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The role of verb-second word order for L1 German, Dutch and Norwegian L2 English learners: a grammar competition analysis

Abstract: This paper investigates the role of verb-second (V2) word order in second language acquisition. It addresses the question whether a first language (L1) that is a V2 language affects acquisition of a second language (L2) that is not a V2 language. To test this, the paper investigates the interpretation of *wh*-+particle constructions of L2 English speakers with L1 German, Dutch and Norwegian. The experiment shows a V2 effect in L2 English for these speakers, which, however, is not uniform in terms of amplitude across all speaker groups and thus strongly suggests that there is no generalized V2-parameter.

Zusammenfassung: In diesem Beitrag wird die Rolle von V2 (Verbzweitstellung) im Zweitspracherwerb untersucht. Im Mittelpunkt steht dabei die Frage, ob eine Erstsprache (L1), die eine V2-Sprache ist, den Erwerb einer Zweitsprache (L2), die keine V2-Sprache ist, beeinflusst. Um dies zu testen, untersucht das Papier die Interpretation von *wh*-+Partikel-Konstruktionen von L2 Sprechern des Englischen, deren L1 Deutsch, Niederländisch oder Norwegisch ist, und zeigt, dass in der L2 Englisch dieser Sprecher ein V2-Effekt nachgewiesen werden kann. Allerdings ist dieser Effekt für die unterschiedlichen Sprechergruppen unterschiedlich hoch, was nahelegt, dass es keinen generalisierten V2-Parameter gibt.

1 Introduction

German, Dutch and Norwegian are V2 languages. English may have had some V2 properties in its earlier stages but is no longer regarded as a V2 language today. However, it still has some residual V2 properties, for instance in questions (Rizzi 1990) and quotation contexts (Roeper 1999, 2016), and is thus sometimes characterized as a residual V2 language (Rizzi 1990). This paper investigates in how far an L1 that is a V2 language influences the acquisition of an L2 that is a non-V2/residual V2 language. In other words, we address the question in how far V2 can be unlearned in second language acquisition (SLA). It will be shown that V2 characteristics in L2 English of L1 speakers of German, Dutch and Norwegian are real, testable and quantifiable and very persistent even in advanced L2 speakers.

It will also be shown that the ‘V2 effect’ is stronger in L1 speakers of German than in L1 speakers of Dutch and almost non-existent in L1 speakers of Norwegian. These results challenge the idea of simple parameter resetting in SLA because unlearning V2, i.e. a simple switch from V2 in L1 to non-V2 in L2, would entail that L1 speakers of V2 languages show uniform characteristics in L2 English. We argue for a grammar competition/multiple grammar (GC/MG) analysis instead (Kroch 1989; Kroch/Taylor 1997, 2000; Roeper 1999; Yang 2003), which shares the assumptions of the full access/full transfer (FA/FT) hypothesis of Schwartz/Sprouse (1996), but argues against parameter resetting in SLA. Section 2 provides an introduction into GC/MG theory. Section 3 discusses the role of GC/MG theory in SLA in more detail and section 4 provides experimental data for GC/MG in *wh*-+particle constructions in L2 English. Section 5 concludes the paper.

2 GC/MG theory in diachronic linguistics and L1 acquisition

Grammar competition theory was first introduced in the context of diachronic linguistics (e.g. Kroch 1989; Kroch/Taylor 2000; Pintzuk 1999). Here Old English, which is traditionally classified as a language in which the object comes before the verb (OV language) (e.g. van Kemenade 1987; Kiparsky 1995; Fischer et al. 2000), is shown to also feature VO orderings in embedded clauses. These alternative orderings are accounted for under the assumption that two rules exist side by side in the grammar of Old English. One that generates the ‘traditional’ OV order and one that generates the verb-object (VO) order. Thus, the two rules exist within a single grammar and provide radically different and potential contradicting structures. This idea is further developed in Pintzuk (1999)¹ under the name Double Base Hypothesis (DBH). According to the DBH the two word orders attested in Old English can be ascribed to the presence vs. absence of verb movement from V to a higher functional projection and the availability of head-initial and head-final structures in both projections. The higher projection may be T/Infl (Tense or Inflection) (Pintzuk 1999) or some lower head, e.g. *v* (Roberts 1997; Fuß/Trips 2002). Either way, two radically different structures can be derived.

Roeper (1999) argues that GC effects can also be found in language acquisition and that this can be regarded as another indication of the frequently stated paral-

¹ Pintzuk presents her analysis in the generative framework of the theory of principles and parameters (see e.g. Chomsky 1981 and subsequent publications).

lelism between language acquisition and diachronic language development. In those contexts where a language exhibits seemingly contradicting properties that can only be derived by two conflicting rules, grammar competition is at work. Thus, in early L1 acquisition when children simultaneously produce the structures in (1a) and (1b) grammar competition is involved (*ibid*):

- (1) a. Him want ...
- b. He wants ...

Here, Roeper (1999) argues, the child switches between a minimal default grammar that derives the structure in (1a) with default Case-assignment on the pronoun and no agreement marker on the verb and the structure in (1b) where nominative Case is assigned structurally and where the verb shows agreement morphology. Eventually, the child will progress from the minimal default grammar to the grammar that generates the structure in (1b) but this, according to Roeper (1999), does not involve parameter resetting nor deletion of the minimal default grammar that generates (1a)². In this context, too, two seemingly contradicting rules thus exist side by side, of which one is productive and the other is non-productive and possibly deactivated. In more recent publications this idea is extended to contexts of SLA (Roeper 2003, 2016; Amaral/Roeper 2014) and the term *multiple grammars* rather than *grammar competition* is used. For the example from Old English and for language acquisition illustrated in (1), GC/MG can be regarded as an unstable state in which two rules are in competition within one and the same language. The unstable state of Old English is resolved to a stable condition in Early Middle English, where VO is the predominant order. In language acquisition the grammar that derives the structure in (1b) is the stable state at the end of the acquisition path. This, however, need not be the case. Particularly in acquisition contexts the competition between two conflicting rules can remain a stable state at the end of the acquisition path, or in other words, the acquisition path can be marked by two seemingly optional and conflicting rules. For further clarification let us look at another example from language acquisition in some more detail.

According to Chomsky (2005), three factors determine language acquisition. The first is genetic endowment, i.e. the basic principles of Universal Grammar (UG). The second is experience, i.e. empirical data that the child is confronted with

² Note, incidentally, that simple deactivation – instead of full deletion – of the minimal default grammar in (1a) allows older children or adult speakers to tap into this grammar to understand and mimic baby-talk (Amaral/Roeper 2014).

in the acquisition process. Based on these data the child determines a limited number of parametric choices provided by UG. The third and final factor encompasses several cognitive principles that are language (and potentially even organism) independent, i.e. general learning principles that are not language specific. From the minimalist perspective the main research question in recent years has been how much can be attributed to the third factor and how much remains language specific (Chomsky 2005 and subsequent publications). Although a definitive answer has not yet emerged, it is clear that language acquisition cannot do without genetic predisposition, i.e. some version of UG, and primary linguistic data, i.e. language input (e.g. Chomsky 2001, 2005 and subsequent publications). This paper adopts these assumptions and argues for the existence of UG with some narrowly confined parametric options that are determined by language input. More specifically we argue that MG/GC theory exploits these assumptions in the sense that language acquisition is constrained only by UG, i.e. all languages that conform to UG are in principle acquirable, while, on the other hand, language learners will never postulate any rules that are not in line with UG. The learner of any language X will thus acquire the rules of this language which are a subset of the possible rules of UG. These rules, once acquired, cannot be modified nor replaced or deleted during the acquisition process. The only option for the language learner is to add new rules to the grammar of their language if required by linguistic evidence. In this scenario, seemingly contradicting rules can very easily arise. In these cases, the learner needs to determine which rules are productive in their language and which are lexically or contextually (or otherwise) constrained. Unusual though this might seem at first sight, it has immediate empirical and theoretical appeal and is strictly in line with the assumption that there is no (real) optionality in language (Chomsky 1995). Hence, real optionality in language never arises and is always attributable to independent and potentially contradicting rules of grammar. In line with standard minimalist assumptions, we will further assume that these rules of grammar are maximally simple. How maximal simplicity is to be defined or measured exactly is still open to debate in minimalist theory and we will not provide an answer here (but see Chomsky 1957 for an early debate). It is equally unclear what a rule of grammar is and we will also leave this open for further research. However, we will follow standard assumptions in minimalist theory that rules operate over features. Thus, the exact determination of features that lead to syntactic rules will henceforth be left open, while it is assumed that features are the only necessary and sufficient factor for rule formation and that no other devices such as indices, diacritics or features of features are required (for discussion, see *inter alia* Adger 2010; Boeckx 2010; Reuland 2011; Bauke 2014; Amaral/Roeper 2014). Now let us discuss how this theory accounts for the postulation of seemingly contradictory rules as a stable state in language acquisition.

Any child acquiring English will be faced with the question whether English requires the overt realization of subjects or not. Both options are available in UG and linguistic data will eventually lead the child to the postulation of a rule that requires the overt realization of subjects.³ For lack of a better representation we will pre-theoretically represent this rule as follows (cf. also Amaral/Roeper 2014 for a similar representation):

- (2) [Subj]/: +phon]

However, the constructions in (3) (adapted from Amaral/Roeper 2014), which are all frequently attested in English, are all incompatible with the rule in (2):

- (3) a. Where's Khatia? ____ just left.
 b. ____ cold today, isn't it.
 c. ____ sounds all right to me.

Thus, all speakers of English must also have a rule in their grammar that generates the structures in (3) and this rule is likely to contrast with the rule in (2). In principle, there are two options for integrating the rule for the data in (3) into the grammar. The first is to augment, i.e. change, the rule in (2) in the following way⁴:

- (4) [Subj]/: +phon; iff Subj = Topic: -phon]

This, however, would mean that the rule in (2) is manipulated and changed in the acquisition process. This is an option that MG/GC does not allow and it is theoretically unclear how editing an existing rule can be accounted for in language acquisition. The second option is to add a new rule to the grammar of English. This is in line with requirements from MG/GC theory and we thus suggest the informal rule in (5):

- (5) [Subj = Topic: -phon]

This rule conflicts with, but does not change, the rule in (2) in any way. As a result, the grammar of English now holds both rules, i.e. (2) and (5), and this is

³ We will not go into the exact nature of the acquisition path here (see for instance Hyams 2014 for discussion in FLA contexts and Rothman/Slabakova 2017 for discussion in SLA contexts)

⁴ Again, we use this rather informal representation for lack of a more concise alternative expressed simply by features and we also remain silent on the question whether an analysis of (3) in terms of topic drop is ultimately correct.

what marks a stable state in the grammar of English that allows for the generation of sentences with and without overt subjects. When comparing the rules in (2) and (5), we can clearly see that the apparent optionality of sentences without subjects in English, as in (3), boils down to specific contexts.

3 GC/MG theory in SLA

Provided GC/MG theory is real and attested in diachronic contexts and in contexts of first language acquisition, it is relevant to ask whether it also exists in SLA contexts. The assumption that the final state of L1 is the initial state of L2 (Schwartz/Sprouse 1994, 1996; White 2003 and many others) is in line with GC/MG theory.⁵ The rules of L1 will thus provide the starting point for L2 acquisition. Whenever these rules can also account for the L2 data no further learning is required. This will only occur in contexts where the L2 data are not compatible with the already acquired rules.⁶ Note that this does not necessarily mean that the use of L1 rules in L2 acquisition leads to target language rules. The interlanguage rules of the L2 learner may still be radically different from the native language rules of the L1 learner (cf. Schwartz/Sprouse 1994, 1996 for further details) but if they are not in conflict with surface representations, the L1 grammar will be applied to the L2 without further modification. So far, there is thus no difference between GC/MG theory and some version of the full-access/full-transfer model. The only difference

⁵ We will therefore limit our explorations henceforth to the interaction of GC/MG with full-access/full-transfer. This is, of course, by no means the only theory of SLA, and it is impossible to do justice to the full spectrum of (generative) approaches to SLA here. For a comprehensive and accessible overview of these theories we refer the reader to Rothman/Slabakova (2017).

⁶ An anonymous reviewer asks in this context how much input is required to trigger the postulation of an additional rule. This is a highly relevant but also very intricate question that we cannot fully address in this paper. It is well-known that L1 acquisition is marked by a certain amount of conservatism (e.g. Roeper 2016), which means that the child starts with conservative and narrow hypotheses and is somewhat reluctant to generalize to a general V2 grammar e.g. only on the basis of auxiliary raising in English. Only the full spectrum of constructions, e.g. main verb raising, auxiliary raising, object fronting, PP-fronting, etc. in German leads to a full-fledged V2 grammar. The situation may, however, be different for L2 acquisition – possibly depending on the nature of the L1 – where full access/full-transfer may lead to a situation in which the L2 learner tests a rule of maximum generality and moves to more specific additional rules only on the basis of evidence that is incompatible with the maximal rule. In any case, we would argue that to the extent that frequency plays a role here it is type- rather than token-frequency that drives the learning process (see also Yang 2008 for more sophisticated arguments in the same direction).

between the two approaches is that in those cases where further learning is required GC/MG theory assumes the addition of new and simple rules only confined by UG to the grammar. Whereas under full-access/full-transfer restructuring and/or parameter resetting is assumed. Thus, in GC/MG theory the strict absence of any kind of rule restructuring that is postulated for L1 acquisition is also maintained in L2 acquisition contexts. Let us consider an example: we have seen above that an L1 speaker of English will have the rules in (2) and (5) in their grammar. Now let us assume that this speaker acquires Spanish as an L2. Neither of the rules in (2) and (5) can account for the Spanish data. Thus, further learning is required and again two options are available. Under the first option either of the two L1 rules above could be restructured in such a way that it also allows for the L2 data. This, however, raises the question how the learner decides which of the two rules are restructured and whether this impacts the L1 in any way. In GC/MG theory, by contrast, these questions do not arise because here all that needs to be added to the grammar is a new (simple) rule:

- (6) [Subj]/: -phon]

This rule readily accounts for the Spanish data. It conflicts with the rule in (2) just as much as the rule in (5) does and we already argued with regard to (5) that such a conflict is unproblematic and indeed desirable in L1 contexts where seemingly optional data need to be accounted for. Adding new rules is therefore unlikely to cause problems in SLA. Yet, what is needed for SLA is information on which rule belongs to which language (Amaral/Roeper 2014). This information is probably encoded in the feature geometry of the relevant rules. Hence, the grammar of an L1 English/L2 Spanish speaker will eventually accommodate the rules in (2) and (5) for English and the rule in (6) for Spanish, repeated below for convenience:

- (2) [Subj]/: +phon]
 (5) [Subj = Topic: -phon]
 (6) [Subj]/: -phon]

There is an obvious conflict and contradiction between the rules in (2) and (6). Yet neither is restructured or modified in any way. On the contrary, both rules are part of the grammar of an L1 English/L2 Spanish speaker and both are used productively by the speaker.

With this much in place, let us now turn to another case of GC/MG and the impact of a V2 rule for L1 speakers of German, Dutch and Norwegian acquiring L2 English.

4 V2 in German, Dutch and Norwegian speakers of L2 English

4.1 Word order in German, Dutch and Norwegian vs. English main clauses

V2 word order is typical of Germanic languages and German, Dutch and Norwegian display this word order pattern very robustly in main clauses⁷. The examples in (7)–(9) illustrate for each language respectively that various kinds of constituents can occur in sentence initial position (7a/8a/9a–7d/8d/9d) as long as the verb is in second position (7e/8e/9e–7g/8g/9g):

- (7) a. Gestern tanzte die Staatsanwältin mit dem Professor.
 Yesterday danced the state attorney with the professor.
 ‘Yesterday the state attorney danced with the professor’.
- b. Die Staatsanwältin tanzte gestern mit dem Professor.
- c. Mit dem Professor tanzte die Staatsanwältin gestern.
- d. ...
- e. *Gestern die Staatsanwältin tanzte mit dem Professor.
- f. *Die Staatsanwältin mit dem Professor tanzte gestern.
- g. ...
- (8) a. Gisteren danste de officier van justitie met de professor.
 Yesterday danced the state attorney with the professor.
 ‘Yesterday the state attorney danced with the professor’.
- b. De officier van justitie danste gisteren met de Professor.
- c. Samen met de professor danste gisteren de officier van justitie.
- d. ...
- e. *Gisteren de officier van justitie danste met de professor.
- f. *De officier van justitie met de professor danste gisteren.
- (9) a. I går danset statsadvokaten med professoren.
 Yesterday danced the state attorney with the professor.
 ‘Yesterday the state attorney danced with the professor’.
- b. Statsadvokaten danset i går med professoren.

⁷ This paper has nothing to say on embedded V2 in German nor on embedded non-V2 orders in Norwegian dialects.

- c. Med professoren danset i går statsadvokaten.
- d. ...
- e. *I går statsadvokaten danset med professoren.
- f. *I går med professore danset statsadvokaten.
- g. ...

According to standard analyses (cf. Grewendorf/Hamm/Sternefeld 1987) the V2 structure is generated by movement of the verb from V-final to C-head position. Here we will remain agnostic as to whether the verb passes through an intermediate T-head position or not (cf. Haider 2010) as this is orthogonal to the analysis. Nor will we take a stand on whether V^0 and possibly T^0 are head-initial or head-final (cf. Kayne 1994), i.e. whether head-directionality can be reversed or whether all structures are asymmetrical and universally head-initial. All that matters is that the verb in main clauses moves to C^0 and thereby generates the surface V2 order, with just one specifier position in CP to be filled by a maximal projection. Thus, we will assume the standard analysis by Grewendorf/Hamm/Sternefeld (1987) in the following slightly revised and updated version:

We argue that (10) is representative of German, Dutch and Norwegian main clauses, where the verb moves, as indicated, from V to T to C. This is called *Finitum-voranstellung*, i.e. fronting of the finite verb (Grewendorf/Hamm/Sternefeld 1987). This operation on its own generates the verb-first (V1) structure that characterizes polar interrogatives in all three languages:

- (11) Tanzte die Staatsanwältin gestern mit dem Professor?
- (12) Danste de officier van justitie gisteren samen met de professor?
- (13) Danset statsadvokaten i går med professoren?

In a second step towards generating V2 order, another constituent is topicalized, i.e. moved to the specifier position of CP (Spec, CP), and the examples in (7)–(9) illustrate that the topicalized constituent can either be a subject, an object or an adverbial. In fact, with a few exceptions (i.e. reflexives, anaphoric accusative pronouns and some particles (Grewendorf/Hamm/Sternefeld 1987) almost any constituent can be topicalized in the three languages). Thus, it can be concluded that the rule that generates V2 in German, Dutch and Norwegian main clauses is a very robust characteristic of the L1 grammars of speakers of these languages.

English, on the other hand, is not a V2 language, as illustrated by the example in (14):

- (14) Yesterday the state attorney danced with the professor.

Here the verb is in third position preceded by two other constituents, viz. the adverbial *yesterday* and the subject DP *the state attorney*. This is because the verb does not move to C° in English, hence *yesterday* may occupy the Spec, CP position and the subject DP may occupy the specifier position of TP below and the verb, which has (arguably) moved as high as T°, is in third position. With this much in place let us now turn to *wh*-constructions in L2 English and let us define the learning paths for all three L1 speaker groups separately.

4.2 *Wh*-constructions

The learning task for any L1 speaker of German, Dutch and Norwegian acquiring L2 English is to ‘unlearn’ the V2 properties of the respective L1. However, the learning task is complicated by the fact that English shows some residual V2 properties (Rizzi 1990). In *wh*-constructions in English auxiliaries move from T to C and thus mirror the movement of auxiliaries and main verbs in main clauses in German, Dutch and Norwegian, where the verb also ends up in C° and arguably moves through T° along the way. Of course, this movement operation does not occur with main verbs (any more – it still was a commonplace in Early Modern English but is lost in Present Day English) and is limited to auxiliaries but still, it is a persistent characteristic of *wh*-constructions, as is illustrated in the following examples for subject and object questions:

- (15) a. Who will kiss Khatia?
 b. Who will [_{TP} ~~who~~ ~~will~~ kiss Khatia]?
 (16) a. Who will Ted kiss?
 b. Who will [_{TP} Ted ~~will~~ kiss ~~who~~]?

It is this dichotomy between generalized verb movement in German, Dutch and Norwegian on the one hand and residual verb movement in English on the other that is explored further in this paper. According to GC/MG theory, a competition between the generalized verb movement operation in the L1 and the residual verb movement operation in L2 is expected. For German, Dutch and Norwegian learners of L2 English partial ‘unlearning’ of the V2 movement rule is required. According to MG/GC theory, where full or partial restructuring is not an option, this means that an additional rule is added to the grammar that accounts for residual V2, i.e. movement of auxiliaries only, from T° to C° in L2 English. In the remainder of our study, we probe into the interpretation of *wh*-+particle constructions of the target learner groups.

4.2.1 L1 German – L2 English

(17) illustrates the relevant *wh*-+particle constructions for German and English.

- (17) a. Who picked Ann up?
b. Wer holte Anna ab?

So, in the German example in (17b) the verb has moved to C° and the Spec, CP position is filled by the *wh*-constituent. In the English example in (17a) on the other hand, the verb has not moved to C°, as this movement operation is restricted to auxiliaries. Nevertheless, Roeper (2016), referring to work by Rankin⁸, reports that L1 German speakers tend to assign non-target interpretations to the question in (17a), which is then either interpreted as ambiguous between a subject- and an object question or as an object question only. According to Roeper, L1 German learners of L2 English tend to apply the L1 grammar rule in their L2 interlanguage because there is no immediate evidence of any conflict. Any potential evidence could only come from an alternative construction that is available in English but illicit in German, i.e. the one in which the particle is pied-pied to sentence medial position:

- (18) a. Who picked up Ann?
b. *Wer holte ab/abholte Anna?

⁸ For instance, Rankin (2014) shows that L2 English speakers with L1 German interpret *wh*-subject questions (without particles) as ambiguous or as object questions, particularly when the *wh*-word is [+animate]. [–animate] constructions are much more consistently interpreted as subject questions only. We took these results into account in our study and tested [+animate] constructions only.

So, while the data in (18a) clearly signal for the L2 English speaker that the L1 grammar cannot be applied in these contexts, the data in (17a) do not provide any such evidence and a competition from the L1 grammar is very likely, leading the L2 English speaker to optionally assign an object interpretation to the question in (17a). Of course, the target language grammar does not provide this option and requires *do*-insertion:

- (19) a. Who(m) did Ann pick up?
b. Wen holte Anna ab?

In German *do*-insertion is not required and the difference between the subject and the object question is marked by Case-assignment on the *wh*-constituent.⁹ So we argue that for L2 English speakers with L1 German there is a representational conflict for the construction in (17a) that originates in GC/MG between a generalized V2 rule in the L1 and a residual V2 rule in the L2 and leads speakers to assign an ambiguous or even an object interpretation to the subject question. We further argue that this competition is even stronger in those contexts where the morphological form of the *wh*-constituent does not bias speakers towards a subject interpretation. The relevant data is illustrated in (20) below:

- (20) a. Which one picked Ann up?
b. Which one picked up Ann?

Here again, we expect that the construction in (20a) leads to grammar competition between generalized V2 in L1 and residual V2 in L2, while the construction in (20b), where the particle is pied-piped again signals that the L2 grammar must be used because particle pied-piping is ungrammatical in the L1.

4.2.2 L1 Dutch – L2 English

At first sight German and Dutch seem to pattern alike and we would not expect any major differences in the L2 learning path for the two L1 speaker groups. Both languages display solid V2 properties and verb particle constructions have a very

⁹ Arguably English also marks the distinction between subject- and object *wh*-pronouns morphologically in *who* vs. *whom* but this distinction is not realized systematically and it is absent in other *wh*-constituents, cf. e.g. *what*.

similar distribution in both languages, as is illustrated in the following examples (cf. Neeleman/Weerman 1993 for examples from Dutch):

- (21) a. Jan belt het meisje op.
 Jan calls the girl up.
 ‘Jan phones the girl.’
- b. Jan ruft das Mädchen an.
 Jan calls the girl up.
 ‘Jan phones the girl.’
- (22) a. dat Jan het meisje opbelt
 that Jan the girl up-phones
 ‘that Jan calls the girl’
- b. dass Jan das Mädchen anruft
 that Jan the girl up-phones
 ‘that Jan calls the girl’

In questions, on the other hand, we find one factor that distinguishes Dutch from German and eventually likens Dutch and English grammars in a relevant way. As we saw above, German, in contrast to English, makes a morphological distinction between subject and object *wh*-pronouns. Further relevant examples are provided in (23):

- (23) a. Wer liebt Anna?
 Who.NOM loves Anna
 ‘Who loves Anna?’
- b. Wen liebt Anna?
 Who(m).ACC loves Anna
 ‘Whom does Anna love?’

Now let’s compare this to Dutch:

- (24) a. Wie ziet Anna?
 Who.NOM sees Anna
 ‘Who sees Anna?’
- b. Wie ziet Anna?
 Who(m).ACC sees Anna
 ‘Whom does Anna see?’

As we can see from the examples in (24a/b) Dutch, unlike German, does not mark the distinction between subject and object (nominative and accusative) *wh*-pronouns morphologically. Dutch and English are thus almost indistinguishable in this respect, with English marking the distinction only optionally (cf. footnote 9). Hence L1 Dutch L2 English speakers are much more used to syncretism on *wh*-constituents than L1 German L2 English speakers and we can expect L1 Dutch speakers to be able to resolve morphological ambiguity resulting from syncretic *wh*-constituents much more easily than L1 German speakers – possibly by making use of a universal subject bias that can be observed cross-linguistically (Culbertson/Kirby 2016).

This then leaves the question of particle placement in Dutch and again, we can observe a crucial difference between Dutch and German and an effect where particle placement and syncretic Case-marking on pronouns conspire. This is illustrated in the following examples in (25):

- (25) a. Wie houdt van Jan?
 Who.NOM loves Jan
 ‘Who loves Jan?’
- b. Van wie houdt Jan?
 Whom.ACC loves Jan
 ‘Whom does Jan love?’

So, in (25a/b) the morphological form of the *wh*-pronoun remains syncretic, just like in the examples (24a/b) above. In contrast to the examples in (24a/b), however, there is a way in Dutch to disambiguate between a subject and an object reading for the *wh*-pronoun in *wh*-+particle constructions. Crucially, this disambiguation goes along with moving the particle to sentence initial position. Pied-piping the particle no further than sentence medial position, i.e. to the position that is grammatical in English and ungrammatical in German (cf. examples in section 3.2.1 above), yields a subject interpretation for the *wh*-pronoun in Dutch.¹⁰

10 Notice incidentally, that stranding the particle in sentence final position is not an option for the sample sentences in (25) in Dutch:

(25)’ *Wie houdt Jan van?

Interestingly, it is grammatical in Frisian though (many thanks to Arjen Versloot for pointing this out):

(25)’’ Wa hâldt Jan fan?

We will leave a more detailed investigation of this interesting observation to future research.

4.2.3 L1 Norwegian – L2 English

Given that Norwegian is also a V2 language, as shown in section 4.1 above, we again expect to find a grammar competition effect in *wh*-+particle constructions for L1 Norwegian and L2 English speakers¹¹. Again, however, we have to take some further aspects of Norwegian syntax into account. The examples in (26) (taken from Åfarli 1985) illustrate that particle pied-piping is licit in the same contexts in Norwegian as in English. This marks a clear difference from the particle placement options for German and Dutch respectively, which were illustrated in sections 4.2.1 and 4.2.2 above:

- (26) a. Jon sparka hundene ut.
 John kicked dogs out
 ‘John kicked the dogs out.’
- b. Jon sparka ut hundene.
 John kicked out the dogs
 ‘John kicked the dogs out.’

Furthermore, Norwegian *wh*-constituents are ambiguous between a subject and an object interpretation, as is illustrated below. This makes these constructions reminiscent of the syncretic *wh*-constructions that we find in Dutch but it is clearly different from German, where morphological marking allows for a clear distinction between subject and object questions:

- (27) Hvem elsker Lasse?
 Who loves Lasse
 a. ‘Who loves Lasse?’
 b. ‘Who does Lasse love?’

However, in Norwegian the ambiguity vanishes in *wh*-+particle constructions, in the sense that those constructions in which the particle is pied-piped can only be interpreted as subject-questions. Here, then, the Norwegian and the English grammar conspire towards a subject-only reading. The ambiguity remains when the particle is stranded, as is shown in (28):

11 See also Westergaard (2003) for arguments that V2 is hard to unlearn in English.

- (28) Hvem kastet hundene ut?
 Who kicked dogs out
 a. 'Who kicked the dogs out?'
 b. 'Whom did the dogs kick out?'
- (29) Hvem kastet ut hundene?
 Who kicked out the dogs
 'Who kicked the dogs out'
 *'Whom did the dogs kick out?'

For those L2 English *wh*-+particle constructions in which the particle is pied-piped, we thus expect a strong tendency towards subject-interpretations. For those constructions where the particle is stranded, we expect a higher tendency towards ambiguous or object-interpretations of the *wh*-+particle constructions, unless this is again counter-balanced by a universal subject bias. Another potential factor is that the construction gets a very strong subject reading in several Norwegian dialects even with the particle stranded. Consider the following data from Northern Norwegian:

- (30) Kvem kasta han Ole ut?
 Who kicked he Ole out
 'Who kicked Ole out?'

The object reading is preferably generated in a cleft-construction, in order to disambiguate it from the subject reading:

- (31) Kvem va det som kasta han Ole ut?
 Who was that SOM kicked he Ole out
 'Who was it that Ole did kick out?'

The same patterning can be found in the southwestern Rogaland dialect and in Bergensk (spoken in Bergen, where the data were collected). Such disambiguation by clefting which can be found in several dialects, may well have a GC/MG effect on the interpretation of English *wh*-+particle constructions in which the particle is stranded and push L2 speakers towards a target-like interpretation.

A final factor that needs to be taken into account comes from the English grammar itself. We argued above that the GC/MG effect should decrease for L1 German speakers if the particle is pied-piped because this option is not available in their L1 and thus is a clear signal to use the English grammar in these contexts.

For L1 Norwegian speakers the logic can be reversed in the sense that the construction with particle stranding in (30) remains ambiguous, at least in Bokmål and in some dialects. This would again suggest a higher tendency towards ambiguous or object-interpretations. Note, however, that in English the object question would require *do*-support and for L1 Norwegian speakers the lack of *do*-support, combined with the two other factors discussed above, might be enough to prevent an object reading. Note further that this signal would not be enough for the German speakers, because here the verb is always in V2 position and the particle is always stranded:

- (32) a. Wer trifft Hans an?
 Who hits John at?
 ‘Who meets John?’
- b. Wen trifft Hans an?
 Who hits John at?
 ‘Who does John meet?’
- (33) a. Wer hat Hans angetroffen?
 Who has John at.hit
 ‘Who has met John?’
- b. Wen hat Hans angetroffen?
 Who has John at.hit
 ‘Who has John met?’

So even though Norwegian is a V2 language like German and Dutch and unlike English, we would expect a lower grammar competition effect in L1 Norwegian L2 English speakers than for L1 German/Dutch L2 English speakers. This, we would argue, is not due to the fact that there is no GC/MG between the two languages. Rather, it stems from the fact that applying Norwegian grammar in English (in line with full-access/full-transfer) does not cause any interference effect precisely because the two grammars are not in conflict here.

4.3 Testing GC/MG in German, Dutch and Norwegian speakers of L2 English

Based on the observations in the preceding sections, we can now formulate the following hypothesis:

- (34) Hypothesis: role V2 in MG/GC of L1 V2 and L2 English speakers:
- a. L1 V2 speakers with L2 English are much more likely to assign an ambiguous interpretation to unambiguous subject-questions than L1 English native speakers (and speakers of a L1 that is not V2)
 - b. The effect of an ambiguous interpretation is strongest in contexts where neither Case-marking on the *wh*-word nor particle pied-piping is present.

Furthermore, we predict the following language-specific effects for German, Dutch and Norwegian speakers:

- (35)
- a. For L1 German speakers we predict the highest effect for those constructions where the particle is in sentence final position and the *wh*-constituent is ambiguous between a subject and an object reading.
 - b. For L1 Dutch speakers we predict the effect of the absence of Case-marking on the *wh*-constituent to be lower than for L1 German speakers.
 - c. For L1 Norwegian speakers we predict target-like interpretations for those constructions where the particle is pied-piped and a possibly very low effect for those constructions where the particle is stranded.

Both (34) and (35) are addressed in a series of studies that are presented in the following sections.

5 Study 1: L1 German, Dutch or Norwegian L2 English

5.1 Participants

We tested four groups, three experimental groups for the three different L1 V2 languages and one control group of L1 English speakers.¹² The first group encompassed 185 students enrolled in the BA study program of the Department for English and American Studies at the University of Wuppertal (Germany). 166 of these participants identified German as (one of) their native language(s). We did

¹² Cf. also Bauke (2019) for discussion of the L1 German data.

not distinguish between monolingual and bilingual L1 speakers but those participants who did not identify German as their mother tongue were excluded from the statistical analysis.¹³ Students were aged between 18 and 28 years ($M = 21.37$, $SD = 2.104$) and they started learning English between 6 and 10 years of age ($M = 8.53$; $SD = 1.071$). Their proficiency level ranges between C1 and C2 in CEFR (measured by an in-house 'placement test' that all students entering the program have to take).

The second group consists of 30 BA students enrolled in the program of English language and culture at the University of Amsterdam (Netherlands). These students are in the first year of the program and they all identified Dutch (and Dutch only) as their first language. Participants were aged between 19 and 27 years ($M = 22.03$; $SD = 2.282$) and they started learning English between 8 and 12 years of age ($M = 9.90$; $SD = 1.918$). Thus, the age range and the onset of acquisition range in the group of L1 Dutch speakers are relatively similar to the group of L1 German speakers.

The third group contains 32 BA students enrolled in the program of English in the Department of Foreign Languages at the University of Bergen (Norway). These students are in the first year of said program. All participants identified Norwegian as their native language and several identified a Norwegian dialect as an additional first language. Students were aged between 18 and 33 years ($M = 20.94$, $SD = 3.079$) and are thus comparable to the groups of L1 German and L2 Dutch speakers. However, at least some of them started learning English at a younger age than the speakers in the L1 German and L1 Dutch groups. Students were aged between 4 and 10 years when they started learning English ($M = 6.84$, $SD = 1.725$).

The control group consists of 20 participants of native speakers of English. These participants were recruited through private contacts, the age range in this group is between 19 and 73 years ($M = 40.00$, $SD = 14.287$).

5.2 Materials and procedure

Participants were asked to complete a pen and paper questionnaire that consisted of a free choice answer task. The questionnaire contained 32 questions that tested the interpretation of English *wh*-questions in *wh*-+particle constructions. Participants were unaware of the aim of the study, and had no time restrictions for com-

¹³ All in all 23 speakers in this group identified as bi- or multilingual and since the other two experimental groups consisted either of monolingual speakers or of monolingual and dialect speakers, we did not further distinguish between monolingual and bi- or multilingual speakers in this group either.

pletion of the questionnaire. They were instructed to read a short scene, like the one illustrated below, and to answer a follow-up question:

- (36) Susie, Ann and Maggie are carpooling. On Mondays Maggie picks Susie up. On Tuesdays Ann picks Maggie up and on Fridays Susie picks Ann up.

Each scene is followed by a free choice question. This follow-up question tests the variables presented in chapter 4, indicated here in the right-hand column of (37). So the scene in (36) is followed by one of the questions in the left-hand column in (37):

- (37) a. Which one picked Ann up? – which one – V – XP – Part(icle)
 b. Which one picked up Ann? – which one – V – Part – XP
 c. Who picked Ann up? – who – V – XP – Part
 d. Who picked up Ann? – who – V – Part – XP

In (37a/b) the *wh*-constituent does not indicate any morphological marking, in (37c/d) on the other hand *who* (as opposed to *whom*) contains a mild bias towards subject morphology (cf. discussion in chapter 4 above). In (37a/c) the particle is stranded in sentence final position, in (37b/d), on the other hand, the particle is pied-piped.

Each of the four question patterns illustrated in (37) occurs eight times throughout the questionnaire in randomized order. Data collection was distributed over four different undergraduate courses at Bergische Universität Wuppertal, and all data were collected within three consecutive days. All courses received the same 32 scenes and follow-up questions. However, the order of scenes and questions was varied and randomized for the four groups in order to control for pattern learning that might arise while participants complete the study. Since pattern learning did not turn out to be a determining factor, it is not taken into further consideration in the discussion of the results below nor in the questionnaires for the Dutch and Norwegian speakers. Here, all data were collected in a single session on a single day. All meta-data were collected in the respective L1s German, Dutch or Norwegian.

Answers were coded as correct/target-like if participants provided answers that showed a subject-only interpretation for the *wh*-constituents. So for the questions illustrated in (37) the only correct/target-like answer would be *Susie*. All answers that showed an ambiguous interpretation between a subject and object interpretation (e.g. when a participant answered both *Susie* and *Maggie*) were coded as non-target like generalized V2 interpretations. Similarly, all answers

that showed an object-only interpretation for the *wh*-constituent were also coded as non-target like generalized V2 interpretations. For the examples above this would be all answers that contained *Maggie*. All other answers, i.e. blank answers, obvious statements of confusion such as *I don't know* or unexpected choices such as *Ann*, which occurred occasionally, were coded as missing values.

5.3 Results

The results for the experimental groups of German, Dutch and Norwegian L2 English speakers and for the control group of L1 English speakers are summarized in tables 1–4 below:

Table 1: generalized V2 readings – L1 German speakers

German	subject reading	generalized V2
which one – V – XP – Part	72.97%	27.03%
which one – V – Part – XP	90.67%	9.33%
who – V – XP – Part	83.82%	16.18%
who – V – Part – XP	91.57%	8.43%

Table 2: generalized V2 readings – L1 Dutch speakers

Dutch	subject reading	generalized V2
which one – V – XP – Part	86.67%	13.33%
which one – V – Part – XP	98.4%	1.6%
who – V – XP – Part	91.67%	8.33%
who – V – Part – XP	92.5%	7.5%

Table 3: generalized V2 readings – L1 Norwegian speakers

Norwegian	subject reading	generalized V2
which one – V – XP – Part	94.514%	5.468%
which one – V – Part – XP	98.829%	1.171%
who – V – XP – Part	98.438%	1.562%
who – V – Part – XP	97.657%	2.343%

Table 4: generalized V2 readings – L1 English speakers

English	subject reading	generalized V2
which one – V – XP – Part	100%	0%
which one – V – Part – XP	100%	0%
who – V – XP – Part	100%	0%
who – V – Part – XP	100%	0%

The results show that even very advanced L1 German speakers of L2 English speakers tend to interpret subject *wh*-questions in *wh*-+particle constructions as generalized V2 constructions, i.e. either as object questions or as ambiguous between subject and object interpretations. The effect is much stronger when the particle is stranded and strongest in the absence of (potential) Case-marking on the *wh*-constituent, where it reaches a level of almost 30%. If the particle is pied-piped in the *wh*-+particle constructions, error rates drop to levels below 10% for both *wh*-constituents and there is hardly any difference in the interpretation of questions introduced by *who* and *which one* respectively.

For the L1 Dutch speakers, too, generalized V2 plays a significant role in the interpretation of *wh*-+particle constructions. The results further show that L1 Dutch L2 English speakers with a very high proficiency level in English show tendencies that are similar to those observed for L1 German L2 English speakers. There seems to be GC/MG between generalized V2 in L1 Dutch and residual V2 in L2 English, particularly when the particle is stranded. The effect is again strongest (peaking just below 15%) in the absence of (potential) Case-marking on the *wh*-word. Pied-piping the particle also leads to a decrease in error rates, and in the *wh*-construction in which the *wh*-constituent is not Case-marked the generalized V2 effect is completely absent (1.6%). L1 Dutch L2 English speakers show native-like proficiency in their interpretation of this construction. Though the tendencies in conditions 1–3 are the same for both the German and the Dutch L2 English speaker groups, the overall error rates for L1 Dutch speakers are significantly lower than those for the L1 German speakers. In other words, the GC/MG effect for L1 Dutch speakers is lower overall than for the L1 German speakers. When comparing the results for the fourth condition from the L1 Dutch speakers to the results in the same condition for the L1 German speakers, we notice another effect. In conditions two and four, i.e. in those constructions where the particle is pied-piped, L1 German speakers produce the lowest overall error rates and the error rates for both conditions are almost on the same level. We already pointed out that L1 Dutch speakers show the same tendencies like the L1 German speakers in their error

rates in conditions 1–3. The overall error rate for condition four, however, is lower than the error rate in which the particle is not pied-piped and the *wh*-constituent is not Case-marked (i.e. condition 1), but it is at almost the same level as in condition 3, i.e. the *wh*-construction in which the *wh*-constituent is Case-marked (but the particle is not pied-piped). Thus, while error rates drop to native speaker level in condition 2 with pied-piping, in condition 4 pied-piping does not have the same effect. On the contrary, if the *wh*-constituent is *who* as opposed to *which one*, pied-piping and preposition stranding both pattern alike.

The results for Norwegian L2 English speakers show target-like interpretations regardless of whether the particle is stranded or pied-piped and regardless of whether *wh*-constituents are overtly Case-marked or not. There seems to be a very small and only marginally significant effect for the first condition, i.e. the construction in which the *wh*-pronoun is not Case-marked and the particle is stranded. Closer inspection, however, reveals that the error rate of just over 5%, which is on the brink of being statistically significant, comes from a single speaker who interpreted all 8 occurrences of this construction as object questions. The other 31 L1 Norwegian speakers did not make any errors in this condition. So, we will not take the question whether the error rate is significant or not into further account here.

The results in table 4 clearly illustrate that native speakers of English performed as expected. They did provide some unexpected answers or occasionally left some answers blank. These were coded as missing values just like in the other groups. What is striking is that none of the L1 English speakers provided any answers that indicated an ambiguous or object-only interpretation for any of the question patterns illustrated in (37). We interpret this high-level performance of the control group as an indication that the test is not intrinsically flawed.

A 2x4 ANOVA that checks for statistical significance of the results between the various groups (L1 vs L2 speakers) and across the four test conditions (which one – V – XP – Part = type 1; which one – V – Part – XP = type 2; who – V – XP – Part = type 3, who – V – Part – XP = type 4) shows a significant effect of L1/L2 and of type 1 and type 3 ($p < .001$) and a significant effect for type 2 and type 4 ($p < .01$) for L1 German speakers. For L1 Dutch speakers results show a significant effect of L1/L2 and of type 1, 3 and type 4 ($p < .01$) and no significant effect for type 2 ($p > .05$). For L1 Norwegian speakers results show a marginally significant effect of L1/L2 for type 1 ($p < .05$), which, as indicated above, we will ignore, and no significant effect for types 2, 3 and 4 ($p > .05$). The results of the between group comparison are summarized in Figure 1:

Fig. 1: subject interpretation in %

5.4 Interpretation

We can now return to the hypothesis and predictions we formulated in chapter 4.3, repeated here for convenience:

- (34) Hypothesis: role of V2 in MG/GC of L1 V2 and L2 English speakers:
 - a. L1 V2 speakers with L2 English are much more likely to assign an ambiguous interpretation to unambiguous subject-questions than L1 English native speakers (and speakers of a L1 that is not V2)
 - b. The effect of an ambiguous interpretation is strongest in contexts where neither Case-marking on the *wh*-word nor particle pied-piping is present
- (35) Further predictions:
 - a. For L1 German speakers we predict the highest effect for those constructions where the particle is in sentence final position and the *wh*-constituent is ambiguous between a subject and an object reading.
 - b. For L1 Dutch speakers we predict the effect of the absence of Case-marking on the *wh*-constituent to be lower than for L1 German speakers.
 - c. For L1 Norwegian speakers we predict target-like interpretations for those constructions where the particle is pied-piped and a possibly very low effect for those constructions where the particle is stranded.

As the results from this study show, GC/MG in the interpretation of *wh*-+particle constructions is an issue for German L2 English speakers that leads to a non-target generalized V2 interpretation for these constructions. The effect is strongest for those constructions where the particle is stranded and it peaks for the construction in which the particle is stranded and the *wh*-constituent is syncretic between nominative and accusative Case-marking. Note that if the L2 grammar were simply to be restructured, we would expect the error rates of highly proficient L2 speakers to be much lower, ranging somewhere at the level of type 2 and type 4 constructions. At these levels, grammar competition is much less of an issue because particle pied-piping is ungrammatical in German.

For Dutch speakers we find a GC/MG effect as well. However, since Dutch, like English, allows for particle pied-piping to sentence medial position in subject *wh*-+particle constructions and also shows syncretism on *wh*-constituents it is impossible to determine which of the two factors is more relevant. What we can say, however, is that particle placement has a highly significant effect in condition 1 and 2. Here error rates are brought down from the highest level overall to native speaker like competence depending on particle placement. While particle placement has virtually no effect in L1 Dutch speakers in conditions 3 and 4, error rates in these conditions are significantly lower than in condition 1 and significantly higher than in condition 2. This conspires with the results from German, i.e. with Case-marking taking a back-seat to particle placement for speakers of L1 V2 L2 English. Hence, when comparing L1 German and L1 Dutch speakers to L1 English speakers, there seems to be a GC/MG effect between generalized and residual V2 for the two L1 German and Dutch speaker groups. Thus, there seems to be a general V2 effect. However, the strength of the effect is different for the two L1 speaker groups, with L1 German speakers showing a much stronger effect than L1 Dutch speakers. This, we argue, indicates that V2 may not be as broad a parameter as frequently assumed.

This is further corroborated by the fact that L1 Norwegian L2 English speakers, unlike L1 German/Dutch L2 English speakers, show target-like results in their interpretation of *wh*-+particle constructions regardless of whether the *wh*-constituent is overtly Case-marked or not and regardless of whether the particle is pied-piped or stranded. If there were a broad V2 parameter that applies cross-linguistically, we would not expect such a strong counter-balancing effect from particle placement and morphological marking in Norwegian. Additionally, following Roeper (2016), we take this as an indication that if the GC/MG effect is observed only in specific groups of advanced V2 speakers then it is less likely to be accounted for by a production or processing error. Rather, it indicates a representational conflict in terms of competing grammars.

6 Further predictions and conclusion

Our observations on the role of GC/MG in German, Dutch and Norwegian speakers allow us to make the following predictions on acquisition path in L2 English for L1 speakers of other V2 languages:

For Icelandic, we expect L1 Icelandic speakers of L2 English to pattern with L1 Norwegian speakers because verb-particle constructions in Icelandic show the same distribution as in Norwegian, as is shown in the examples in (38) taken from Svenonius (1996):

- (38) a. Þjónninn þurrkaði rykið af
 waiter wiped dust off
 ‘The waiter wiped off the dust.’
 b. Þjónninn þurrkaði af rykið
 waiter wiped off dust
 ‘The waiter wiped off the dust.’

As we can see in the examples in (38) particles in Icelandic can be either pied-piped or stranded and hence L1 Icelandic speakers should pattern with L1 Norwegian speakers, i.e. we do not expect any interference effect when they apply the Icelandic grammar to English *wh*-+particle constructions. If anything, we expect L1 Icelandic speakers to be even more robust than L1 Norwegian speakers in their interpretations of *wh*+particle constructions in English, at least under the analysis that in Icelandic, as in Yiddish, V2 is movement to T rather than C (cf. Diesing 1990). In this respect, too, Icelandic patterns much more closely with English than any of the other V2 languages investigated where V2 is movement to C.

Swedish does not allow particle stranding, as is illustrated by the following data from Svenonius (1996):

- (39) a. *Kyparen torkade dammet av.
 waiter wiped dust off
 ‘The waiter wiped off the dust.’
 b. Kyparen torkade av dammet.
 waiter wiped off dust
 ‘The waiter wiped off the dust.’

Hence, L1 Swedish L2 English speakers should pattern with the other Scandinavian V2 speakers and should not show a GC/MG effect in these constructions, since the particle placement in sentence final position is not an option, and even if there is CG/MG, there is again no conflict between the L1 and the L2 data.

Danish is the more interesting test-case here. Consider the following data from Svenonius (1996):

- (40) a. Tjeneren tørket støvet af.
 waiter wiped dust off
 ‘The waiter wiped the dust off.’
 b. *Tjeneren tørket af støvet.
 waiter wiped off dust

A brief comparison of the data in (39a/b) and (40a/b) shows that Danish is the mirror image of Swedish with respect to verb-particle constructions. Hence Danish, unlike Swedish, allows particle stranding but does not allow particle pied-piping. In that respect, Danish patterns with the other Germanic V2 languages tested here, i.e. German and (to some extent) Dutch. We may therefore expect L1 Danish speakers of L2 English to produce higher error rates than L1 Norwegian/Icelandic/Swedish L2 English speakers and thus to pattern with the L1 Dutch/German L2 English speakers in this respect. Further testing for these constructions is in progress.

From the studies discussed in this paper we can conclude that unlearning V2 in SLA is a challenging task. L1 speakers of a V2 language show a GC/MG effect in *wh*-+particle constructions in L2 English that can be attributed to the V2 properties of their L1.

However, when comparing the results from L1 speakers of various V2 languages, we can also see that these speakers do not behave as a uniform group in L2 English. Rather, the specific properties of the V2 language need to be taken into account in order to determine how strong the GC/MG effect is going to be. We take this as an indication of two things. First, the data seem to suggest that a broad V2 parameter does not exist. Instead, several factors seem to conspire in generating a V2 effect, which can be dissected into a number of micro-parameters or micro-cues (cf. e.g. Westergaard 2009, 2014; Biberauer et al. 2014, and many others). Second, the data seem to indicate that the effect cannot be related to processing difficulties in L2. If processing were a relevant factor, the various groups of L1 speakers should pattern uniformly as they are all very advanced L2 speakers with relatively similar levels of competence. Since they do in fact pattern differently, we argue for an explanation in terms of GC/MG and underlying grammatical representations instead.

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