# 9 Acquiring V2 in declarative sentences and constituent questions in German as a second language

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## 1. Introduction

German is a well-studied language within the PT framework and its predecessor, the Multidimensional Model (cf. Meisel, Clahsen & Pienemann 1981; Clahsen, Meisel & Pienemann 1983; Pienemann 1981, 1984, 1989, 1998; Clahsen 1984; Ellis 1989; Boss 1996, 2004; Jansen 2008; Baten 2013). However, no study has yet focused on constituent questions specifically for German, nor tested the Topic Hypothesis (Pienemann, Di Biase & Kawaguchi 2005) for this language or indeed its updated version, the Prominence Hypothesis, proposed in chapter 1, this volume. Furthermore, no study has yet conceptually and empirically compared the development of interrogative and declarative sentences, as proposed in this volume, in order to assess whether this generates any significant theoretical consequences. This chapter aims at filling these gaps on the basis of data collected for a study of the development of German syntax by Jansen (2008). Since the 2008 corpus includes content questions, we have the opportunity to investigate their development and compare it with that of declaratives in those learners who do produce both. In what follows, we will first present some relevant principles of German syntax, and hypothesize the developmental hierarchies for declaratives and interrogatives according to the Prominence Hypothesis (§ 2). There follows a brief consideration of the literature on the acquisition of German word order (§ 3) reporting, in particular, on results of two historically significant studies conducted within the PT traditional background (i.e., ZISA/Clahsen, Meisel & Pienemann 1983; Pienemann 1989). Then, in (§§ 4-5), the methodology of this study and the results of the current investigation on content questions will be presented, along with those for declaratives in Jansen's (2008) study, as guided by two main research questions:

- Do learners of German L2 follow the developmental schedule according to the Prominence Hypothesis?
- Does noncanonical word order develop in both constituent questions and declaratives at the same time and in the same way?

Finally, in the discussion (§ 6), we will summarise and interpret the results of all three studies (i.e., ZISA, Pienemann, and our own), and conclude that learners of German L2 (a) indeed follow the PT schedule, (b) clearly begin their production of noncanonical word order in constituent questions much earlier than in declaratives, and (c) appear to produce questions with noncanonical word order categorically at their onset, whereas with declaratives the path from emergence to acquisition seems much more gradual.

## 2. German syntax and the Prominence Hypothesis

There are two main peculiarities in German word order: German is a so-called 'verb-second' (V2) language, and its canonical word order differs according to whether the lexical V is inflected or not. Let us look at these in turn.

First, in the main clauses of a V2 language the inflected V obligatorily occupies the second position in c-structure. A corollary of V2 is that XP SVX is ungrammatical in German, as in (1), because this would force the V into third position.

(1)	*heute	ich	spiele	Tennis
	XP	SUBJ	V	OBJ
	today	Ι	play	tennis

Hence, if any constituent bearing a function other than SUBJ (whether ADJ or argument function) occupies the sentence-initial position usually associated with SUBJ/TOP, SUBJ must follow the finite V, as in (2a-b).

(2)	a.	heute	spiele	ich	Tennis
		TOPADI	V	SUBJ	OBJ
		today	play	Ι	tennis
		[today I p	lay tenni	s]	
	b.	Tennis	spiele	ich	heute
	b.	Tennis TOP <sub>OBI</sub>	spiele V	ich SUBJ	heute ADJ
	b.	Tennis TOP <sub>OBJ</sub> tennis	spiele V play	ich SUBJ I	heute ADJ today

Second, as pointed out by Zobl (1986), canonical word order in German is SVO in main clauses with lexical Vs only, whereas the lexical V is clause-final in main clauses with AUX-V or MOD-V, as shown in (3a-b).

- (3) a. ich spiele Tennis SUBJ V OBJ [I play tennis]
  - b. ich habe Tennis gespielt SUBJ AUX OBJ V [I have played tennis]

Thus, learners with a V-last L1, such as Turkish may first hypothesize that the V-last they hear in the input is canonical for German (Zobl 1986) as found, for instance, by Haberzettl (2005). We will come back to this point in (§ 3) below.

With regard to constituent question formation, German is a fronting language,<sup>1</sup> which means that FOC, the discourse function associated with question words or phrases (QP) is expressed, syntactically, in sentence-initial position (Mycock 2007). Parallel to the DF TOP (for a brief outline of these categories, cf. § 2.2, ch. 1, this volume) in declarative sentences, the DF FOC expressed in the QP can be linked to any GF, whether ADJ as in (4a), or argument as in (4b).

(4)	a.	wann	spielst	du	Tennis	?
		FOC <sub>ADI</sub>	V	SUBJ	OBJ	
		when	play	you	tennis	
		[when do	you play	tennis?]		
	b.	was	spielst	du	heute	?
		FOC <sub>OBI</sub>	V	SUBJ	ADJ	
		what	play	VOU	today	
		what	piay	you	today	

Thus the V2 rule applies to both topicalised declaratives and constituent questions. That is, SUBJ is postverbal whenever TOP or FOC, bearing any other GF, is in sentence-initial position.

Let us now hypothesise how learners acquire the German V2 rule in declaratives and constituent questions – or, in other words (i.e., those used in this volume), how they learn to move beyond the German SVO/SOV canonical word

<sup>1</sup> No distinction is made here between single-fronting and multiple-fronting languages (cf. Mycock 2007).

order. Based on the universal progress outlined with the Prominence Hypothesis in chapter 1, this volume, we illustrate the development of German declaratives and constituent questions in (5).

STAGE	DECI	ARATIVE SENTENCES	CONS	CONSTITUENT QUESTIONS			
	STRUCTURE	EXAMPLE	STRUCTURE	EXAMPLE			
NONCANONICAL WORD ORDER	TOP V S	Tennis spiele ich heute [tennis play I today] heute spiele ich Tennis [today play I tennis]	FOC V S	was spielst du heute? [what play you today?] wann spielst du Tennis? [when play you tennis?]			
XP <sub>DF</sub> CANONICAL WORD ORDER	TOP S V	Tennis ich spiele heute [tennis I play today] heute ich spiele Tennis [today I play tennis]	FOC S V	was du spielst heute? [what you play today?] wann du spielst Tennis? [when you play tennis?]			
	S V O ich spiele Tennis [I play tennis]		SVO?	du spielst was? [you play what]?			
CANONICAL WORD ORDER	SOV	ich Tennis spiele [I tennis play]	SOV?	du was spielst? [you what play?]			
	S V	ich spiele [I play]	SV ?	du spielst? [you play?]			
	formulas	ich heiße Helmut [my name's Helmut]	formulas	wie geht's? [how are you?]			
LEMMA ACCESS	single words	wir spielen [we playing]	single words	was spielen? [what playing?]			

(5) Developmental stages hypothesised for German L2 syntax based on the Prominence Hypothesis: declaratives and constituent questions

For declaratives, we hypothesise that the German canonical word order, SVO or SOV, will emerge first. Topicalization followed by canonical order will come about next, followed finally by noncanonical word order. For constituent questions, the developmental hypothesis is parallel to that of declaratives. That is, the single question word stage is followed by a stage where an SVO or SOV order is used with insitu QP FOC. The following stage will see a QP FOC in first position, followed by canonical word order. This is not standard German, but L2 learners are hypothesized to go through this stage regardless of whether their L1 exhibits V2 or not (cf. Pienemann & Håkansson 1999; Pienemann, Di Biase, Kawaguchi & Håkansson 2005). Finally noncanonicity will emerge.

#### 3. Literature review

Before dealing with the development of questions we should briefly refer to the development of German canonical word order in L2 learners. As alluded to above, in her longitudinal study of four L2 German child learners, two of whom with Turkish L1, Haberzettl (2005: 159) finds that in their early data samples finite Vs are predominantly in final position; from this she concludes that her results for the two Turkish learners do not support PT. On the other hand, data of an adult Turkish learner from an earlier longitudinal study by Klein & Carroll (1992: 162-172), re-analysed by Schwarz & Sprouse (1994), shows that inflected V forms appear systematically in second position, and uninflected forms in final position. Furthermore, in their longitudinal analysis of an Italian learner of German L2, Klein & Carroll (1992: 131) observe "some degree of uncertainty", with both SVO and SOV occurring in the same utterances. How do all these findings affect our proposed schedule in (5)? Contrary to Haberzettl's interpretation, her data does not contradict PT because, unlike past interpretations of SVO as the universal canonical order, PT now hypothesises language-specific canonical orders (cf. § 4.2.1, ch. 1, this volume), and for German we hypothese both the SOV and SVO orders. Neither, of course, do any of the Haberzettel's, Klein & Carroll's and Schwarz & Sprouse's findings contradict PT's Developmentally Moderated Transfer Hypothesis (Pienemann, Di Biase, Kawaguchi & Håkannson, 2005) because German canonical order includes both the L1 Turkish SOV and the Italian SVO.

With regard to the development of questions, to our knowledge there are no studies focusing specifically on their acquisition in L2 German, although two historically significant studies do include relevant data. These are (a) the ZISA cross-sectional study on the naturalistic acquisition of German by 45 learners from Romance language backgrounds (Meisel, Clahsen & Pienemann 1981; Clahsen, Meisel & Pienemann 1983), and (b) a longitudinal study on the instructed acquisition of German by three university learners from an Australian English background by Pienemann (1987, 1989, 1998). The explanatory frameworks applied to these two studies are different from the one proposed here. Whereas this volume uses LFG, which is a nonderivational approach, studies (a) and (b) assume a grammatical framework that is derivational (transformational), and hence group what for us is the noncanonical word order of declaratives and questions, emerging at the upper stage of the developmental path, under the category of 'inversion'. Next we summarise the main results of these studies.

In (6) below we present cross-sectional data for the 25 learners, among the 45 investigated in the ZISA project, who produce constituent questions. Our table is constructed on the basis of two ZISA tables in order to facilitate the comparison between questions and declaratives, and further reorganised in order to make it more reader friendly in the context of this volume. In this connection, a couple of

points need to be raised. First, unlike all studies in this volume and Jansen's presented below, the ZISA analysis includes sentences with copula (cf. examples (2) and (7) in Clahsen, Meisel & Pienemann 1983: 128-129). Second, the ZISA study only includes the 'inversion' data, expressed as ratios of the application of the SUBJ-V inversion rule. So, '1' means that 'inversion' is categorically applied (100% of the times), 0.25 (or other fractions) means that the rule is applied 25% (or n%) of the times; and '0' that it is never applied (0%); an empty cell means no context for the rule application is produced. Because only obligatory contexts were included originally, we assume that nonapplication of 'inversion' (marked as 0 in the table) represents the production of structures of our XP canonical word order stage. Note also that the ZISA tables distinguish whether learners produce five or more contexts for 'inversion', or less than five. In the latter case the ratio is represented in brackets in (6) below as in the original ZISA tables. Finally, we maintain the original division in three columns and the original labels, but we add a row with

(6) Application of the SUBJ-V inversion rule (i.e., production of structures at the n	oncanon-
ical word order stage) in questions (first column) and declaratives (last three co	lumns) –
Reconstructed from Clahsen, Meisel & Pienemann (1983: 130-134, 145)	

ORIGINAL LABELS	WH-QUESTION	ADVERB	TOPI1	topi2	
OUR LABELS	FOC <sub>wh</sub> -	$\text{TOP}_{\text{adverb}}$	$\text{TOP}_{\text{NP}}$	$\text{TOP}_{\text{SUB. CLAUSE}}$	
LEARNERS					
JANNI	1	1	1	1	
Agostino	1	1	1	1	
PINTOS	1	1	(1)	(1)	
BENITO	1	1	1	0	
EDUARDO	1	.94	(1)	(1)	
MICHELE	1	.92	(1)	(1)	
PIETRO	1	.88	(1)	.83	
PEPE	1	.84	(1)	(1)	
MARIA I.	1	.70	(1)	1	
GIOVANNI	.67	1	1	(.50)	
MARIA S.	(.33)	1	(1)	1	
CETTINA	(1)	.40			
CARLO	1	.23	0	(.33)	
PEDRO	(.50)	.57		0	
ANTON	.75	.28			
FRANCO	.17	.18			
Toni	(0)	.43			
LEONARDO	(0)	.25			
CARMELA	(0)	(.67)			
LOLITA	(0)	(1)			
ANTONIO	0	0	0		
PASCUA	0	0	0		
ANGELINA	(0)	0			
ELISEO	(0)	0			
ROSEMARIE	(0)	0			

the labels used in this volume to clarify what corresponds to what, although we will not labour on the significance of the different functions of TOP.

The results shown in (6) support the Prominence Hypothesis because five learners use XP canonical word order exclusively (Antonio, Pascua, Angelina, Eliseo and Rosemarie), three learners (Janni, Agostino and Pinto) use noncanonical word order categorically in both declaratives and questions, and the remaining 17 learners use noncanonical word order at least sometimes. With respect to whether or not noncanonicity develops at the same time and in the same way in questions and declaratives, the table shows that XP canonical order is either copresent or entirely absent in declaratives and questions in all learners with the exception of four (Toni, Leornardo, Carmela and Lolita), who produce noncanonical word order in declaratives but not in questions. So, at least for these latter four learners, the table marks the emergence of noncanonicity for declaratives before questions. We note however that, after emergence, many more learners (11 of them) show categorical use of noncanonicity with questions, whereas only 4 (Janni, Agostino, Pintos, Maria S.) show categorical use with declaratives. We will take up this point in our discussion below.

In (7) we present the results of Pienemann's (1989; also 1987 and 1998) oneyear longitudinal study of three ab-initio Australian university learners of German, which he conducted in order to compare their development to that of the naturalistic learners investigated in the ZISA cross-sectional study. As the grey area in the table shows, however, only one of his three learners was recorded for the whole year. Pienemann's data has been treated here in the same way as ZISA's have in (6).

RNER	ORIGINAL	OUR							WI	EEKS						
LEAI	LABELS	LABELS	1	3	5	7	9	11	13	15	17	19	21	23	25	27
EVEN	PP TOPI 2 TOPI 1	TOP <sub>ADVERB</sub> TOP <sub>SUB. CLAUSE</sub>				0	0	(.5)	0	0	0	0	0	0	0	0
$\mathbf{S}_{\mathbf{I}}$		TOP <sub>NP</sub>		-								(0)				(1)
	Q-PRO	FOC <sub>wh</sub> -		.5	1	1	1	.75	1		1			1		1
Ł	PP TOPI 2	TOP <sub>ADVERB</sub> TOP <sub>SUB, CLAUSE</sub>				0		0	0	0	0	0				
ß	TOPI 1	TOP <sub>NP</sub>						0	0							
	Q-PRO	FOC <sub>wh</sub> -				1	1	1	1	1	1	1				
VIVIEN	PP TOPI 2 TOPI 1	TOP <sub>ADVERB</sub> TOP <sub>SUB. CLAUSE</sub> TOP <sub>NP</sub>			(0)											
	Q-PRO	FOC <sub>wit</sub> -	1	1		1	(0)									

(7) Application of the SUBJ-V inversion rule (i.e., production of structures at the noncanonical word order stage) in questions and declaratives – ratio figures from Pienemann (1989: 68-70)

Also the results from Pienemann's learners support the Prominence Hypothesis in so far as the learners reach the XP canonical word order stage (marked with a 0 ratio in the table) before or at the same time as the noncanonical word order stage (Vivien is an exception to this but, significantly, only in questions). Furthermore, noncanonicity emerges in questions long before declaratives in all three instructed learners, unlike in ZISA's cross-sectional study of naturalistic learners. In fact, all declaratives are produced without 'inversion' by the three learners, with the only exception of Steven, who produces one or two declaratives with 'inversion' in week 11 and then another few in the very last week, marked respectively with the ratios of .5 and 1.<sup>2</sup> Remarkably, also, noncanonicity is virtually categorical in questions, as the exceptions are rare and concern only the readings for weeks 3 and 11 for Steven and week 9 for Vivien.

#### 4. The study

Our study on content questions in German L2 comprises a subset of the 16 learners who produce them out of the original 21 in Jansen's (2008) study, which dealt with declaratives only. All 16 learners are adult native speakers of English, ranging in age from 18 to 49 years; 8 are female and 8 male, and they are all students enrolled in a German course at an Australian tertiary institution. In terms of length of instruction, 10 learners (the first from left to right in (8) below) would be comparable to Pienemann's (1989) learners at week 13 because they had one semester of instruction. Only two of these learners have been to a German speaking country for one or two weeks as tourists. As for the remaining 6 learners, one of them (CR) had studied German for 3 semesters, and the other 5 (rightmost in the table) had studied the language for 5 semesters, including topical courses, such as literature and culture studies, delivered in German. Exceptionally, LD had completed a Science German course, had a more varied instructional background in German, including private tuition, and at the time the sample was taken was teaching a beginner German class in school. None of the learners had significant exposure to naturalistic spoken input, such as during conversation in a bilingual German-Australian home, or instruction in an immersion setting. However, many indicated that they had occasional exposure to naturalistic input outside of class, such as watching German films, reading in German or conversing with other nonnative speakers of German.

<sup>2</sup> The general lack of raw numbers in the original studies (both ZISA's and Pienemann's) is rather unfortunate. In these two cases, however, we can desume the exact numbers of these occurrences from the original study.

To elicit the data, learners were asked to meet and have a conversation with a native speaker of German, whom they had never met before. The topic of the conversation was "getting to know one another". The declared purpose was to "provide a speech sample for a research project on second language acquisition". It was emphasized, to both the learners and the native speakers, that although the researcher was interested in a sample of the learner's speech this should not encroach on spontaneity, the conversation should not be like an interview, and learners too were expected to ask questions. The conversations lasted about 45 minutes. They were audio recorded and transcribed for analysis.

In line with current PT analyses, and in contrast with the two studies considered in our literature review above (i.e., Clahsen, Meisel & Pienemann 1983 and Pienemann 1989), only sentences containing a lexical V are included in this study to the exclusion of copular sentences (e.g., *es ist gut* ['it's good']) and presentatives (e.g., *es gibt nichts* ['there is nothing']). Excluded are also sentences with expletive SUBJ (e.g., *es regnet* ['it rains']) and those which are structurally ambiguous or otherwise insufficiently audible to be analysed; verbatim repetitions from the interlocutor, and typical (semi)formulaic questions frequently used in early classroom communication (e.g., *wie sagt man x*? ['how does one say x?']). Repeated identical sentences (i.e., those with the same lexicon as well as the same structure) are counted once. Thus the total number of sentences analysed here for the 16 learners is 1372. Among them, 85 are questions, and 1267 are declaratives. Among the latter 1059 display canonical word order, and 208 have a nonSUBJ element as TOP in first position. Among the questions, only 2 have in-situ FOC, and the rest display fronted FOC.

#### 5. Results

Results of the analysis are illustrated in (8). The learners are referred to by a code and ordered according to the range of structures they actually produce. The leftmost column shows the structures with FOC representing QPs, which may be arguments or ADJs; TOP represents fronted elements other than SUBJ in declaratives, which also may be arguments or ADJs. The numbers in the cells represent the frequency of the structure in the data. For instance, reading the learner YJ's declarative results from bottom to top, we see that she produces 62 structures with canonical order, 4 XP<sub>TOP</sub> with canonical order and 3 XP<sub>TOP</sub> with noncanonical order. As for questions, she produces two (in-situ) canonical word order questions, and three XP<sub>FOC</sub> with noncanonical order.

As (8) clearly shows, all learners produce canonical SVO/SOV sentences, and do so in greater numbers than all the other types of structures. Results for declaratives show that when learners add a topicalised element to their sentences all of

LEARNERS	СР	RA	KP	RB	LP	SR	MR	RY	RD	YJ	CR	СТ	ST	LD	DS	PJ
					D	ECL	ARA	TIVI	E S							
TOP V S								1	1	3	1	12	6	24	24	20
TOP S V	8	11	8	6	10	12	11	2	9	4	7	9	1	3	11	4
SVO / SOV	22	80	52	90	58	49	32	38	37	62	46	94	56	93	168	82
CONSTITUENT QUESTIONS																
FOC V S	1	1	4	3	9	8	9	6	7	3	8	9	2	5	2	6
FOC S V																
S V FOC										2						

(8) Cross-sectional study of the learners' development of German: declaratives and constituent questions (expanded from Jansen 2008)

them produce ungrammatical fronted XP with canonical word order. Canonical order is always produced as SVO, as in (9a-b), except when SR produces also SOV once, shown in (10). However, 9 of the 16 learners produce also targetlike V2 structures in declaratives, as in (11a-b), and have thus reached the noncanonical word order stage.

- (9) a. RA wenn wir sind in Deutschland wir findet ein family TOP<sub>ADJ</sub> SUBJ V OBJ when we are in Germany we finds a family [when we are in Germany we will find a family]
  - b. CR viele Freunden ich habe in Adelaide TOP<sub>OBJ</sub> SUBJ V ADJ many friends I have in Adelaide [I have many friends in Adelaide]
- (11) a. ST in Europa lernen viele Leute viele Sprachen TOP<sub>ADJ</sub> V SUBJ OBJ in Europe learn many people many languages [In Europe many people learn many languages]

b. CR 1972 habe ich nach England gegegen TOP<sub>ADJ</sub> AUX SUBJ ADJ V 1972 have I to England gone [in 1972 I went to England]

As can be appreciated from these examples, the range of structural exponents of TOP is wide, including: subordinate clauses as in (9a), NPs as in (9b), adverbs as in (10), and PPs as in (11a).

Results with questions differ significantly, and point to a strong role for FOC in bringing about noncanonical word order. First, only one learner (YJ) uses in situ FOC, as in (12), which belongs to the canonical word order stage. Interestingly, this learner also produces a FOC preceded by ADJ, as shown in (14), the only structure of this type in the whole data set.<sup>3</sup>

(12) YJ	du arbeitest	da	seit wieviele Jahren?
	SUBJ V	ADJ	FOC <sub>adi</sub>
	you work	there	since how many years?
	[you have been	working	there for how many years?]

Second, whereas all 16 learners produce ungrammatical declaratives with TOP SVO structures, none of them produce questions with ungrammatical FOC SVO structures. Thus not only have they all reached the higher stage, but their word order is also applied categorically, including when they produce marginally acceptable structures, as MR in (13), as well as complex structures, as in (14), where FOC is preceded by TOP<sub>ADI</sub>.

(13) MR	wie lange FOC <sub>ADI</sub>	hast AUX	Sie SUBJ	gelib V	t ins AD	Australisch J	?
	how long	have	you	lived	in A	Australian	
	[how long	have you	been	living	in Aus	tralia?]	
(14) YJ	danach TOP <sub>ADI</sub>	was FOC <sub>OF</sub>	will MC	lst DD	du SUBJ	machen? V	
	after that	what	wai	nt	you	do	
	[after that	what do	you wa	ant to	do?]		

<sup>3</sup> This complex structure, together with its accurate morphology, points to a more mature use of in-situ FOC questions, which is not unknown in native speakers speech (cf. Bettoni & Ginelli's comments with regard to Italian L2 in-situ questions, ch. 8, this book). Cf. also this same learner's complex structure in (14).

As with declaratives, also with interrogatives the range of structural exponents of the fronted element is wide: question phrases in (12)-(13), as well as question words in (14), may function as ADJ or argument GFs.

Admittedly, our figures are not always robust, as some of the learners (e.g., CP and RA) produce only one question with noncanonical word order. However, questions such as those in (15a-b) appear to be constructed online (i.e., nonformulaically) because a subsequent check confirmed that their Vs (i.e., *wohnen* ('live') and *gehen* ('go') respectively) are used also in other structural contexts.

FOC <sub>ARG</sub> V SUBJ where live you [where do you live?] b. RA wo gehen wir ? FOC <sub>OBL</sub> V SUBJ where go we	wo	wohnst	du ?	
where live you [where do you live?] b. RA wo gehen wir ? FOC <sub>OBL</sub> V SUBJ where go we	FOCARG	V	SUBJ	
[where do you live?] b. RA wo gehen wir ? FOC <sub>OBL</sub> V SUBJ where go we	where	live	you	
b. RA wo gehen wir ? FOC <sub>OBL</sub> V SUBJ	[where do	you live?]		
b. RA wo gehen wir ? FOC <sub>OBL</sub> V SUBJ where go we				
FOC <sub>OBL</sub> V SUBJ	wo	gehen	wir ?	
where go we	FOC <sub>OBL</sub>	V	SUBJ	
where go we	where	go	we	
[where do we go? (he is asking himself aloue		> /1		
		wo FOC <sub>ARG</sub> where [where do FOC <sub>OBL</sub> where	wo wohnst FOC <sub>ARG</sub> V where live [where do you live?] wo gehen FOC <sub>OBL</sub> V where go	wowohnstdu ?FOCARGVSUBJwhereliveyou[where do you live?]wogehenwir ?FOCOBLVSUBJwheregowe

#### 6. Discussion

To recap, our cross-sectional study of 16 learners investigates the development of content questions in German L2 and compares the results both internally, with the development of declaratives, and externally, with relevant studies in German L2 such as ZISA's and Pienemann's. These two studies are different from ours not only because of their method of counting and presenting frequencies as ratios instead of raw figures, but also because they include copulas and presentatives. Significantly, however, a methodological approach proposed in this volume, but not yet applied empirically elsewhere (cf., however, the theoretical treatment of developmental syntax in English L2, § 3.1, ch. 2, this volume), is justified in the current study. We are referring to Bettoni & Di Biase's requirement for analytically sorting out questions from declaratives (cf. §§ 4.2.1 and 4.3, ch. 1, this volume) in order to clarify possible effects of different sentence types, such questions and declaratives, on timing of emergence and developmental patterns.

Our first research question asked whether or not the Prominence Hypothesis is supported for German L2. Results in all three studies, despite their differences in time, space and linguistic environment, are indeed compatible with the developmental schedule for German L2 based on the Prominence Hypothesis which we formulated comprehensively for both declaratives and questions in (5) above. In all cases where noncanonical word order emerges, it does so either at the same time, or after canonical word order.

Our second research question asked whether noncanonicity develops at the same time and in the same way in declaratives and in questions. The answer appears to be negative for both variables. In terms of time of emergence, non-canonicity in questions emerges long before than in declaratives. In Pienemann's longitudinal study, in one of the learners (Steven), noncanonical word order ('inversion', in his terminology) emerges in questions in week 3, and in declaratives in week 11. In the other two learners, it emerges in questions in week 1 (Vivian) and week 7 (Guy), and does not emerge at all in declaratives. This earlier emergence in questions is confirmed in the current cross-sectional study, where all 16 learners use noncanonicity in questions, but seven of them fail to do so in declaratives. In contrast, in four out of the 25 ZISA learners noncanonicity emerges in declaratives before it does in questions, thus providing some counter-evidence to the contrast between questions and declaratives in terms of timing of emergence. In sum, noncanonicity in questions precedes noncanonicity in declaratives (with the four ZISA exceptions).

In terms of developmental patterns, noncanonicity in questions appears to be categorical, whereas in declaratives there is a persistent survival of XP with canonical word order even in those learners who do produce noncanonical word order comfortably. Thus, the difference between questions and declaratives is actually dramatic. Not only do all the 16 learners in our study produce postverbal SUBJ with fronted FOC in questions, but they do so categorically. This finds strong similarities in Pienemann's study, where the number of contexts is generally robust, particularly so in Guy's figures. The number of contexts in the ZISA study also provides some support for noncanonical word order in questions to emerge in a categorical fashion, certainly more readily in questions than in declaratives. The laborious progress of 'inversion' in the presence of fronted elements had also been noted by Clahsen (1984) in his longitudinal study of three ZISA learners, who observed that it is a difficult rule to learn. What has not been noticed so far, however, is that such slow and noncategorical progress may be confined to declaratives.

What remains to be explained, then, is why categorical noncanonicity in word order emerges earlier in questions, and lags so far behind in declaratives. What is specific to questions that can account for this? A couple of reasons may be put forward, at least for German L2. An often invoked possible reason is L1 transfer. The informants in the present study and in Pienemann's are from an English-speaking background, and English requires noncanonical word order in questions but not in declaratives. However, English requires *do*-support for questions unless the lexical V is already supported by an AUX or MOD V. In

German, on the other hand, such *do*-support is unknown and the lexical V is in sentence final position in the presence of AUX or MOD V. So, in spite of some similarities, the differences seem to be quite significant, and transfer, if any, would require extra computations in working memory. Testing the transfer hypothesis would in any case require triangulation with at least one other language with no postverbal SUBJ in constituent questions (cf. the DMLT Hypothesis in Pienemann, Di Biase, Kawaguchi & Håkansson 2005). A second reason may be that unlike TOP in declaratives, FOC in questions is obligatory (Mycock 2007), and therefore reliable in the input and close to one-to-one form-function mapping (cf. Andersen 1993; Ellis & Collins 2009, among others). Moreover, and most significantly, FOC in constituent questions is lexicalised transparently through a small, closed set of items, whose lexical specification includes focus, namely the wh- question words (Horvath 1986: 188). By contrast, TOP can be lexicalised in a virtually infinite number of ways. Therefore, the input for TOP is not only less frequent but also highly variable. Note also that in the very frequent default declaratives TOP usually coincides with SUBJ, which occupies the first slot in c-structure. This contrasts with the obligatory postverbal position of SUBJ in constituent questions (the only exception being when SUBJ itself is questioned). Postverbal SUBJ may thus be computed as the default position for SUBJ in content questions.

### 7. Conclusion

The results presented in this chapter, including those of the historical studies, support the Prominence Hypothesis. They document a robust continuity in SLA studies, but they also show that further analytical work based on sound theoretical principles can bring out hitherto unsuspected insights. Thus the separation of declaratives from questions enables the identification of significant differences in the acquisition patterns of noncanonical word orders. These differences are, on the balance of evidence, first that noncanonical orders emerge in questions before they do in declaratives, as confirmed in Pienemann's (1989) longitudinal study, and second that noncanonical word order in questions in German L2 is appropriated categorically by Jansen's (2008) learners, nearly so by Pienemann's, and tendentially also by ZISA's (1983). Hence, acquisition patterns are different: predominantly categorical in questions, and predominantly gradual in declaratives, where the canonical word order of the lower stages persists alongside the target-like noncanonical one of the higher stage even in significantly advanced learners.

A limitation on this conclusion is that the data for categoriality in questions is small in some learners given the naturalistic nature of the data collection method.

More robust data collected with focused tasks would better test these early results. If this chapter offers some possible explanations for the differences in the acquisition of noncanonical word order in questions versus declaratives, further research may reveal whether different GFs (argument or nonargument functions) and different elements (words, phrases or subordinate clauses) linked to FOC or TOP do or do not play a role in such remarkable differences, and may help establish a more unified and theoretically grounded explanation.

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