CI [0.014, 0.240]) also indicated that objects are much less likely to appear in L2 than in L1 prefields.

Table 5. Constituents in the prefield according to grammatical function (results limited to valency patterns including objects)

Type of constituent	**L2 German writing** (*n*=261)	**L1 German writing** (*n*=312)
Subjects	147 (56,3%)	124 (39,8%)
Expletives	1 (0,3%)	1 (0,3%)
Objects	2 (0,8%)	41 (13,1%)
Adverbials	95 (36,4%)	123 (39,4%)
Dependents	0 (0%)	2 (0,7%)
Ellipses	7 (2,7%)	21 (6,7%)
Multiple prefields	9 (3,5%)	0 (0%)

Furthermore, the comparison between L1 and L2 results in table 5 calls for some comments regarding (a) fronted dependents and (b) ellipses. First, as illustrated in (9), repeated in (14), L1 data show patterns of discontinuous constituency, which, although used sporadically by natives, do not appear in L2 productions. To account for discontinuous constituency, both generative and cognitive-functional models highlight the prominent role of the theme-rheme structure of the sentence. More specifically, linear discontinuity is allowed if head and dependent do not share similar IS properties. A dependent PP can accordingly be split from its embedding NP and occupy the sentence-initial position if it functions as background element, while the nominal head is assigned to a conceptual grouping with a higher degree of informativeness (Langacker 1997: 15; De Kuthy 2002: 159-160).

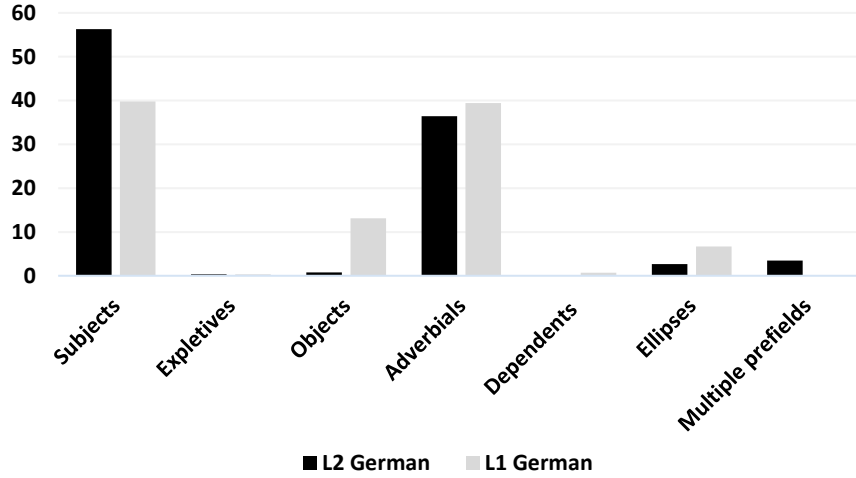


Figure 3. Percentage of prefield constituent types (results limited to valency patterns including objects)

(14) *Und ob seine Erfolge positiv oder negativ sind,* ***[darüber]***$_{\textbf{PP-dependent}}$ *muss sich jeder seine eigene* ***[Meinung]***$_{\textbf{NP-head}}$ *bilden.*
'And whether his achievements are positive or negative, everyone has to form their own opinion on this matter.'

Another example of structures constrained by discourse factors is provided by subject ellipses. The omission of the subject in the second conjunct of coordinate clauses is a cost-effective way to handle givenness. However, even though they seem more familiar with subject omission than constituency split – possibly because of L1 resources –, learners resort less often to ellipsis than natives.

4.2.2. *Prefield Semantic role*

Based on the classification of arguments according to their semantic roles in the event structure, we can observe that few learners' prefields show proto-patient properties compared to L1 counterparts, whether in the form of object fronting, by the use of a passive (or a related structure like the passive infinitive (15)) or in combination with unaccusative (16) and experiencer verbs (17).

(15)	***Diese***	***Entscheidung***	*ist*	*nicht*	*einfach*	*klar>zu<stellen.*		**(L2)**
	This.F.NOM	decision	is	not	easy	to.clarify-INF		
	'This decision is not easy to clarify.'							

(16)	***Das***	***Wachstum***	*ist*	*jüngst*	*um*	*3%*	*gestiegen.*	**(L2)**
	The.N.NOM	growth	is	recently	by	3%	increased-PTCP	
	'This growth has recently increased by 3%.'							

(17) ***Kindern*** ***illegaler*** ***Einwanderer*** *droht* *eine* *plötzliche* **(L1)**
Children-DAT illegal-PL.GEN immigrants threatens a-F.NOM immediate-F.NOM
Abschiebung.
expulsion
'Children of illegal immigrants live under the threat of an immediate expulsion.'

A Chi-squared test was performed and showed a significant relationship between the variables 'Group' and 'Semantic proto-role' ($\chi^2 = 16.79$, df = 1, $p < .001$). A complementary measurement of probability ratio (0.505, 95% CI [0.359, 0.712]) confirmed a lower likelihood for proto-patient arguments to occur in learners' prefields.

Table 6. Semantic proto-roles in prefield position

Type of proto-role	**L2 German** (*n*=170)	**L1 German** (*n*=183)
Proto-Agent	135 (79%)	108 (59%)
Proto-Patient	35 (21%)	75 (41%)

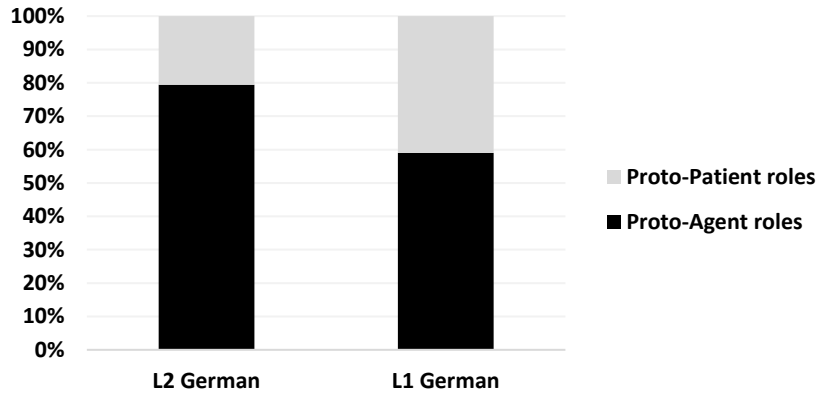


Figure 4. Classification of prefields according to semantic proto-roles

These results coupled to those of the analysis by grammatical function suggest that learners not only rely on a subject first strategy to fill prefield positions, but that this preference for subjects is accompanied by a strong tendency to conform with an agent first principle. In other words, the findings point to difficulties to depart from the unmarked syntactic order in the L2. Compared to natives, learners show a greater preference for the depiction of events in a source-goal fashion, i.e. following – regarding temporality and causation – the unmarked iconic order of presentation of the involved participants. Furthermore, when they select the patient as the primary event participant, learners almost invariably for a passive. In other words, the challenge for learners is to access the use of object fronting (see figure 1, section 2.2.), a challenge that may be explained by the impossibility to transfer this specific pattern from their L1 background.

As stated above, the underuse of object fronting in learners' productions does not imply that learners do not resort to alternative strategies to create structures combining patient givenness and agent saliency. The prediction that those strategies materialize in an overuse – compared to L1 data – of thematic adverbial clauses/PPs in the prefield or pre-prefield is indeed supported by the data. Learners' prefields/pre-prefields display 20 occurrences (4,1%) of thematic clauses/PPs, against 5 (0,9%) in the L1 data. The following examples illustrate how learners make use of those patterns in order to express action chain events from the perspective of a thematic patient.

(18) (a) ***Im Hinblick auf die Beseitigung von Obamacare*** **(L2)**
In.the.N.DAT regard to the.F.ACC removal of Obamacare
hat das Weiße Haus bestanden dieses Gesetz
has the.N.NOM White House insisted-PTCP this.N.ACC law
auf>zu<heben.
to.repeal-INF
'Regarding the removal of Obamacare, the White House has insisted on repealing this law.'

(b) ***Was das Obamacare anbetrifft,*** *has die neue* **(L2)**
What the.N.ACC Obamacare concern-3SG hat the.F.NOM new
Regierung die Wahl gemacht, es auf>zu<heben.
government the.F.ACC choice made-PTCP it to.repeal-INF
'What Obamacare concerns, the new administration made the choice to repeal it.'

(c) ***Weitere Vorhaben wie die Teil-Absetzung der*** **(L1)**
further.PL.ACC projects-OBJ like the.F.ACC partial-repeal the.F.GEN
Obamacare *konnte er ebenfalls nicht verwirklichen.*
Obamacare could.3SG he also not implement-INF
'Nor could he implement further projects such as the partial repeal of the health insurance Obamacare.'

4.2.3. *Prefield IS Status*

The underuse of object fronting suggests that learners rely on V2 sentence patterns that do not lead to target-like language use. However, the fact that learners' utterances could sound more target-like does not entail that learners organize and structure information in a purposeless fashion resulting in a lack of textual coherence. The use of alternative strategies to anchor sentences in discourse and make discourse processing less choppy constitutes a first argument against the assumption that learners fail to calibrate syntax to discourse requirements. This assumption seems also weakened by the frequency of given constituents in learners' prefields, comparable to that of German natives (χ^2 = 0.052, df = 1, p = .86).

Table 7. Givenness status of prefield constituents

	L2 German (*n*=276)	**L1 German** (*n*=323)
Given	90 (32,6%)	103 (31,9%)
New	149 (54%)	131 (40,5%)
Bridging	37 (13,4%)	89 (27,6%)

Learners appear to identify the prefield as a position dedicated to the repetition of S-1 constituents. However, difficulties arise when it comes to using the prefield as a transition between given and new, i.e. as an appropriate position to initiate smooth thematic shifts in discourse. A Chi-squared test for comparing the distribution of new (vs. the sum of all non-new) and bridging (vs. the sum of all non-bridging) referents in both groups of participants was run and a significant association between group and IS category was found in each case ($\chi^2 = 10.42$, df = 1, $p < .001$ for the category 'new'; $\chi^2 = 17.69$, df = 1, $p < .001$ for 'bridging'), with probability ratios close to 1 though – except for bridging referents, whose probability to occur in the L2 equals 0.49 (95% CI [0.345, 0.691]) times their probability to be used by natives.

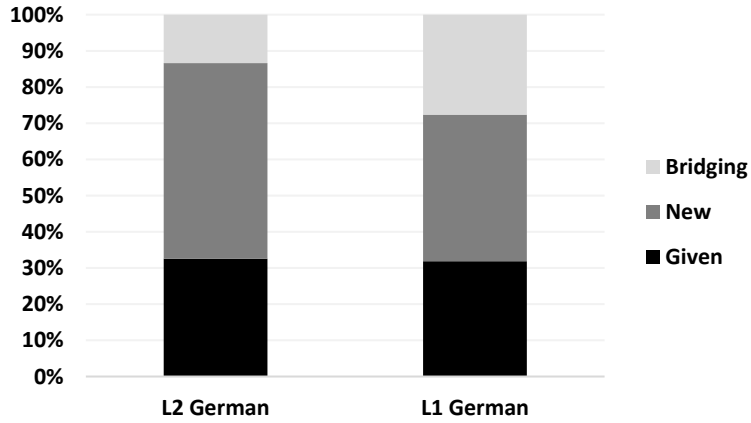


Figure 5. Classification of prefields according to givenness status

Furthermore, by focusing on the patterns of thematic progression employed by the participants, we can observe that learners are, compared to natives, more prone to reproduce thematic constituents from a sentence to the next (see table 8). These observations should however be approached with caution since the Chi-squared test revealed no statistically significant correlation between groups and S-1 IS segments for the three categories 'Theme S-1' ($\chi^2 = 3.16$, df = 1, $p = .09$), 'Rheme S-1' ($\chi^2 = 3.95$, df = 1, $p = .051$) and 'Entire S-1' ($\chi^2 = 0.11$, df = 1, $p = .84$).

Table 8. IS status of given and bridging prefields in S-1

	L2 German (*n*=127)	**L1 German** (*n*=192)
Theme S-1	70 (55,1%)	85 (44.3%)
Rheme S-1	46 (36,2%)	91 (47,4%)
Entire S-1	11 (8,7%)	16 (8,3%)

Following the taxonomy of thematic progression proposed by Daneš (1974), we can postulate an acquisition path leading learners from low-level patterns of constant continuous theme (Theme S = Theme S-1), as illustrated in figure 6 (from the L2 dataset) to advanced, more natural-like sounding patterns of simple linear (or zig-zag) progression (Theme S = Rheme S-1), as represented in figure 7 (from the L1 dataset). It should be stressed that figures 6 and 7 do not intend to provide representative examples of all patterns of thematic progression found in both L1 and L2 datasets. Rather, both illustrations count as the two extremes on a continuum from rigidity to flexibility in terms of thematic progression and, as such, define a developmental sequence leading to the ability to insert smooth shifts of attention (see Firbas 1992) in the discourse under construction.

Theme 1	*Rheme 1*
Donald Trump	*hat mehrere Kritik von der ganze Welt erhalten.*
'Donald Trump	has received much criticism from the world.'
Theme 2	*Rheme 2*
Er	*kommt von der republikanischen Partei.*
'He	comes from the republican party.'
Theme 3	*Rheme 3*
Er	*hat während der Wahlkampagne „verückt" Dinge gesagt*.
'He	said crazy things during the election campaign.'
Theme 4	*Rheme 4*
Er	*möchte ein Mauer zwischen Mexiko und den USA gebaut.*
'He	would like to build a wall between Mexico and the USA.'
Theme 5	*Rheme 5*
Er	*möchte auch eine andere wirtschaftliche Entwicklung bilden.*
'He	also wants to generate a new economic development.'
Theme 6	*Rheme 6*
Er	*möchte auch eine Verschärfung der Migrationspolitik bilden*.
'He	also wants to harden American immigration policy.'
Theme 7	*Rheme 7*
Er	*hat sofort als ein rassistisch und gefährlich Politiker gewesen dargestellt.*
'He	was immediately considered as a racist and dangerous politician.'

Figure 6. Pattern of constant continuous theme (L2)

In that sense, learners' underuse of bridging strategies, added to their preference for theme repetition prompts us to approach the SD challenge not only on the level of discourse coherence, but also in terms of communicative dynamism. Cook (1989: 64) provided a succinct and appropriate description of those two issues, which helps us circumvent the difficulties encountered by L2 participants: "Communication might be defined as the conversion of new information into given information, and a successful communicator as a person who correctly assesses the state of knowledge of his or her interlocutor. If we misjudge, and treat what is given as new, we will be boring; in the reverse case when we assume the new to be given, we will be incomprehensible".

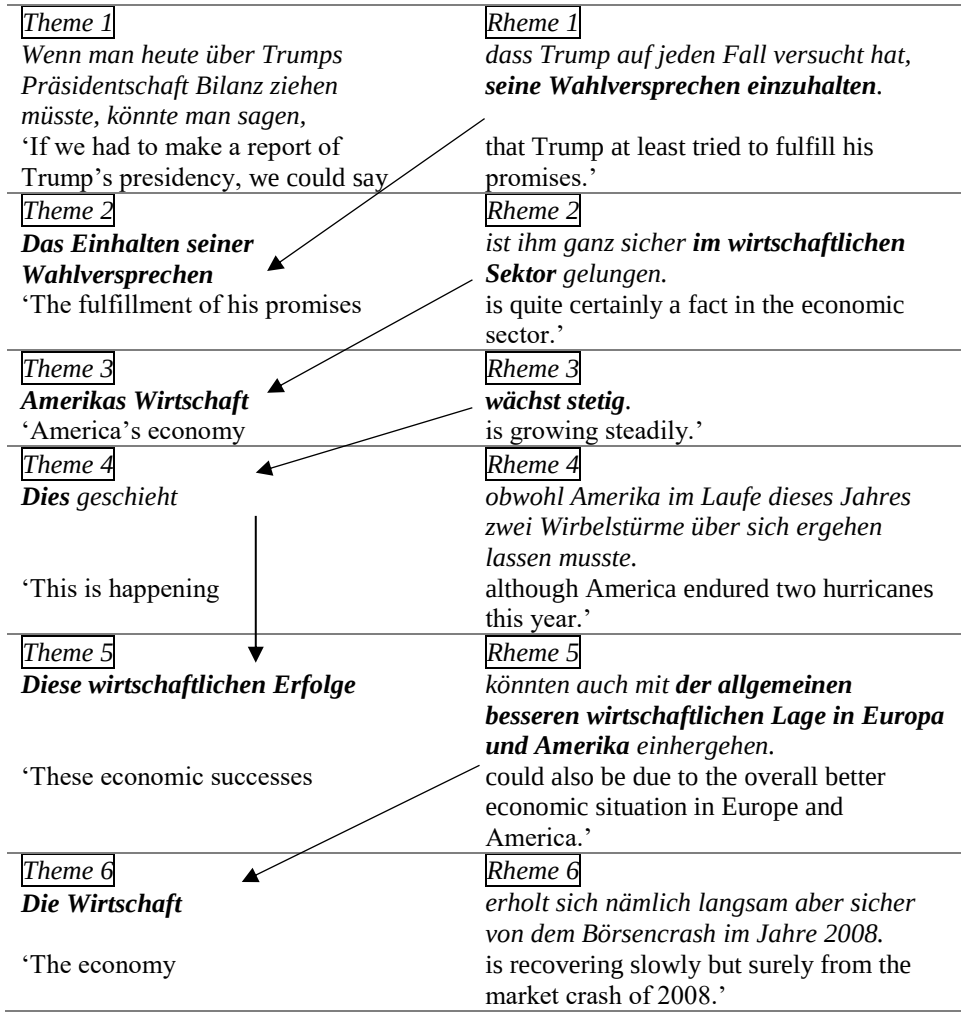


Figure 7. Pattern of simple linear/zig-zag thematic progression (L1)

Nevertheless, it is also important to emphasize that our group of intermediate to upper-intermediate learners already shows a good feel for pushing the

communication forward and taking up new information as theme in following utterances. The results reported above indicate in fact that the gap between L1 and L2 participants is limited, at least compared to differences in terms of grammatical functions or semantic roles. The use of alternative strategies that learners can transfer from their L1 also points to a capacity to tackle IS constraints in the foreign language, even if this sensitivity to IS does not translate into the use of German-specific linguistic forms.

4.2.4. *Morphological accuracy*

As stated above, the declension paradigm for German substantives does not allow us to make generalizations based on the extent of our dataset. However, the repetition of specific errors in the use of accusative case endings for masculine nouns suggests that learners still have a deficient awareness of the connection between case marking and grammatical function. Due presumably to a persistence of L1 influence, learners have made a habit of associating grammatical functions to specific clause positions. As by reflex, they attribute the accusative ending *–en* to constituents immediately following V2, even if those constituents operate as clause subjects. This is illustrated by the following examples:

(19) *Eine Erklärung dafür ist sehr wahrscheinlich* ***den Anstieg***
a-F.ACC explanation for.it is very likely the.M.ACC increase-SBJ
der Einstellungen in einigen Sektoren.
the.PL.GEN appointments in some sectors
'An explanation for it is most likely the recruitment increase in some sectors.'

(20) *Dieses Versprechen hat* ***den Präsident*** *auch gehalten.*
This.N.ACC promise has the.M.ACC president-SBJ also honoured-PTCP
'The president has also honoured this promise.'

(21) *Deshalb wird* ***den Präsident*** *von Finanzierung profitieren,*
Therefore will.3SG-FUT the.M.ACC president-SBJ of funding benefit-INF
damit er die Mauer bauen kann.
so.that he the.F.ACC wall build-INF can.3SG
'Therefore, the president will benefit from funding in order to build the wall.'

Learners' use of case endings as default forms matching specific sentence positions (nominative case for prefield elements and accusative case for constituents after V2) tells us much about the crucial impact of the inflection system of a foreign language on the learnability of SD correspondence rules. In line with Hopp (2009), who demonstrated that at non-advanced levels Russian learners showed a better command of German scrambling than Dutch and English learners[3], L1 morphosyntactic features appear to be an area worth looking into in

[3] Unlike Dutch and English, German and Russian have a rich system of morphological case marking.

order to explain the absence of some IS sensitive patterns (e.g. object fronting) in L2 productions.

5. Discussion

The aim of the present study was to investigate the proficiency of intermediate to upper-intermediate learners of German (L1 French) at the SD interface. More specifically, it sought to determine whether learners adapt the form of their utterances to the givenness status of discourse referents and, if so, whether the patterns they choose match those used by native speakers. The analysis of L2 productions in relation to L1 data pointed to a significant underuse of object fronting, a type of structure favored by natives to mark syntactic objects as appropriate transitions to preceding discourse. However, the underuse of object fronting in L2 data does not translate in an equivalent degree of underperformance regarding the positioning of given referents in the prefield. Firstly, this is due for a great deal to a preference in learners' productions for patterns of thematic progression based on the repetition of themes from sentence to sentence. Secondly, it also reflects the use of compensation strategies, which learners model on L1-familiar expressions of thematic organization. In line with these findings, the investigation of learners' performance in SD allowed us to identify two thresholds whose crossing may lead to increased naturalness, dynamism and coherence in L2 writing.

5.1. Crossing from one level of representation to the other: the issue of computational difficulties at interfaces

As suggested by learners' preference for patterns of theme repetition as well as their limited resort to bridging strategies in prefields, the coordination of syntactic and discourse constraints may be subject to computational difficulty in L2 productions. Discourse-related syntax often involves, as outlined in the introduction, the production of non-canonical word orders, which, as such, request learners to integrate a more complex set of information, including but not limited to syntactic constraints. However, learners' tendency to replicate structures over portions of discourse goes hand in hand with a pronounced preference for unmarked syntactic options. The unmarked syntactic option obeys a series of default rules (subject first, agent first) that learners tend to overuse at the cost of discourse organization. In other words, certain discourse contexts call for a modification of the linear structure and the underuse of linear modification in L2 texts suggests that learners "fail to see the textual wood for the trees of sentence grammar" (Hawes 2015: 94).

Why is it, then, that L2 writers, who are undoubtedly accustomed to syntax-IS mappings in their L1, encounter such difficulties in adjusting word order to discourse context? Building on classical cognitive models of written language production (Hayes 1996; Kellogg 1996), an answer lies most likely in the impact

of L2 encoding and monitoring constraints. When learners engage in writing tasks, they face the challenge of translating the planned content into well-formed strings of words. Unlike natives, L2 writers have to direct increased resources to (a) translation operations such as lexical retrieval and morphosyntactic encoding and (b) monitoring and revising operations to ensure the accuracy of morphosyntax, spelling and punctuation (see Shaw & Weir 2007: 39-42). As a result, learners may be so monopolized by low-level issues of grammar and word finding (see Van Waes & Leijten 2015) that they are left with few working memory resources to deal with higher level aspects such as discourse organization (Chenoweth & Hayes 2001; Schoonen et al. 2003). In sum, in L2 writing, encoding and revision progress on a word-to-word, clause-to-clause and sentence-to-sentence basis, with the consequence that it slows production and causes learners to overlook the discourse level. Knowledge of SD mapping rules that might be called upon in L1 writing may then remain underexploited when it comes to writing in a foreign language.

5.2. Crossing from one language to the other: the issue of typological distance

As previously stated, the underuse of object fronting in L2 data, i.e. learners' preference for unmarked subject first structures, points to a limited awareness of the functioning of the target language grammatical system. Concretely, the hypothesis emerging here is that learners' low flexibility in constituent ordering is the logical consequence of a lack of insight in the role of morphology in disambiguating syntactic functions. This implies learning difficulties and a more pronounced incidence of L1 effects in proportion to the typological distance between the L1 and the L2 (Giacolone Ramat 2003). It has been noted several times that inflectional morphology constitutes the "bottleneck" of L2 acquisition (Slabakova 2006), since it confronts learners with mechanisms for encoding functional categories which not only apply to linear structure, but also at the word level. In other words, learners exhibit a representational deficit in morphosyntax, leading in turn to the overuse of default structures and the necessity to employ L1-familiar compensation strategies to improve discourse coherence.

The possibility to go against this representational deficit may presumably depend on the accessibility, i.e. transparency, of L2 grammatical features in the input (Ellis 2002; Rast 2008). More specifically, since morphological richness is the trigger for word order flexibility, learners' task is to gain awareness of the connection between inflection forms and grammatical functions as encountered in the input. However, the challenge is here even more demanding given the high amount of syncretism and case-neutralization observed in the German inflectional paradigm.

6. Conclusion

In this article, we have investigated how (upper-)intermediate learners of German (L1 French) make use of the sentence prefield for information-structural purposes. Regarding the use of syntactic patterns in writing, the comparison with natives' preferences has revealed that learners have difficulty in accessing the target-language system to adjust sentence form to discourse context. Learners' command of narrow syntax constraints like V2 is largely target-like. Yet, when we look at prefield constituents, L2 data exhibit a strong preference for unmarked patterns (subject first, agent first), which corresponds to an underuse of discourse-related structures involving object fronting. On the level of information structure, the analysis of prefields has shown that learners face challenges in linking sentence production with higher-level constraints to enhance textual coherence and communicative dynamism. The underuse of bridging categories before V2 and a preference for patterns of theme repetition were identified as complementary indicators of the difficulty to articulate sentence grammar and discourse functions in L2 writing. The computational complexity inherent to the syntax-discourse interface as well as the typological distance between source- and target-language systems were discussed as explanatory factors to account for the gap between proficiency in narrow syntax and command of syntax-discourse mappings.

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