

Everyone's been wondering what are the mechanisms for clause attachment of embedded root clauses in Germanic...

Rebecca Woods, Newcastle University

Pre-print of 4th October 2023

Abstract

This paper compares four types of embedded root clause (verb second in complement clauses, verb second in relative clauses, embedded imperatives and embedded inverted interrogatives) across four North-West Germanic Languages (English, German, Dutch and Swedish). It will demonstrate that these languages vary in terms of how embedded root clauses link to the matrix clause (complementation or parataxis, at DP or the left-periphery) and the pragmatic rules that they bring to bear on clauses embedded under attitude predicates. The intersection of syntax and pragmatics results in the different profiles for each language with respect to the acceptability of the different types of embedded root clause.

1. Introduction

In this paper I will compare the syntactic and pragmatic characteristics of four types of embedded root clause in North-Western Germanic: embedded verb second in complement position (comp-EV2), embedded verb second in relative clauses (rel-EV2), embedded imperatives and embedded inverted interrogatives (EIs). The distribution of these four types of embedded root clause varies across English, German, Dutch and Swedish and this paper looks to understand how the paradigm falls out.

The embedded root constructions in this paper are considered ungrammatical in standard varieties of the relevant language, or in formal speech, but are attested and, in some cases, widely used in colloquial speech. Examples of each construction are given in (1)-(4).

(1) Comp-EV2

- a. Johan sa att hon **köpte** inte en ny bil. Swedish, adapted from Wechsler 1991: 180
Johan said that she bought not a new car
“Johan said that she didn't buy a new car”
Compare: Johan sa att hon inte **köpte** en ny bil.
- b. Joop zei, hij **had** honger. Dutch, de Vries 2008: fn. 1
Joop said he had hunger
“Joop said he was hungry.”
Compare: Joop zei dat hij honger **had**.
- c. Er sagt, sie wohnt jetzt in Bonn. German, Reis 1995: 49
He said she lives now in Bonn.
“He said she lives in Bonn now.”
Compare: Er sagt, dass sie jetzt in Bonn wohnt.

- d. He said would he hell go to the party.¹ British English, adapted
Compare: He said that he would never go to the party. from Woods 2016: 244

(2) Rel-EV2

- a. Hon har en ny bok som *jag har inte än läst. Swedish, K. Djärv p.c.²
She has a new book that I have not yet read
Intended: She has a new book that I've not read yet.
Compare: Hon har en ny bok som jag inte än har läst
- b. %Apeldoorn heeft veel huizen die staan leeg. Dutch, den Dikken 2005: 701³
Apeldoorn has many houses that stand empty
`Apeldoorn has many houses that stand empty."
Compare: Apeldoorn heeft veel huizen die leeg staan.
- c. Das Blatt hat eine Seite, die ist ganz schwarz. German, Gärtner 2001: 98
the sheet has a side that is completely black.
`The sheet has a side that is completely black."
Compare: Das Blatt hat eine Seite, die ganz schwarz ist.
- d. He's throwing a party tonight that am I fuck going to attend. Br. English, constructed⁴
Compare: He's throwing a party tonight that I am never going to attend.

(3) Embedded imperatives

- a. Han_i sa (att) drick inte från ??hans_i kopp! Swedish, K. Djärv, p.c.
he said that drink.IMP not from his cup
Intended: "He said don't drink from his cup."
Compare: Han_i sa att drick inte från min_i kopp.
- b. Hij_i zei *praat niet met zijn_i vriendin Dutch, constructed⁵
he said speak.IMP not with his girlfriend
Intended: "He_i said don't speak to his_i girlfriend."
- c. Ich sag dir, geh nach Hause. German⁶, Kaufmann 2012: 208
I tell you go.imp to home
`I'm telling you go home."
Compare: Ich sag dir, dass du nach Hause gehen muss.
- d. He_i said don't talk to his_i girlfriend. British English, constructed

¹ This is not a classical case of EV2 in complement position, but is the closest equivalent in English. A case of *fuck*-inversion (Sailor 2020), (1)d represents a residual form of V2 in English, which can also be embedded (see Woods 2016, 2020). It is equivalent to EV2 in Swedish, Dutch and German in that it expresses a (strong) assertion, however, that assertion is necessarily negative. The clause under "say" is interpreted as a type of negative declarative that features inversion by virtue of a covert negative operator in the left-periphery that is featurally linked to a taboo word to the left edge of the VP (see Sailor 2020 for more details). It is, as far as we can tell, functionally equivalent to more familiar instances of comp-EV2 and is subject to the same syntactic and semantic restrictions.

² All Swedish judgements in this paper were kindly provided by Kajsa Djärv, unless otherwise noted. Any errors are mine and I alone am responsible for the interpretation of her data here.

³ Though the example is taken from den Dikken's paper where it is judged grammatical (see also Zwart 2003), some of my Dutch consultants do not accept V2 in relative clauses.

⁴ Constructed examples in English are constructed by the author in their dialect from the North West of England.

⁵ Dutch judgements were kindly provided by Sjef Barbiers, Marcel den Dikken, Paula Fenger, Coppe van Urk, William van der Wurff and Jan-Wouter Zwart. I am responsible for any remaining errors in the presentation of the examples and for the interpretation of their data.

⁶ But see Reis 2021 for arguments that German embedded imperatives are a "grammatical illusion".

(4) Embedded inverted interrogatives

I asked Jack was she in his class.

Irish English, McCloskey 2006: 87

To summarise, the distribution of these constructions across English, German, Dutch and Swedish is as follows:

Table 1: Acceptability of embedded root clauses in Swedish, Dutch, German and English.

	Comp-EV2	Rel-EV2	Embedded imperatives	EIIs
Swedish	✓	✗	✗	✗
Dutch	✓	%✓	✗	✗
German	✓	✓	%✓	✗
English	✓	✓	✓	✓

An implicational hierarchy appears to emerge between these constructions in Table 1. However, this is only meaningful if the constructions compared here are, in fact, related, which is not as readily evident.

The rest of this paper seeks to detail how these four constructions are similar to and differ from each other, with a view to sketching a proposal for their underlying syntax and pragmatic constraints. I will focus on German and English from here on, as they cover the widest empirical ground and have been best studied in the literature. I will, however, draw on work on Dutch and Swedish where appropriate. Parts of the proposal remain necessarily programmatic given constraints of space, and I will not provide formal semantic details for the proposal, but I hope to demonstrate fertile ground for further research based on solid empirical evidence and theory.

The paper proceeds as follows: I will first present in detail the syntactic and pragmatic characteristics of the four constructions of interest in German and English. I will then sketch the model of the left-periphery that I will use in this paper, namely an extended left-periphery containing a discourse-related projection that licenses the embedded root phenomena in these constructions. I further propose that there are two main mechanisms for relating embedded root clauses and matrix clauses: complementation and parataxis. For paratactic linking, two different attachment sites are available: the Illocutionary Act Phrase in an expanded left-periphery, and DP. The relationship of these mechanisms to the different constructions will then be explained, but syntax alone cannot account for the distribution of the constructions across English and German. To capture this, I will discuss pragmatic rules in English and in German which, when they intersect with syntax, result in the paradigm in table 1.

2. German and English data in detail

In this section I will present morphological, syntactic, and pragmatic arguments for (a) why the constructions of interest differ from direct quotation or typical clausal embedding and (b) when and why they should be treated as related phenomena.

2.1. Morphosyntax

2.1.1. Sequence of Tense

Like typical clausal embedding, comp-EV2 and EII clauses all show sequence of tense effects. In this way they differ from direct speech reports, as demonstrated in (5)-(6).

(5) German (Constructed)⁷

Context: Maria was pregnant last year and is not pregnant in the current content.

- a. Letztes Jahr hat Maria_i gesagt, dass sie_i schwanger war/#ist.
last year has Maria said that she pregnant was/is
“Last year Maria said that she was/is pregnant.”
- b. Letztes Jahr hat Maria_i gesagt, sie war/#ist schwanger.
last year has Maria said she was/is pregnant
- c. Letztes Jahr hat Maria_i gesagt, "Ich_i bin/#war schwanger."
last year has Maria said I am/was pregnant

(6) British English (Constructed)

Context: More than nine months ago, John asked me the following question: "Is Mary pregnant?"

- a. Last year, John asked me whether Mary was/#is pregnant.
- b. Last year, John asked me was/#is Mary pregnant.
- c. Last year, John asked me, "Is/#was Mary pregnant?"

Interestingly, the temporal parameters of EIs can even differ from the current context in ways unconnected to sequence of tense. In the following attested example in (7), the speaker produces a string of clauses using either non-past tense or modal *might*, only to use past tense in an EI. It is possible that this reflects an apparent tendency of EIs to be used in reporting rather than current contexts, a point I return to in section 5.

(7) British English (British National Corpus (BNC),⁸ KNF 769)

Once you've made your call, they might ask you to stay by the phone erm, to, to contact you back it might be that they ask you **did you want anybody contacted to tell them that, that you've broken down**, they will do that for you.

Rel-V2s, perhaps unsurprisingly, differ from comp-V2 and EIs in that their tense (and the resulting comment that they make) may anchor to the discourse content.

(8) German (adapted from Gärtner 2001: 103)

Ich war letztes Jahr in einem Land, [da kostet/kostete das Bier ein Vermögen].
I was last year in a country there costs/cost the beer a fortune
“I was in a country where beer cost(s) a fortune.”

(9) German (constructed)

Letztes Jahr habe ich mit Maria gesprochen, die ist/war schwanger.
last year have I with Maria spoken that is/was pregnant
“Last year I spoke to Maria, who is/was pregnant.”

Sequence of tense is, of course, not relevant to embedded imperatives.

⁷ Unless otherwise noted, constructed German examples were constructed by the author and checked/amended by first language German consultants. Judgements, corrections and suggestions were kindly provided by Hans-Martin Gärtner, Alex Göbel, Johannes Heim, Magdalena Kaufmann and André Meinunger. I am responsible for any remaining errors and for the interpretation of their data.

⁸ Examples of usage taken from the British National Corpus (BNC) were obtained under the terms of the BNC End User Licence. Copyright in the individual texts cited resides with the original IPR holders. For information and licensing conditions relating to the BNC, please see the web site at <http://www.natcorp.ox.ac.uk/>.

2.1.2. Indexicals anchor to current discourse context

Indexicals such as personal pronouns are dependent for their featural specification on the matrix clause and do not shift in indirect speech or embedded root clause, while doing so in direct speech reports.

(10) German (constructed)

- a. Maria_i sagt, Sabine geht nach meinem_{speaker} Hause.
Maria says Sabine goes to my.DAT house
"Maria says that Peter is going to my house."
- b. Maria_i sagt, ``Sabine geht nach meinem_i Hause."
Maria says Sabine goes to my.DAT house
"Maria says "Sabine is going to my house."

(11) Scottish English (EII attested)

- a. She_i had considered whether she_i should keep going or not. Indirect speech
- b. She_i had considered should she_i keep going or not. EII
- c. She_i had considered, "Should I_i keep going or not?" Direct speech

(12) Tyneside English (attested, at a train station)

The guard_i usually says PRO_j wait for me_{speaker} but they_j often don't [wait for me_{speaker}].
Subject of the imperative = onboard train crew

I will briefly note here that not only indexicals, but also other perspectivally-oriented elements obligatorily shift in EIIs, including discourse particles and verbs of motion towards a perspectival centre:

(13) Yorkshire English (attested)

Context: Liz visited a town she used to live in and bumped into an old friend, who invited her to their house for coffee. She is reporting the encounter some weeks later.
They_j said oo, could we_i come over for coffee so we_i did [go over for coffee]

Returning to morphological shifting, German embedded imperatives differ from English embedded imperatives, EIIs and comp-V2. Kaufmann (2015: 8) suggests that first-person indexicals may shift in German embedded imperatives, but second-person indexicals may not:

(14) German (Kaufmann 2015: 8)

Hans_i hat dir doch gestern schon gesagt, ruf meinen_{i, speaker} Vater an.
Hans has you.DAT PRT yesterday already told call.IMP my father to
"Hans_i already told you yesterday, call my_{i, speaker} dad."

(15) German (based on Kaufmann 2015: 8)

Hans_i hat doch gestern schon gesagt, ruf deinen_{addressee/*speaker} Vater an.
Hans has PRT yesterday already told call.IMP your father to
"Hans already said *(to me) yesterday, call your_{addressee/*speaker} dad."

This emerges from work by Kaufmann and Poschmann (2013: 634-5) that demonstrates a contextual requirement that the addressee of an embedded imperative be the same in both the original and current discourse context.

2.2. Syntax

2.2.1. Multiple embedding/stacking

As McCloskey (2006: 89) notes, English EIs can be embedded under multiple clauses:

(16) Irish English (McCloskey 2006: 89)

I don't think I was ever asked did I see any Provos, Stickies, or anyone.

(17) Yorkshire English (attested)

I'll remember Jo in the voting lobby in her cycling kit and wondering where did she get the energy.

The same applies to German comp-EV2, though judgements vary between speakers.

(18) German (constructed)

Anna glaubt, Maria sagte, Peter ist glücklich.

Anna thinks Maria said Peter is happy

"Anna thinks Maria said Peter is happy."

Given the specific pragmatic effects of British English *fuck*-inversion, in particular its obligatorily negative interpretation and taboo word requirement, multiple embedding is independently difficult to construct:

(19) British English (constructed)

*He thought was she fuck really saying would she fuck go to the party, she just didn't want to admit it.

Multiple embedding is in principle possible in English embedded imperatives:

(20) British English (constructed)

He_i said don't tell him_i don't talk to your_{addressee} girlfriend

It is not possible, however, in German embedded imperatives:

(21) German (constructed)

*Hans sagte, sag deinem Vater, ruf deine Mutter an.

Hans said say.IMP your.DAT father call your mother up

Intended: "Hans said tell your father call your mother."

Finally, 'stacking' of rel-V2 clauses is degraded:

(22) German (Gärtner 2001: 131)

?Ich kenne Leute, die studieren Syntax, die wissen das.

I know people that study syntax that know that

"I know people who study syntax who know that."

2.2.2. Clausal position

German EV2 clauses typically appear following the embedding predicate. It is possible, though dispreferred, to prepose them before verbs of saying when the matrix clause is made informationally prominent (Freywald 2018, Reis 2021). However, preposing is not possible with other verbs that may (less canonically) permit EV2, such as *entdecken* ('discover'):

(23) German (constructed based on Reis 2021: 170)

Du sollst morgen zum Chef kommen, hat HANS zu dir gestern gesagt.

you should tomorrow to-the boss come has Hans to you yesterday said
"You should go to the boss tomorrow, Hans told you yesterday."

(24) German (constructed based on Reis 2021: 170)

*Du sollst morgen zum Chef kommen, hat HANS gestern entdeckt.

you should tomorrow to-the boss come has Hans yesterday discovered

Intended: "You should go to the boss tomorrow, Hans has discovered."

Like indirect speech reports, EIs typically cannot be uttered without an embedding attitude predicate and must appear to the right of that predicate ((25)a-(25)e). An apparent counterexample to this in (25)f is most likely a case of Free Indirect Discourse⁹ (cf. e.g. Banfield 1982), given how it degrades when the embedded subject is switched to second-person, as shown in (25)g. (25)h-(25)j demonstrate again how these positional restrictions do not hold in direct quotation.

(25) British English (constructed)

- a. *If he would cook dinner for me.
- b. *If he would, I asked, cook dinner for me.
- c. *If he would cook dinner for me, I asked.
- d. *Would he cook dinner for me.
- e. *Would he, I asked, cook dinner for me.
- f. Would he cook dinner for me, I asked.
- g. ??Would you cook dinner for me, I asked.
- h. "Will you cook dinner for me?"
- i. "Will you," I asked, "cook dinner for me?"
- j. "Will you cook dinner for me?" I asked.

English embedded imperatives can superficially appear without an embedding predicate, but the interpretation of the imperative changes: while in (26)a the speaker is interpreted as the subject of the imperative, in (26)b, the addressee is typically interpreted as the imperative subject. In other words, they are interpreted as root imperatives.

(26) British English (Constructed)

- a. I was talking to him_i, then over comes his_i partner so he_i says PRO_{speaker} don't call him_i
- b. PRO_{addressee} don't call him_i

English embedded imperatives seem to be preposable, but only if the original and current addressee are coreferential. Moreover, there is a greater sense in (27)a that the speaker is strongly endorsing, even re-issuing the command.

(27) British English (constructed)

- a. ?Don't call him_i, he_i said.
- b. *Don't call him_i, he_i told her.

Note that speaker endorsement of the command is not an obligatory reading in English imperatives: in the attested example in (28), the speaker is perfectly happy not endorsing the imperative to not speak to him, as it winds his cricketing opponent up.

(28) Caribbean English (attested)

Stokes_i doesn't learn, because they_j keep telling him_i PRO_i do not speak to me_{speaker}

⁹ For more on how EIs differ from Free Indirect Discourse, see Woods (2016: 71-75).

German embedded imperatives, like English ones, cannot appear without an embedding predicate as they are interpreted as root imperatives:

- (29) German (constructed)
Fahr schon früher!
Go.IMP already earlier
"Go earlier, already!"

In the case that they are preposed relative to an embedding predicate, they are interpreted as directly quoted speech:

- (30) German (constructed)
Fahr schon früher, sagte Magda
Go.IMP already earlier said Magda
Actual reading: "Go earlier, already!" said Magda

Finally, German rel-V2 cannot be fronted via topicalization or pied-piping with the DP it modifies:

- (31) German (Gärtner 2001: 99-100)
- a. *[Jemanden, [den nennen sie Wolf-Jürgen,]]_i suche ich t_i
someone that call they Wolf-Jürgen look_for I
Intended: "Someone that they call Wolf-Jürgen, I'm looking for."
 - b. *Ich höre, dass [jemand, [der heisst Wolf-Jürgen]], der Königin vorgestellt wurde.
I hear that someone that named Wolf-Jürgen to-the queen introduced became
Intended: "I heard that someone who is called Wolf-Jürgen was introduced to the queen."

2.2.3. Extraction

English EIs allow some types of wh-phrases to be extracted, specifically locative and temporal wh-phrases.

- (32) British English (Woods 2016: 267)
When_i did Olly ask would you swim the Channel t_i?

Woods (2016: 94) reports on a small-scale grammaticality judgement task in which extraction from embedded illocutionary acts was judged as intermediate in terms of its acceptability between direct speech reports (generally judged poor) and indirect speech reports (generally judged good).

Extraction of the same types of adjunct is also possible out of English embedded imperatives, as demonstrated by the attested example in (33).

- (33) British English (BNC, J91 378 (speech))
Where did I say find the gradient? Where X [is] equal to three?

Crnič and Trinh (2009) further claim that arguments can be extracted from English embedded imperatives according to "most of [their] consultants", though I do not share this judgement:

- (34) English (Crnič and Trinh 2009: ex.7d)
%Who did John say call at three?

With respect to German embedded imperatives, arguments also appear to be available for extraction, according to Kaufmann 2012:

- (35) German (Kaufmann 2012: 210-211)

Wo hab ich gestern gesagt stell den Blumentopf hin?
 where have I yesterday said put.IMP the flowerpot VERB_PRT
 ``Where I did I tell you yesterday to put the flowerpot?"

Reis (2021: 179), however, suggests that examples like (35) do not showcase true long-distance wh-extraction out of an embedded imperative, but are instead a type of echo question, given that their acceptability degrades when adverbs like *eigentlich* ('actually'), which promote a 'true' information-seeking reading, are inserted in the matrix clause.

(36) German, Reis 2021: 179
 ??Wo hat Hans eigentlich gestern gesagt, stell den Blumentopf hin?
 where has Hans actually yesterday said put.IMP the flowerpot to
 Intended: "Where did Hans actually say, put the flowerpot?"

Finally, the literature is mixed with respect to German EV2. Müller (2010) demonstrates that extraction can proceed from an EV2 clause if and only if the destination clause is also V2; if it is verb final, neither arguments nor adjuncts may be extracted:

(37) German (Müller 2010)

- a. Wen_i meinst du t_i hat sie getroffen?
 whom think you has she met
 ``Who do you think she met?"
- b. *Ich weiß nicht wen_i (dass) du meinst t_i hat sie getroffen?
 I know not whom that you think has she met
 Intended: ``I don't know who you think she met."
- c. *Wen_i glaubt er t_i dass du meinst t_i hat sie getroffen?
 whom believes he that you think has she met
 Intended: ``Who does he believe that you think she has met?"
- d. *Ich weiß nicht wie_i du meinst t_i soll das t_i gehen
 I know not how you think should that work
 Intended: ``I don't know how you think that should work."

Analyses of (37)a vary, including a special 'integrated' parenthetical analysis of "meinst du" (e.g. Reis 1995, among others) or drawing distinctions between the highest projection of V2 vs. verb-final clauses (Sternefeld 1992, Williams 2003, Müller 2003). However, a notable difference between German and English is that not all dialects of German permit extraction from *dass* ('that') clauses, yet extraction from EV2 clauses like (37)a does not pattern with extraction from *dass*-clauses anyway (Reis 1995: 50), casting doubt on analyses of "true" extraction. Moreover, there exist a group of examples of extractions from V2 that cannot be analysed as parentheticals - namely extractions from EV2 under preference predicates - and in these cases only adjunct extraction is permitted:

(38) German (Reis 1995: 76-77)

- a. Dorthin ist es besser, du gehst zu Fuß.
 there-to is it better you go by foot
 ``It's better if you go there on foot."
- b. *Die Papiere wäre es besser, du würdest sofort vernichten.
 the papers was.SUBJ.II it better you would right.away destroy
 ``It would be better if you destroyed the papers right away."

Finally, with respect to German rel-V2, Gärtner (2001, fn. 3) suggest that rel-V2 is opaque to extraction, though he marks the example in (39) as ?? rather than *:

(39) German (Gärtner 2001: fn.47)

??Peter hat ein Radio, [das_i weiss ich leider nicht, wie man t_i repariert].
Peter has a radio, that_{ACC} know I unfortunately not, how one repairs
“Peter has a radio, that I unfortunately don’t know how one would repair.”

2.2.4. Binding

Binding behaviour in EIs differs from indirect speech reports but shows evidence of true syntactic embedding. Quantifiers in the subject position of the matrix clause can bind into embedded illocutionary acts, but direct object quantifiers cannot.

(40) British English (Woods 2016: 83)

- a. [Everyone]_i wondered would Jack ask her_i out.
- b. [Everyone]_i wondered if Jack would ask her_i out.
- c. *[Everyone]_i wondered, “Will Jack ask her_i out?”
- d. *Mary asked [everyone]_i could she take him_i to the dance.
- e. Mary asked [everyone]_i if she could take him_i to the dance.
- f. *Mary asked [everyone]_i, “Can I take him_i to the dance?”

In English embedded imperatives, quantified subjects may also bind into the imperative:

(41) English (Crnič and Trinh 2009)

When I visited Beijing University, every professor_i said buy his_i book.

Judgments in German are more mixed, but the following example is judged good by some consultants:

(42) German (M. Kaufmann, p.c.)

%Sicher wird dir [jeder Junge]_i hier sagen ruf seinen_i Vater an.
Certainly would to.you every boy here say call his father up
“Certainly, [every boy]_i here would tell you call his_i father.”

German EV2 allows binding by the subject into the EV2 clause, though some speakers prefer the subjunctive form of the verb (cf. Reis 1995).

(43) German (Reis 1997: 139)

Jeder_i möchte gern glauben, er_i ist unheimlich beliebt.
everyone would happily believe he is uncannily popular
“Everyone_i would like to believe he_i is incredibly popular.”

German comp-EV2 and embedded imperatives diverge, however, in that quantified indirect objects may bind variables in comp-EV2 but not in embedded imperatives:

(44) Ich habe jedem_i gesagt, er_i muss Moby Dick lesen.

I have everyone.DAT said he must Moby Dick read.

“I told each of them, he must read Moby Dick.”

(45) *Ich habe jedem_i gesagt, ruf seinen_i Vater an.

I have everyone.DAT said call.IMP his father up

Intended: “I told each of them to ring his father.”

Finally, German EV2 in relative clauses bleeds binding by a quantifier in the matrix clause:

Intended: "I already proposed yesterday go there today."

2.3.2. Pragmatic opacity

Kaufmann (2012, 2015) notes that German embedded imperatives are pragmatically opaque, in that the speaker cannot simultaneously report an embedded imperative and deny it in the same discourse context, though the original and current discourse can differ as to whether the act holds (compare (53)-(54)). The same holds of English embedded imperatives (see translations of (53)-(54)) and EIs.

(53) German (Kaufmann 2015: 8-9)

Ich hab dir zwar gestern noch gesagt geh da heute hin, aber inzwischen

I have you though yesterday still told go.IMP there today VERB_PRT but in.the.meantime
glaub ich nicht mehr, dass du das machen solltest.

believe I not more that you that do should

"I told you yesterday go there today, but in the meantime [I decided] I don't believe you should do that anymore."

(54) German (Kaufmann 2015: 9)

Ich hab dir gestern gesagt geh da heute hin, #aber auch dass ich das nicht will.

I have you yesterday told go.IMP there today VERB_PRT but also that I that not want

"I told you yesterday to go there today, but also that I don't you want you to."

(55) British English (constructed)

a. I asked him would he cook dinner for me but in the meantime, I decided that he needn't bother.

b. I asked him would he cook dinner for me #but I didn't actually ask him that.

Sode and Truckenbrodt's (2018) survey of verbal mood in EV2 suggests that German comp-EV2 is also pragmatically opaque in that EV2 order cannot be used felicitously when the speaker expresses that they do not (or no longer) endorse the embedded proposition:

(56) German (Sode and Truckenbrodt 2018: ex. 60)

Was ich damals glaubte, ist/war, Maria ??ist/*war in Saarbrücken.

what I then believed is/was Maria is/was in Saarbrücken

"What I believed at the time is/was that Maria is/was in Saarbrücken."

However, native speaker judgements on EV2 that I have collected do not necessarily bear this out:

(57) German (constructed)

Maria sagte sie ist krank, aber ich weiß dass sie lügt.

Maria said she is ill but I know that she lies

"Maria said she is ill but I know she's lying."

Despite this, EIs, English embedded imperatives and German EV2 can be negated with a wide scope reading of negation, in the sense that one can report that they did *not* produce an equivalent act in the original discourse, though the implicature remains that some act was still produced:

(58) British English (adapted from Woods 2016: 87)

I didn't ask were you coming last night - I asked was *Mary* coming.

(59) US English (attested 18 May 2018)

I didn't say don't interview them [survivors]. I said don't interview them in the first minutes after surviving a massacre.¹⁰

(60) German (Truckenbrodt 2006: 296)

Hans glaubt nicht, Peter hat gewonnen(, er glaubt nur, dass Peter gut abgeschnitten hat).

Hans thinks not Peter has won he thinks only that Peter good come.off has

``Hans does not believe that Peter has won (he only believes that Peter has done well)."

German embedded imperatives seem to differ, as some speakers report preferring to interpret the imperative as a direct quotation rather than as an indirect embedding:

(61) German (constructed)

Ich sagte nicht, ruf meinen Vater an - ich habe gesagt, ruf meine Mutter an!

I said not call.IMP my father up - i have said call.IMP my mother up

Intended: ``I didn't say call my dad, I said call my mum!"

2.4. Summary

Table 2 summarises below the characteristics of the four embedded root clauses of interest in German and in English. Light grey shading indicates groupings of common characteristics; dark grey shading indicates a second distinct group with respect to multiple embedding and clausal position:

Table 2: Morphosyntactic, syntactic and pragmatic characteristics of embedded root clauses

	Ells	Embedded imperatives	Rel-EV2	Comp-EV2
Sequence of Tense	✓	N/A	✗	✓
Indexicals anchor to current context	✓	✓ (German: current addr. =original addr.)	✓	✓
Multiple embedding	✓	% English * German	? (stacking)	%✓
Position	Follows predicate and utterance-final, cannot be fronted	Utterance-final (preferred), cannot be fronted	Follow the matrix clause, cannot be fronted	Follows predicate and utterance-final; can marginally be fronted
Extraction	Adjuncts only	% (German) Adjuncts only (English)	??	✓ into other V2 clauses; adjuncts only over preference predicates
Binding	Matrix subject only	% (German) Matrix subject only (English)	*	✓

¹⁰ Taken from <https://twitter.com/JonAcuff/status/997566058142760961>, last accessed 29 Sep 2023. For context and to demonstrate that this is not strictly a direct quotation, the original tweet reads: "I don't think we should immediately shove a camera and a microphone in the face of a 15yo who has just survived a school shooting minutes ago. That's for ratings not healing. We need their voices but not in the 1st minutes of PTSD. We use victims as props and it's gross." A reply reads: "Not interviewing people directly impacted by events (both good and bad) sort of defeats the purpose of the news and journalism."

Restrictions on embedding predicates	Rogative predicates; say	Say/tell	N/A	speech act predicates, doxastic non-factives, doxastic factives, preference predicates
Pragmatic opacity	✓, can be negated	✓, can be negated	*	%, can be negated

We can see that EIs and Comp-EV2 are very similar barring the predicates that can embed them (this is of course not a surprising difference). Embedded imperatives also pattern broadly similarly, except with respect to multiple embedding and clause position, where they pattern more closely with rel-V2. Bearing these patterns in mind, I will now sketch the approach I will take to the structure of the left-periphery in section 3, arguing, as others before me, that embedded root clauses in Germanic are larger syntactic objects than their non-root or V-in-situ counterparts. I will then discuss the mechanisms of attachment for these extended clauses in section 4.

3. Syntactic preliminaries

In this section I will sketch the syntax of the left periphery that I will employ in this paper. It is a simplified version of the proposal in Woods (2016) and will not contain formal semantic detail, so readers who would like extended background to the idea may find it there, along with details of previous proposals to which it owes an intellectual debt, most notably those by Speas and Tenny (2003), Hill (2007a,b, 2014), and Haegeman and Hill (2013). A similar idea was also later proposed in Dayal (2023). Readers may also notice similarities with proposals by Krifka (2014, 2023), Wiltschko and Heim (2016) and Wiltschko (2021), however some important divergences from these approaches are made and will be flagged along the way (see also Woods 2021: 149 for a visual representation of how some of the key approaches, as well as the classic cartographic approach of Cinque (1999), differ from each other).

It is proposed that the left periphery consists of three projections, separating propositional material (in CP and its daughters) from material that increasingly links to discourse. This is shown in (62) below:

(62) [SpeechActP [IllocutionaryActP [CP [TP ...]]]]

SpeechActP¹¹ (SAP), the outermost projection, links directly to the discourse as it expresses the speaker's expectations about the continuation of the discourse by marking whether a speaker invites the addressee to follow up (in Wiltschko's terminology, whether the addressee is called on to respond). This can be marked through a range of means, most commonly discourse particles (e.g. sentence final particles in Cantonese, see Lam 2014; Canadian English *eh* and *huh*, see Wiltschko 2021) or final intonation tones (e.g. Korean, see Ceong 2019). The utterance of a full SAP, therefore, not only adds information to the discourse context but also marks that an act has been performed in the current context. For the purposes of this paper, I will claim that the SAP contains a feature I will name [project] (pronounced like the verb), whose values include [accept], [confirm], and [enact].

¹¹ I recognise here that terminology such as "speaker" and "speech act" can be exclusionary and ableist. I use the terms "speaker" and "speech act" throughout because the primary empirical data is spoken English/German/Swedish/Dutch, but I believe that the theoretical preliminaries here and the grammars proposed can apply whether or not the interlocutors in question use spoken or signed languages.

These features correspond to calls upon the addressee by the speaker and determine the realisation of overt material in SAP.

In terms of when/where SAP is projected, matrix utterances are typically SAPs. Relatedly, I expect that SAP will not be embeddable in many typical embedding contexts, and that where it is embeddable, the act performed by the embedded SAP must be addressed at the same time as the act performed by the matrix SAP. It is possible that, in certain languages, it is not embeddable at all, whether for syntactic or pragmatic reasons (see Krifka 2023 for a divergent point of view).

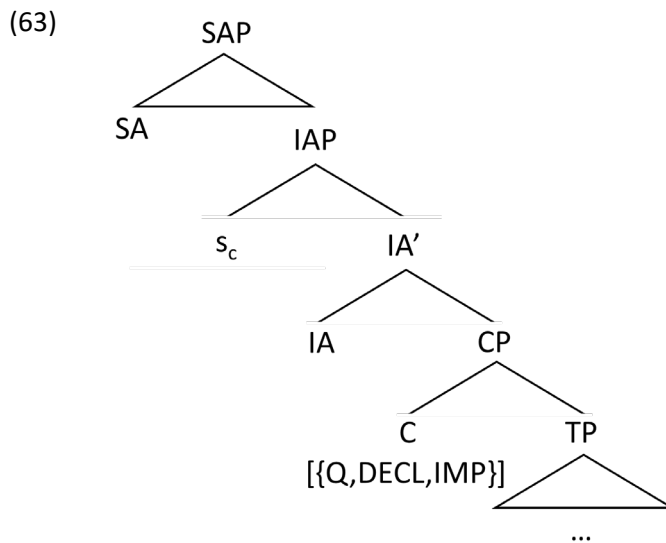
The Illocutionary Act Phrase (IAP) links the SAP to the propositional material in CP. It expresses speaker perspective or intent with respect to the material in CP, outwith the speaker's expectations on how the addressee might respond, though these concepts are, clearly, related. Material in the IAP may refine the speaker's intentions with respect to a potentially plurifunctional clause type, for example by marking that a clause should be interpreted as a request, whether it is an interrogative clause with a canonical question interpretation or an imperative clause with a canonical command interpretation (e.g. utterance initial *please* in English, see Woods 2021). It might also house in its head metalinguistic operators, such as extrapositional negation. This type of negation negates some aspect of the interpretation (in Horn's 1985 terms, the assertability of the proposition), but not the propositional content, of structures such as negative biased questions (Woods and Roeper 2021, in press) or contradiction negation (Horn 1985). The IA head may also host verbal morphology, as in the independent-conjunct clause marking system of Plains Cree (Cook 2008, 2014), where independent marking is syntactically outside the propositional content, and independent-marked clauses express strong speaker commitment and affect towards the propositional content. For the purposes of this paper I will assume that the IA head achieves these realisations via a feature [intent], whose values may vary from language to language.

Given that the IAP functions to express a speaker's perspective, I argue that it also hosts in its specifier a situation pronoun (of the kind proposed by Schwarz 2012) that can mediate between the discourse situation and the proposition, or a matrix clause and the proposition, to determine from whose perspective the embedded proposition is to be understood. In contrast to Dayal (2023), I propose a situation pronoun consisting of a tuple of parameters for speaker, addressee, world of discourse *and* a perspective holder, rather than PRO. This is because we will see that embedded root clauses can vary across and within languages with respect to which of the interlocutors can shift from the current discourse context, such that PRO cannot capture the complexity of the shifting phenomena at issue here, especially in German.

The utterance of an IAP, then, is not in itself a complete act within the discourse, but expresses some aspects of the speaker's intent, attitude and perspective that are not necessarily encoded in the propositional content of the utterance. Indeed, we expect such material to be not-at-issue in the sense of Simons (2007) and others.

Finally, CP is the locus of clause-typing features that may have a syntactic reflex (e.g. verb movement) or a morphological reflex (e.g. determining the form of a clause-typing morpheme), as well as a semantic reflex (e.g. taking a proposition and returning a set of propositions, as in an interrogative clause). Coniglio and Zegrean (2012) were early proponents of separating clause-typing from speaker perspective due to the way in which discourse particles in Romanian (and other languages) cross-cut clause types. An utterance of CP, therefore, is an utterance of propositional content only, and interpretations of that content relative to a specific discourse content must be mediated via further structure.

Therefore, the full left-periphery that may be available for embedding in Germanic is shown in (63), where s_c is the situation pronoun indexed with respect to some context:



How does this structure permit embedded root clauses to take the form that they do? In line with classic CP-recursion approaches to the syntax of V2 (Platzack 1986, Iatridou and Kroch 1992, Holmberg and Platzack 1995, Vikner 1995 amongst others) and EIs (McCloskey 2006), the structure permits the presence of both verb movement and other root-related phenomena in these structures, be that the inclusion of (certain) left-peripheral discourse particles or left-adjunction, which typically cannot occur in a position that is directly selected by a lexical head (cf. Chomsky's 1986 Adjunction Prohibition).

- (64) British English (Woods 2016: 78)
 James asked please would I help him
 Compare: *James asked if please I would help him

It also explains why, as we saw in section 2.2.3, adjuncts can be readily extracted (as they can adjoin to these non-selected left-peripheral heads) but arguments cannot (as the extended left-periphery acts as a barrier to successive cyclic movement, its heads containing no triggers to facilitate such movement). Moreover, these facts fall out without stipulating a process of CP-recursion which is arbitrarily restricted to a single occurrence.

Finally, this structure allows us to map clearly the similarities and the differences between the constructions of interest in this paper and the equivalent matrix clause constructions, which sheds light on how perspectival and indexical phenomena link to contexts and context triggers both in these embedded contexts but also in matrix clauses.

4. Syntactic mechanisms

In this section, I will investigate how embedded root clauses consisting either of full SAPs or of IAPs link to matrix clauses such that the empirical facts laid out in sections 1 and 2 fall out.

I will propose that some languages allow SAPs/IAPs to be selected by predicates that typically select CPs – this has also been argued by Krifka (2023) for German and is implied in Djärv's (2022) work on Swedish. However, not all languages allow complementation of SAP/IAP, and indeed, I will argue that German is one such language.

Building on ideas and proposals by Reis (1995, 1997, 2016, 2023), Gärtner (2001), Meinunger (2006) and Truckenbrodt (2006), I propose that German V2 clauses can be linked to a matrix clause paratactically at two levels, resulting in the wider range of EV2 clauses in German compared with Swedish or Dutch.

As for English, I propose that EIs and embedded imperatives are paratactically linked to the matrix clause (building on Woods 2016, 2020) and are not selected (contra Dayal 2023 on EIs). This explains the similarities we have already seen between English EIs and German comp-EV2, as well as the respective languages' embedded imperative constructions.

The differences between English and German, in particular the absence of EIs in German, cannot be accounted for under this syntactic analysis alone. They will therefore be argued to have pragmatic roots in section 5.

4.1. Complementation

Given the characteristics laid out in section 2 it is unlikely that German and English embedded root clauses are selected by an embedding predicate. The restrictions on which predicates can combine with embedded root clauses cannot be explained, especially the interaction of negation with EV2 availability, and the restrictions on binding are not expected either.

However, for Swedish, Djärv (2022) argues that complementation as in (65)b is a valid option for linking an EV2 clause with the matrix predicate.

- (65) Swedish (example (1a) repeated)
- a. Johan sa att hon köpte inte en ny bil.
 ``Johan said that he didn't buy a new car."
 - b. [_{SAP} [_{SA} RESPONSE:ACCEPT] [_{IAP} [_{IA} INTENT:ASSERT] [_{CP} Johan sa [_{IAP} [_{IA} ASSERT att] [_{CP} hon köpte inte en ny bil]]]]]

Firstly, like other Mainland Scandinavian languages, the complementiser *att* may not be dropped. Secondly, the syntactic restrictions that apply to Swedish comp-EV2 clauses (that they must follow the predicate, resisting wh-extraction and restrictions on compatible predicates) can also apply to non-V2 clauses in Swedish according to Wiklund (2010), especially when they contain discourse-linked elements like speech act adverbs or taboo words:

- (66) Swedish, Wiklund 2010: 85
- a. Hon sa att han ärligt talat inte hade förstått det. V-in-situ
 she said that he honestly speaking not had understood that
 "She said that, honestly speaking, he had not understood that."
 - b. Hon sa att han hade ärligt talat inte förstått det. V2
 she said that he had honestly speaking not understood that

Moreover, Djärv (2022) argues that the availability of comp-EV2 in Swedish is not strictly determined by the properties of the embedding predicate. She presents the data in (67) to argue that the restrictions on embedding predicates is pragmatic in nature because both (66)a and (66)b express the same point and are equally grammatically acceptable, even though (66)b does not contain a canonical V2 embedding predicate like *tycka* ('think'). Djärv claims that the matrix clause must simply "frame [the] discourse move represented by the embedded [EV2] clause" (Djärv 2022: sect. 5) adequately.

- (67) Swedish (Djärv 2022: exs. 59-60)

- a. håller med de som tycker att andra ska inte bli lidande!
agree with those who think that others should not be suffering
“Agree with those who think that others should not have to suffer!”
- b. håller med att andra ska inte bli lidande!
agree with that others should not be suffering
“agree that others should not have to suffer!”

Given these facts, it seems likely that Swedish comp-EV2 is in fact linked to the matrix clause via a complementation relation, mediated through judgements of pragmatic felicity concerning the “framing” of the embedded clause as a discourse move in the current discourse.

4.2. Parataxis

I will now consider languages in which embedded root clauses show greater distinction from indirect speech reports, principally in that indirect speech reports do not show the same syntactic restrictions as embedded root clauses. For these languages, I will claim, building on the work mentioned earlier, that embedded root clauses are paratactically linked to the matrix clause - essentially, that they are specificational modifiers somewhat analogous to appositive relative clauses that modify a null argument. Crucially, depending on the position of the null argument and its associated specifying clause, different syntactic restrictions result.

4.3. Parataxis at IAP

One plausible adjunction point is at IAP as the highest point at which propositionally-linked material is generated, and hence the highest point at which modifiers pertaining to propositional material can attach. Specificational EV2 clauses (that is, IAPs) attached at this point will be obligatorily utterance-peripheral and will resist multiple embedding, though any material in the matrix SAP and IAP may scope over the adjoined IAP. As shown in Table 2, rel-V2 and German and English embedded imperatives are utterance peripheral and resist multiple embedding/stacking (with some individual variation in the case of English embedded imperatives).

I therefore propose, in close homage to the analysis of German rel-V2 proposed by Gärtner (2001), the following analysis for rel-V2 and embedded imperatives. ParP stands here for Paratactic Phrase and the head of the ParP carries a [+relative] feature, as in Gärtner’s original analysis.

(68) German (example (2c) repeated)

- a. Das Blatt hat eine Seite, die ist ganz schwarz.
“The piece of paper has one side that is completely black.”
- b. [SAP [SA PROJECT:ACCEPT] [ParP [IAP [IA INTENT:ASSERT] [CP Das Blatt hat eine Seite]] [Par ØREL] [IAP [IA INTENT:ASSERT] [CP die ist ganz schwarz]]]

(69) British English (example (2)d repeated)

- a. He’s throwing a party that am I fuck going to attend.
- b. [SAP [SA PROJECT:ACCEPT] [ParP [IAP [IA INTENT:ASSERT] [CP He’s throwing a party]] [Par ØREL] [IAP [IA INTENT:ASSERT] [CP that am I fuck going to attend]]]

(70) German (a. from Kaufmann 2015: 8)

- a. Claudia hat gesagt, fahr schon früher.
- b. [SAP [SA RESPONSE:ACCEPT] [ParP [IAP [IA INTENT:ASSERT] [CP Claudia hat Ø gesagt]] [Par Ø] [IAP [IA INTENT:COMMAND] [CP fahr schon früher]]]

(71) British English (example (3)d repeated)

- a. He said don't talk to his girlfriend.
- b. [_{SAP} [_{SA} RESPONSE:ACCEPT] [_{ParP} [_{IAP} [_{IA} INTENT:ASSERT] [_{CP} He said \emptyset]] [_{Par} \emptyset] [_{IAP} [_{IA} INTENT:COMMAND] [_{CP} don't talk to his girlfriend]]]]]

Note also that German embedded imperatives can occur in relative clauses, though English ones cannot:

(72) German (Stegovec and Kaufmann 2015: 655)

Die Platte hat eine Seite, die hör dir lieber nicht an.
 the record has one side that listen.IMP you.DAT better not to
 "The record has one side that you'd do better not listening to."

(73) British English (constructed)

*The record has one side that don't bother listening to.

As a result, the proposal in (70)b cannot be the last word for embedded imperatives, certainly in English. Moreover, English speakers, and speakers of some German dialects, accept binding by the subject of the matrix clause into the imperative, as in (42), reproduced here as (74):

(74) German (M. Kaufmann, p.c.)

%Sicher wird dir [jeder Junge]_i hier sagen ruf seinen_i Vater an.

It is also that case that rel-V2 clauses are always interpreted as discourse-new assertions by the current speaker, but both German and English embedded imperatives can shift: German embedded imperatives can shift from the current to an original perspective holder (speaker or other author), though the addressee must be the same in both the original and current contexts (cf. Kaufmann and Poschmann 2013). In contrast, English embedded imperatives can shift both speaker(/perspective holder) and addressee to the original context (see examples (12) and (28)).

The difference between German and English with regards to perspective shifting will follow in section 5, but to account for the binding facts, I propose that embedded imperatives start out attached much lower than CP, namely to DP, but then move out to adjoin paratactically to IAP – obligatorily in the case of German, optionally in the case of English. This is to ensure that the command expressed by the imperative takes wide scope over the matrix predicate and is interpreted as not only the content of the utterance, but also the motivation for making it, in the sense that the embedded imperative is being reported in this form in order for its content to be enacted. There is a subtle distinction in the following two examples, constructed in British English, which both contain an embedded imperative under *say*, but only (75)b contains a further embedded imperative under *tell*:

(75) British English (constructed)

- a. I'm saying just tell yourself not to let him bamboozle you.
- b. I'm saying just tell yourself don't let him bamboozle you.

Both examples convey the information that the speaker wants the addressee to reflect and ultimately not let themselves be bamboozled. However, the example in (75)b reads as if the speaker's principal command is the second one, not to let themselves be bamboozled, whereas in (75)a, the exhortation centres on the self-talk. In order for the second command to be the principal discourse move, almost to the exclusion of the first command, I suggest that it must move to be adjoined to IAP, where it can modify the speaker's intent in addition to propositional material (that is, that which is being said).

As such, the revised analysis for embedded imperatives (optional for English, obligatory for German) is given in (76):

- (76) German (a. from Kaufmann 2015: 8)
- a. Claudia hat gesagt, fahr schon früher.
 - b. [_{SAP} [_{SA} RESPONSE:ACCEPT] [_{ParP} [_{IAP} [_{IA} INTENT:ASSERT] [_{CP} Claudia hat [_{ParP} [_{DP} ∅] [_{Par} ∅] [_{t_i]} gesagt]]] [_{Par} ∅] [_{IAP} [_{IA} INTENT:COMMAND] [_{CP} fahr schon früher]_i]]]

This movement is analogous with embedded root constructions in reason-clauses (i.e. those headed by *because* in English or *weil* in German) which are ambiguous in scope between modifying the matrix clause and modifying the motivations for the speech act. Antomo (2012) in her work on EV2 in reason clauses notes that they are most readily accepted in the latter case when giving a reason for the speech act.

It should be noted here that Meinunger (2006) argues that German comp-V2 clauses extrapose to the left-periphery from their original position as the direct object of the matrix predicate. He claims that this extraposition occurs to allow the EV2 clause to be in the immediate scope of an assertion operator in SAP, from whence it can be asserted by the speaker in addition to the matrix clause. Moreover, this extraposition accounts for the fact that comp-V2 clauses are also preferably utterance final. However, this approach for comp-V2 cannot account for the ways in which comp-V2 differs from EV2, in particular the availability of multiple embedding, binding and extraction phenomena, and the fact that comp-V2 can be (marginally) fronted. As such, I propose that parataxis at the level of IAP (including extraposition to this level) is reserved for rel-V2 and some embedded imperatives.

On the subject of embedded imperatives, I now turn to the issue of their initial low attachment and demonstrate that it is also the site of attachment for EIs in English.

4.4. Parataxis at DP

Building on work in Woods (2016, 2020), I propose that EIs are paratactically adjoined to the direct object of the matrix clause, that is to say, to a DP, and I extend that to embedded imperatives here also. The proposed structure is shown in (77).

- (77) British English (constructed)
- a. I asked Jack would he cook tea for me.
 - b. [_{SAP} [_{SA} RESPONSE:ACCEPT] [_{IAP} [_{IA} INTENT:ASSERT] [_{CP} I asked Jack [_{ParP} [_{Par} ∅] [_{IAP} [_{IA} INTENT:QUESTION] [_{CP} would he cook tea for me]]]]]]]

Though in the canonical EI case the nominal is null, the proposed structure is motivated in part by the availability of EIs directly modifying overt DP arguments:

- (78) British English (BNC, JA3 46)
- We're er I was asked a question earlier on today erm how many assignments will I be looking after in any one time and I just said one.

- (79) British English (BNC, A07 1180)
- Finally, Father McKenna said he had one last question to ask. The question was would Colm like his mother and father to get divorced.

It is interesting to note that all EIs, but most obviously those following overt nominals, are specificational in the sense that they specify what the nominal, here [question], denotes in terms of

propositional and perspectival content, much like in paratactic approaches to appositive relative clauses (e.g. Potts 2005).

German comp-V2 can also specify the content of an overt nominal. Note that the example in (80) differs from rel-V2 in that it is not utterance-final, the nominal is a definite description (see Gärtner 2001 on how rel-V2 is excluded in such cases), and the subject is not a demonstrative *d*-pronoun:

(80) German (Reis 1997, 140)

Die Idee/Illusion/Hoffnung, er könne damit reich werden, beflügelt ihn.

the idea/impression/hope he could.SUBJ it.with rich become inspired him

“The idea/impression/hope that he could become rich with it inspired him.”

A DP-adjunction analysis captures the fact that the EII must follow the matrix predicate (and, when it is overt, the nominal object). It also captures the binding facts for EIIs and English embedded imperatives, as the subject of the matrix clause c-commands the EII and can therefore bind into it. Moreover, the ability for EIIs and embedded imperatives to shift is captured; the matrix predicate generates a viable context binder for the embedded situation pronoun which scopes over the EII/embedded imperative. Therefore, whereas rel-V2 must be interpreted from the perspective of the current discourse participants, EIIs/embedded imperatives can be interpreted from an ‘original’ perspective – indeed, EIIs and English embedded imperatives are typically evaluated in this way.

Similarly, comp-V2 can be interpreted with an ‘original’ perspective, in the sense that the speaker need not endorse the propositional material; it need only be new in the current discourse context (see Djärv 2022 and section 5.2 for further details). Recall that two key differences still obtain between English and the other languages at issue here: firstly, English embedded imperatives can shift addressee as well as speaker (see (12),(28)), and secondly, English is the only language that permits embedded interrogatives. In section 5 I will make a proposal linking these two facts based on pragmatic mechanisms available in English and not in the other Germanic languages under discussion here.

4.5. Parataxis at VP?

I have not yet made a firm proposal for the structure of German comp-V2. Truckenbrodt (2006) proposed that German comp-V2 clauses are generated in the object position of the matrix verb and adjoined (or extraposed) to the level of VP. While this is attractive for attempting to understand the preferred linear position of V2, Truckenbrodt motivates the movement on the basis of escaping the perspective afforded by the matrix predicate (the ‘original’ discourse context). Given that our empirical survey turned up little syntactic motivation to differentiate English EIIs from German comp-V2,¹² I propose on the grounds of economy that parataxis at VP probably does not constitute a mechanism for the attachment of embedded root constructions in the Germanic languages I am examining here.

4.6. Summary

In this section I proposed two main mechanisms for linking embedded root constructions in Germanic: complementation and parataxis, the latter at two sites: IAP and DP. It is proposed that Swedish comp-V2 differs from German and English in that it makes use of true complementation, whereas paratactic linking at DP is used in German and English for comp-V2, (some) embedded

¹² One syntactic difference is that indirect objects can bind into German comp-V2 but not into English EIIs. This is not solved by extraposition to VP (in fact it is compounded by it), but likely hinges on different positions for the base-generation of indirect objects in English and in German. I will not investigate that issue here for space reasons.

imperatives and, in the case of English, EIs. The implication here is that Swedish does not have recourse to paratactic linking for EV2 clauses at all, hence its lack of rel-V2, embedded imperatives and EIs. The hypothesis for Dutch is a little trickier given the dialectal nature of rel-V2. I hypothesise that Dutch comp-V2 is also true complementation, and that those dialects that allow rel-V2 have recourse to parataxis at IAP, but not at DP (hence no embedded imperatives in either group of dialects). This makes certain predictions about syntactic differences between Dutch and German comp-V2 with respect to wh-extraction, and interpretive differences, including the ability to “frame” EV2 and the expectation that non-V2 clauses may also contain interpretable speech act material. These predictions must await further study.

5. Pragmatic constraints

Though syntax can help us differentiate Swedish and Dutch on the one hand from German and English on the other, there are two differences between German and English that remain unexplained: (a) only English embedded imperatives can shift addressee as well as speaker, and (b) only English permits embedded interrogatives. I propose here that these differences arise from a difference in pragmatic rules between English and German, namely that in English, both speaker and addressee variables must shift together, whereas in German, only speaker variables may shift.

There is independent evidence that German and English may differ in terms of default interpretation of situations under attitude predicates. Schwarz (2012) notes that he and Ezra Keshet, in their respective work¹³ on situation pronouns, differ in their judgement as to whether transparent interpretations are available in contexts such as the following:

- (81) Context: The teacher thinks the glasses A, B, and C, which contained a clear liquid, were filled with vodka (they actually contained water).
- a. The teacher thinks John should be punished because he drank glasses A, B, and C.
 - b. The teacher thinks John should be punished because he drank every glass with water in it.

Schwarz (2012, pp.35-36)

Schwarz claims that a transparent interpretation of the context (81)b is available, while Keshet’s judgements are consistent with the claim that only the opaque reading in (81)a is available. In this way, Schwarz’s grammar allows representations from the current context to be used in the description of the teacher’s behaviour, where the original perspective holder’s perspective is privileged in Keshet’s grammar.

Woods (2016: 163), a first language English speaker, notes that she agrees with a Keshet-type interpretation rather than a Schwarz-type judgement. Noting that Keshet is also a first language English speaker, whereas Schwarz is a first language German speaker, she conducted an informal survey of 5 English and 5 German and Swedish speakers on contexts and examples like (81), which revealed that the English speakers only accepted (81)a while the German and Swedish speakers accepted both.

While requiring further investigation, this indicates that speakers of these languages may have acquired fundamentally different ways of interpreting perspective under attitude reports, and that these interpretations are brought to the fore in the interpretation of embedded root constructions. I will now turn to these constructions to tease apart in more details how they are interpreted.

¹³ For Keshet’s approach, see e.g. Keshet (2011).

5.1. What shifts in English?

5.1.1. Rules, not operators

The proposal here does not suggest that the interpretation of EIs are achieved via syntactic ‘monster’ operators (cf. Kaplan 1989) but rather to learned pragmatic rules. This is a departure from Woods (2016, 2020), where a perspectival monster operator was part of a complex with the situation pronoun in the specifier of the IAP and drove the shift of perspective. I abandon that idea here because elements of root behaviour can occur in non-embedded root contexts that show no signs of having the extra structure postulated here, for example shifting in Swedish V-in-situ (see example (66)). Moreover, perspective holders need not be identified with the matrix subject, meaning that perspective holders may be contextually and not merely syntactically defined (82) and speakers can reject the proposition ((82)b and (82)c, also (86)a further below):

(82) Embedded root clauses that flout typical shifting behaviour

- a. jag har fått höra både det ena o andra [att jag har inte uppfostrat honom på rätt sätt o inte satt gränser], men det har jag.
“I’ve heard both this and that that I haven’t raised him right and haven’t set boundaries, but I have.”
Swedish (Djärv 2022 ex.17b)
- b. He says will he hell go to the party, but I know he can’t resist the drama really.
British English (constructed)
- c. Hans glaubt nicht, Peter hat gewonnen, #(er glaubt nur, dass Peter gut abgeschnitten hat)
done has
‘Hans does not believe that Peter has won, he only believes that Peter has done well.’
German, Truckenbrodt 2006: 296

Examples like (82)a also flag another aspect of meaning which key to embedded root clauses – that they conventionally implicate that a speech act with the content in the embedded root clause actually occurred in the relevant discourse context. While this is further expressed in the lexical meaning of many of the matrix predicates compatible with embedded root clauses, this very subtle distinction can be illustrated by clauses appearing under *verba non dicendi* like *wonder* and *not know*:

(83) British English (Woods 2020: 301)

- a. Everyone wanted to know: ‘Is Joe coming to the party?’
implicature: the question about Joe’s attendance was actually asked
- b. Everyone wanted to know whether Joe could come to the party.
no implicature: the question about Joe’s attendance was actually asked
- c. Everyone wanted to know could Joe come to the party
implicature: Joe’s attendance was overtly discussed in some form

Woods (2020) demonstrates that the implicature (that a speech act with the propositional content of the EI was made) is conventional on the following grounds:

(84) Woods (2020: 313)

- a. Conventionality and detachability: EIs are always an alternative to typical embedded interrogatives (cf. also de Villiers et al. 2011; Stringer 2015) and, in the absence of subject-auxiliary inversion, the implicature disappears (cf. [(83)b vs. (83)c], [(85)] below).

- b. Non-cancellability: the implicature cannot be denied by the speaker (see [(85)] below).
- c. Non-backgrounding: the information that a speech act was made addressing such [propositional content] is a new piece of information conveyed by the current speaker (the hearer need not already know that a relevant previous speech act was made).
- d. Projection through negation and interrogation: these operators do not affect the implicature that some speech act was performed (see [(86)] below), though the exact content may be queried.
- e. Independence of at-issue meaning: EIs do not impose new or additional discourse requirements.
- f. Speaker-oriented: in the sense that the speaker is choosing to and takes responsibility for expressing the implicature that the relevant speech act was made.

(85) British English (Woods 2020: 313)

- a. I wanted to know if Joe was coming to the party but didn't mention it at all.
- b. I wanted to know was Joe coming to the party #but didn't mention it at all.

(86) British English (Woods 2020: 313)

- a. I didn't ask would he cook tea for me #(, I asked would he cook lunch).
- b. Did Jane ask was Mary coming? ≠ something was asked

In order to capture the pragmatic rules of using embedded root clauses, then, both the shifting rules of each language and the fact of their conventional implicatures must be captured.

Turning back to language-specific shifting patterns, I contend that on the basis of their input in context – of which EIs are potentially a key part – English-acquiring children learn that both speaker and addressee perspectives can shift under attitude predicates, and that if a shift occurs, all parameters shift together. Key to their acquisition of these rules are examples that flout or explicitly illustrate these rules (equivalent to the examples in (82)), with reinforcement from real-life contextualised examples like (81) where misunderstandings occur.

5.1.2. Formalising the rules

I must now formalise what children learn that EIs (and other embedded root clauses in English) contribute in comparison with typical embedded interrogatives in English. To do this I will use Farkas and Bruce's (2010) Table model, updated by Farkas (2022), which I now outline briefly.

The model is built on four principal components required for conversation: a Table on which issues are placed to be resolved, the discourse commitments of the speaker (DC_{Sp}) and the addressee (DC_{Ad}) and the projected set of canonical responses to issues on the Table. The discourse commitments are fairly straightforward and map to the interlocutors' public (and it is assumed private) commitments in the discourse context.

Starting then with the Table, an issue placed on it takes a specific syntactic form and expresses some proposition(s). It can be resolved if it can be accepted into the interlocutors' shared commitments in that context, otherwise known as the common ground (Stalnaker 1978). If issues remain on the Table, the conversation is considered "unstable".

The form in which the issue is expressed determines its conventional discourse effects, which is to say how it is expected to be interpreted and responded to by an addressee. These conventional

discourse effects shape the projected set, which is a set of preferred next discourse moves (or commitments) that the speaker expects the addressee to make. These moves typically are a step towards folding the (one of the) propositions on the Table into the common ground of the discourse participants, with the aim that future common grounds are always more informative than the one that precedes them.

To demonstrate for a root declarative utterance like *Mary likes Sam*, the speaker commits to an issue consisting of a single proposition (p) and places that on the Table for the addressee to respond to. Furthermore, they project that the addressee's next discourse move will be to commit to p too (on the basis that canonically, when uttering a declarative clause, the speaker expects the addressee to take the proposition it contains to be true). This is demonstrated in Figure 1.

DC_{Sp}	Table	DC_{Ad}
P	$\langle \text{'Mary likes Sam'}[DECL]; p \rangle$	
Projected set: $\{DC_{Ad} \cup \{p\}\}$		

Figure 1: Conversational state after utterance of a declarative with the propositional content "Mary likes Sam".

Should the addressee act canonically and commit to p , it will be in both interlocutors' discourse commitments, which is reducible (in this context) to it being in the shared common ground. The proposition can then be removed for the table and the issue is considered to be resolved.

Interrogative utterances (for ease here I limit myself to polar interrogatives) consist of the speaker commits to an issue consisting of a set of propositions, meaning that they commit to one of the propositions in the set being true in the relevant context. They add that set to the Table to be resolved, which is canonically achieved by the addressee committing either to the truth of the positive or the negative proposition. This is visualised in Figure 2:

DC_{Sp}	Table	DC_{Ad}
$\{p, \neg p\}$	$\langle \text{'Mary likes Sam'}[Q]; p \rangle$	
Projected set: $\{DC_{Ad} \cup \{p\}, DC_{Ad} \cup \{\neg p\}\}$		

Figure 2: Conversational state after utterance of the interrogative clause "Does Mary like Sam?"

This is a necessarily brief outline of the Table model that omits some finer formal details, for which the reader is directed to Farkas (2022). In its brief form or not, this technology is particularly useful for my aims here because it focuses on how to relate syntactic forms and conventional discourse effects. I will now go on to show how it can help us understand, with a little expansion, how the discourse effects of Ells, comp-V2, embedded interrogatives and their non-root counterparts play out.

5.1.3. Ells and non-root embedded interrogatives

To deal with non-root embedded interrogatives I need to add to the model by including prosody in the form of the utterance, as prosody crucially affects the interpretation of interrogatives (and canonical responses to them) in both matrix (e.g. Farkas and Roelofsen 2017) and embedded cases (Schafer et al 2000, McCloskey 2006, Dayal 2023).

I will focus on final contours, marking them with \searrow for a final fall and \nearrow for a final rise. This is necessary because we need to capture the contexts in which it is perfectly canonical to respond to an interrogative embedded under a declarative with an answer to the embedded clause – indeed in some contexts it's pedantic not to do so. That said, to ask a question using an embedded imperative is still a marked *form* relative to a matrix question as the addressee must recognise that there is also a matrix proposition that is plausibly at issue.

Let's start by modelling an embedded interrogative with a final fall as in (87); a case in which, I argue, the embedded interrogative is not expected to elicit a response.¹⁴

- (87) *Context: Sam is back from university for the holidays. An old friend that he doesn't want to see, Mary, has been asking his sister Taylor when he'll be back. Taylor reports the conversation to her friend Jay, who knows all the backstory, saying:*
 Taylor: Mary asked if Sam was home↘.

The utterance in (87) results in the conversational state modelled as follows:¹⁵

DC _{Sp}	Table	DC _{Ad}
p	<'Mary asked if Sam was home'[DECL]; p; ↘>	
Projected set: DC_{Ad} U {p}		

Figure 3: Conversational state after utterance of "Mary asked if Sam was home" with final falling contour

In (87)/Figure 3, the speaker places a single proposition on the table for discussion, the complex proposition p *Mary asked if Sam was home*, and the falling tone reinforces the response expected by the speaker to their syntactic/prosodic choices – that the addressee will accept as true that proposition and add it to their own discourse commitments. As a corollary of the syntactic and prosodic choices made, the speaker does not raise the issue of whether Sam is home, and the addressee is not expected to take a stance on it either.

Let's now model a string-identical embedded interrogative in a different context with a final rise, below in (88):

- (88) *Context: Sam is back from university for the holidays. An old friend, Mary is throwing a party and wants to invite him, so she has been asking his sister Taylor when he'll be back. Taylor hasn't spoken to Sam lately but knows that their mutual friend Jay will be up to date. Taylor wants to help Mary out so says to Jay:*
 Taylor: Mary asked if Sam was home↗.

DC _{Sp}	Table	DC _{Ad}
p, {q, ¬q}	<'Mary asked if Sam was home'[DECL]; p; <'Sam was home'[Q]; q> ↗>	
Projected set: {DC_{Ad} U {p ∧ q}, DC_{Ad} U {p ∧ ¬q}}		

Figure 4: Conversational state after utterance of "Mary asked if Sam was home" with final rising contour

In (88)/Figure 4, two sets of propositions are placed on the Table and the resulting projected set is more complex, with two canonical responses that the addressee is expected to choose from; they will either choose to accept the matrix proposition and confirm that the embedded proposition holds, or accept the matrix proposition but reject the embedded proposition.

Evidence for this analysis is as follows: firstly, in this context, an overt response to the matrix proposition alone, e.g. *I know she did*, is considered infelicitous in the sense that it is interpreted as

¹⁴ I am aware of work happening in parallel on the conventional discourse effects of embedded clauses by Kajsa Djärv and Donka Farkas, but at the time of writing I don't believe that that work has been shared in any public forum, nor has it been shared with me, though I eagerly await it! As such, similarities (and differences) in our analyses at this stage are purely coincidental in the truest sense.

¹⁵ This model was proposed in Woods (2016: 189); the models that follow are inspired by that work but represent an updated and more accurate version.

pedantic. Relatedly, bare *yes*, *of course* or *mhm* answers of acceptance are not appropriate to (88) and must indicate that they target the embedded utterance (see 0).

- (89) Taylor: So we're organising this party, and Mary asked if Sam was home↗.
- Jay: #Yes.
 - Jay': #Yes, I heard (that she asked...)
 - Jay'': Yes, he is.
 - Jay''': Of course! (= Of course she did...; ≠ Of course he is)
 - Jay''': Of course he is.
 - Jay''': ?Is that right? (= that she asked...)

Note that (88)a, (88)b, (88)f are all acceptable in response to (87), but (88)c would fall oddly on first-language speakers' ears. This is because typical embedded interrogatives with final falls do not mark the addressee of the embedded interrogative, so plausibly, the question could be live for either the original or current addressee, though the *canonical* case is that it is live for the original addressee only. In contrast, the final rise on (88) marks the current addressee as being responsible for settling the issue in the embedded interrogative.

Let's now turn to EIs. EIs require one further addition to the Table model, namely the indexing of propositions for context. As demonstrated empirically in section 2.1.2 and discussed in section 4.4, EIs shift perspective to the original discourse context, with the illusion of not shifting resulting from identity between the original and current context. To capture this, I represent here the parameter settings on the situation pronoun located in the IAP as indexes (0 for the discourse context, 1 for some other relevant discourse context). This is analogous to the representation of the settings of the CP as {Q, DECL, IMP} and the setting of the SAP as a final intonation contour.

(90) illustrates an EI used in its most canonical form as a report of an act in a previous discourse:

- (90) *Context: Jay has heard that people have been speculating about Sam's whereabouts and knows that Taylor has been party to some of the discussions. They ask Taylor about this and Taylor replies:*
Mary wanted to know was Sam home.

DC _{Sp0}	Table	DC _{Ad0}
P Sp/PH ₁ overtly raised an issue related to q in w ₁ (=π)	<<'Mary wanted to know was Sam home'[DECL]; p> ₀ <'Sam was home'[Q]; q> ₁ ↘> ₀	
Projected set: {DC _{Ad0} U {π ∧ p ∧ {DC _{Ad1} U {q, ¬q}}}}		

Figure 5: Conversational state after the utterance "Mary wanted to know was Sam home" with final falling contour

Figure 5 demonstrates that the current speaker expresses as not-at-issue content the fact that a speaker or perspective holder (PH) in the relevant previous discourse, here identified as Mary, raised some issue in that discourse (π). The locution "related to q" is intentionally weak; Mary may have raised the exact issue of whether Sam is home (q), or a higher-level question that could be answered, in part or in whole, by the answer to q, e.g. *Who is home?* The reasons why a weaker characterisation of the issue is necessarily will become clear shortly.

The current speaker also expresses as at-issue content the fact that Mary wanted to know whether Sam was home (p). As such, predicate negation in proposition p (with narrow scope) is not acceptable, because the fact that Mary raised an issue in the original context can't be denied – a contradiction with the not-at-issue content would result.

(91) British English (constructed; see Woods 2016: 121)

- a. Mary wanted to know was Sam home #but never actually asked anyone about it.
- b. A: Mary wanted to know was Sam home.
B: #No she didn't, she never said a thing.

However, the *content* of the act can be rejected, as well as *how* it was expressed:

(92) British English (constructed)

- A. Mary wanted to know was Sam home.
- B. No, she asked was *Robin* home.

(93) British English (adapted from Woods 2016: 89)

- A. Mary wanted to know was Sam home.
- B. But she didn't ask it like that!
- A. True, she actually asked was that bore home.

As such, the proposition π bypasses the table and passes straight into the addressee's discourse commitments, while proposition p is placed on the table but is expected to be accepted by the addressee into their discourse commitments.

With respect to the embedded clause, its form and its indexing require it to be placed separately on the table because it is marked in these ways relative to the non-root embedded clause and must have an impact on canonical discourse effects. It is true that the not-at-issue assertion of π is one such effect, but the creation of a set of propositions q by the inversion in the embedded clause also creates expectations on the part of some relevant speaker. That speaker is marked as the speaker in the original discourse, and the expected addressee as the original addressee¹⁶, due to the rules already discussed for English about how contexts may shift under attitude predicates. Therefore, the current addressee can only add to their discourse commitments that q is at issue for the addressee in the original discourse (Ad_1) – it would not be canonical for the current addressee to respond to it directly. In terms of open issues being added to discourse commitments, see Farkas (2022) for a Romanian particle *oare* that does just this, and Woods and Haegeman (in press) for a West Flemish discourse marker, *kwestje*, which has a similar effect of informing an addressee that a question is open but not for them to solve.

There is an implication here that if the speaker and addressee in the current context are identified with the speaker and addressee in the original context, then it should be fine to respond directly to an EII. This falls out, with a little help from intonation (a final rise) and an extended pause after the EII:

- (94) A: I was asking Mary was Sam home already...?
- B: Yes, he got back last week.

Note however that example (90) in the context given fails to get this meaning, even with rising intonation. This is because there is no way of identifying the original speaker/addressee with the current ones:

¹⁶ There may be some occasions where the addressee in the matrix context was not an optimal addressee for a question – for example if they weren't expected to know the answer, but were expected to know how to find out. See (95)/**Error! Reference source not found.** for such a case. For simplicity's sake I will still refer to the "addressee" in the original context as that knowledge holder is in some sense being indirectly accessed in the original context, but this could use further reflection and research.

DC _{Sp0} (Taylor)	Table	DC _{Ad0} (Jay)
p Mary overtly raised an issue in w ₁ (=π)	<<'Mary wanted to know was Sam home'[DECL]; p> ₀ <'Sam was home'[Q]; q> ₁ ↗ ₀	
Projected set: None - DC _{Ad0} can't access a set of propositions from which to provide a true answer		

Figure 6: Conversational state after uttering "Mary wanted to know was Sam home" with final rising contour, without authority to speak on behalf of Mary

If I adjust the context in which the string in (90) is uttered, as in (95), we have more luck, however.

(95) Context: Taylor is Mary's secretary and is tasked with finding out whether Sam is back from university to be able to come to Mary's party. Taylor knows that Jay will know Sam's whereabouts, and also knows Taylor's relationship to Mary. Taylor says to Jay:
Mary wanted to know was Sam home?

In (95), the current speaker has the authority/duty to speak on behalf of Mary and can reasonably be identified with her, at least in terms of her intentions relative to this issue. Resolving the issue of identity of the addressee is a little harder, but could arguably be done if Mary expects Taylor to ask Jay, making Jay an indirect addressee (perhaps more accurately, source of information) in the original context.

DC _{Sp0} (Taylor for Mary)	Table	DC _{Ad0} (Jay)
P Mary overtly raised an issue in w ₁ (=π)	<<'Mary wanted to know was Sam home'[DECL]; p> ₀ <'Sam was home'[Q]; q> ₁ ↗ ₀	
Projected set: {DC _{Ad0} U {π ∧ p ∧ {DC _{Ad1} U {q, ¬q}}}} : {{DC _{Ad0} U {π ∧ p ∧ q}}, {DC _{Ad0} U {π ∧ p ∧ ¬q}}}		

Figure 7: Conversational state after utterance of "I want to know was Sam home" with final rising contour

As this requires some complex pragmatic reasoning, it may not be surprising that many speakers of EII dialects (including myself) would likely prefer a kind of direct quotation approach here, as in (96), indicated by the lack of sequence of tense:

(96) Mary wanted to know is Sam home?

Moreover, the projected set in Figure 7 is ultimately very similar to that of a typical embedded interrogative with rising tone (see (88), Figure 4) with the addition only of π, which in this context is fully redundant because it's not only communicated overtly in the matrix clause (p) but is also embodied in this context – literally, it is what is happening at the time of the utterance.

A related but more natural example can be seen in (97), where the original and current discourses are the same but the matrix clause is also interrogative:

(97) Context: Taylor is planning a party next week but isn't sure if Sam is still away at university.
Taylor asks Jay:
Do you know is Sam home?

DC _{Sp0}	Table	DC _{Ad0}
{p, ¬p}	<<'You know is Sam home'[Q]; p> ₀	

Sp/PH ₁ overtly raised an issue with content q in w ₁ (=π)	<'Sam is home'[Q]; q> ₁ ^> ₀	
Projected set: {{DC _{Ad0} U {π ∧ p ∧ {DC _{Ad1} U {q, -q}}}, {DC _{Ad0} U {π ∧ -p ∧ {DC _{Ad1} U {q, -q}}}} : {{DC _{Ad0} U {π ∧ p ∧ q}}, {DC _{Ad0} U {π ∧ p ∧ -q}}, {DC _{Ad0} U {π ∧ -p ∧ {q, -q}}}}		

Figure 8: Conversational state after utterance of "Do you know is Sam home?"

As you can see in Figure 8, the effect of uttering (97) is different from the effect of uttering (90) because the matrix proposition p is also at issue. Note that in the relativised projected set (the second line in the projected set in Figure 8) that it is not possible for the speaker to potentially commit to -p (I don't know) and either q (Sam is home) or -q (Sam is not home) severally. Though these options look as if they should be logically possible, the fact that the speaker cannot know {q, -q} while also committing to not knowing whether they know {q, -q} rules this option out.

In summary, the conventional response to an EII in English is to accept that an issue was raised with the content of the embedded clause, by contextually-specified actors (π). That the issue was raised by those actors (p) will be new information for the addressee of the EII, as will the information that it was an open issue for them (i.e. was not yet resolved in that context; DC_{Ad1} U {q, -q}).

An EII may be deployed in the current context by the speaker to elicit a response from the addressee, but this is a marked use of the EII due to the redundancy arising (a) from the similarity to the conventional effect of a typical embedded clause with a final rising contour and (b) from expressing as non-at-issue content the fact of the act, through the act itself. This situation improves if the EII is couched within a question, as the first type of redundancy no longer obtains.

A prediction arises here that EIIs are less likely than typical embedded interrogatives to be interpreted as indirect questions; this question can be investigated through corpora and experimental work requiring more space than is left in this paper.

5.2. What shifts in German?

5.2.1. Comp-EV2

Turning now to comp-EV2 in German, I assume that the typical canonical interpretation of an embedded *dass*-clause is as in (98)/Figure 9.

(98) Context: Taylor and Jay are chatting about their friends Maria and Peter. They haven't heard directly from Peter, but Taylor has been in contact with Maria, who has seen him recently.

She tells Jay:

Maria glaubt, dass Peter glücklich ist.

DC _{Sp}	Table	DC _{Ad}
p	<'Maria glaubt, dass Peter glücklich ist'[DECL]; p>	
Projected set: {DC _{Ad} U {p}}		

Figure 9: Conversational state after utterance of "Maria glaubt, dass Peter glücklich ist."

(98)/Figure 9 mirrors the case of an English embedded clause as in (87)/Figure 3. Let's now take a comp-EV2 clause in the same context:

(99) Context: Taylor and Jay are chatting about their friends Maria and Peter. They haven't heard directly from Peter, but Taylor has been in contact with Maria, who has seen him recently.

She tells Jay:

Maria glaubt, Peter ist glücklich.

DC _{Sp0}	Table	DC _{Ad0}
p ₀ Sp ₁ overtly raised an issue with content q in w ₁	<<'Maria glaubt, Peter ist glücklich'[DECL]; p> ₀ <'Peter ist glücklich'[D]; q><Sp/PH1,Ad0> ↘> ₀	
Projected set: {DC _{Ad0} U {π ∧ p ∧ q}}		

Figure 10: Conversational state after utterance of "Maria glaubt, Peter ist glücklich."

(99)/Figure 10 differs from an English EII because, as discussed earlier, the addressee is fixed to the current addressee for all information on the Table and only the speaker/perspective holder parameter can shift. This can plausibly be identified as the current speaker, but the conventional discourse effects modelled here are that the addressee has 2 propositions to address: one is asserted at issue by the speaker, namely p, and one is asserted by the speaker as not-at-issue content, namely π. The embedded proposition q is placed on the Table but not asserted by the speaker as it is interpreted relative to the original speaker/perspective holder. This comes as a result of the marked form that the speaker has chosen to use to report the proposition, though as this is purely a conventional discourse effect, it can be overridden by context. I suggest that this is easier in the case of EIIs because assertions are generally typically more strongly linked to speakers than questions are (cf. the wide range of non-canonical questions cross-linguistically), but this idea requires further consideration.

5.2.2. Embedded imperatives

Let's turn now to embedded imperatives. For the purposes of this paper I will assume that imperatives add to the Projected Set the proposition that the addressee should enact the content of the imperative, expressed here for an imperative with content m as DC_{Ad0} U {Ad₀ □ m}. Whether this is the most accurate way to represent an imperative in the Table model I leave for further research.

Assuming the above, a root imperative enters the discourse as follows:

- (100) *Context: Taylor and Jay are talking about train timetables. Jay needs to get to central London for 11am and is considering leaving Newcastle at 8am. Taylor says: Leave earlier.*

DC _{Sp}	Table	DC _{Ad}
m	<'PRO leave earlier'[IMP];m↘>	
Projected set: {DC _{Ad0} U {Ad □ m}}		

Figure 11: Conversational state after utterance of the root imperative "Leave earlier."

When embedded in English, the imperative will be indexed as follows:

- (101) *Context: Jay needed to get to central London for 11am and was considering leaving Newcastle at 8am. Mary has considerable experience of the route and had been talking to Taylor about Jay's plans. Jay ends up delayed and missing their meeting. Taylor is talking to Sam about Jay's nightmare travel experience. Mary said leave earlier.*

DC _{Sp0}	Table	DC _{Ad0}
p	<<'Mary said leave earlier'[DECL],p> ₀ <'PRO leave earlier'[IMP];m> ₁	

Sp ₁ overtly raised with Ad ₁ an issue with content q in w ₁ (=π)	$\searrow_{>_0}$	
Projected set: {DC _{Ad0} U {π ∧ p ∧ DC _{Ad1} U {Ad ₁ □ m}}}		

Figure 12: Conversational state after utterance of "Mary said leave earlier."

Again, if the context is such that the context parameters of perspective holder and addressee are the same in the current and original discourse contexts, then embedded imperatives like (101) can be interpreted as live in the current discourse, but not otherwise.

With respect to German, speakers have learned through years of contextually-situated experience of embedding under attitude predicates that addressee parameters do not shift, though perspective holder parameters can. Therefore, an embedded imperative like (102) has the conventional discourse effect shown in Figure 13.

- (102) German (Kaufmann 2015: 8)
Context: Context: On Monday, Magda tells Michael "Claudia should leave at 5, not 7." ON Tuesday, Michael tells Claudia, who intends to book the train at 7:
Magda hat gesagt fahr schon früher
Magda has said leave.IMP already earlier
"Magda said leave earlier."

DC _{Sp0}	Table	DC _{Ad0}
p ₀ Sp ₁ overtly raised with Ad ₁ an issue with content q in w ₁ (=π)	<<'Magda hat gesagt fahr schon früher'[DECL],p> ₀ <'PRO fahr schon fruher'[IMP];m> _{<Sp1,Ad0>} $\searrow_{>_0}$	
Projected set: {DC _{Ad0} U {π ∧ p ∧ {Ad ₀ □ m}}}		

Figure 13: Conversational state after utterance of "Magda hat gesagt fahr schon früher."

The effect of using an embedded imperative is that the command (or order, or offer) holds of the addressee in the current context, coercing the addressee more strongly to enact its content than an embedded modalised predicate (by way of an alternative construction).

The fact that it expresses a kind of "double command" relative to the addressee due to the not-at-issue proposition π could be expected to lead to redundancy and reduced acceptability in German, but the same problem would not typically hold in English. This could be the source of differences between German and English in terms of the wider acceptability of embedded imperatives in spoken English (compared with the greater individual variation we see in German).

The analysis here might also predict that we find embedded imperatives more frequently in English, and that they are judged more grammatical, because they are more flexible in terms of the contexts in which they occur. The addressee restriction in German means that embedded imperatives are restricted to contexts where imperatives are both reported and "current" at the same time, requiring very specific conversational and contextual set-ups. A first route for investigating this would be to run a corpus analysis of speech in each language, comparing occurrences of root and non-root imperatives in terms of frequency and context of use.

5.3. The interrogative gap

The work laid out above helps us understand the final step in the embedded root clause paradigm that we saw in Table 1, namely why only English has embedded interrogatives. As interrogatives typically require shift towards the addressee (cf. interrogative flip, e.g. Garrett 2001), the fact that

the addressee does not shift in German embedded contexts could form the basis for the lack of embedded interrogatives in German.

But if we interrogate it, this doesn't seem straightforwardly to explain the problem. The addressee might not shift but the perspective holder can, so why can't the perspective holder shift to the addressee? Identity between the perspective holder and another parameter in the context tuple can't itself be a problem, as the speaker is frequently the perspective holder.

However, if the perspective holder and the addressee share identity, then only a limited range of question types could be expressed in such a context, namely self-addressed questions. Plausibly, then, an embedded inverted interrogative such as (103) should be able to obtain in German:

- (103) German (constructed)
Ich frage mich, soll ich zur Party gehen?
I ask me, should I to.the party go.INF
"I ask myself, should I go to the Party?"

The issue here is that as the parameters in the two contexts will always be identical, such examples will always be string-identical (or near to) with direct quotation, and there will be very few contextually-situated examples to suggest otherwise, as contexts in which one might reflect overtly on one's own self-questions are rare. As such, then, there are vanishingly few contexts in which a German speaker might construct or hear embedded interrogatives that are not identifiable as direct quotation, and so a recognisably distinct class of embedded interrogatives does not emerge.

5.4. Situating English and German perspective shifting more broadly

This cross-linguistic variation in perspective shifting mirrors the variation available in indexical shifting as identified by Anand and Nevins (2006). Anand and Nevins note most importantly that mixed perspectives are not available in a single clause (i.e., all perspectival elements must shift together). This holds true in embedded root clause perspective shifting too, as we saw in (13), included again here as (104).

- (104) Yorkshire English (attested)
Context: Liz visited a town she used to live in and bumped into an old friend, who invited her to their house for coffee. She is reporting the encounter some weeks later.
They_j said oo, could we_i come over for coffee so we_i did [go over for coffee]

In (104), the discourse marker *oo*, roughly expressing pleasure or surprise, and the spatial orientation of the verb *come* both orient to the perspective of the old friend, who is the original asker of the question. In this case it is not possible for *oo* to express Liz, the current speaker's, pleasure or surprise, and from her current perspective, she would be more likely to express direction of travel using *go*, but this degrades the acceptability of this EII.

Variation also exists crosslinguistically as to *which* variables may shift in a given context. In their paper, Anand and Nevins identify two types of shift: one kind in which all parameters shift (exemplified by Zazaki (Indo-Iranian)) and one in which the "author" (the speaker or perspective holder) shifts, but no other parameters do (exemplified by Slave (Athabaskan)). Again, English and German perspective shifting map onto these types of indexical shifting. Rather excitingly, perspective shifting in Slave of the perspective-holder only type is optional, just as perspective shifting is in German. These similarities suggest that the shifting phenomena investigated here are not simply a cultural accidents or idiosyncrasies of Germanic.

5.5. Thoughts on Swedish

The analysis given here can also account for the interpretations of comp-V2 in Swedish as identified by Djärv (2022). She notes that Swedish comp-V2 can be interpreted as speaker assertion, as assertion on the part of a third party (the matrix subject or another contextually relevant perspective holder), or as a rising declarative.

The first two interpretations are accounted for straightforwardly because in the analysis above perspective shift of the speaker to an ‘original’ speaker or other relevant perspective holder is possible but not obligatory in comp-V2.

The rising declarative interpretation is available because such acts express that the speaker has some evidence for the propositional content, but they might consider this unreliable. As a result, they use rising intonation to indicate to the addressee that the issue is yet to be resolved. When Swedish comp-V2 is used to express a rising declarative, it appears, based on the examples and working in Djärv (2022), that the addressee of the rising declarative must be the current addressee, in line with the restrictions outlined above on the exclusion of the addressee in German perspective shifting.

Essentially, the claim here is that Swedish and German align closely in terms of which parameters may shift, but differ in whether or not such shifting is also available in V-in-situ clauses. I leave this for future work.

6. Syntax x Pragmatics = cross-linguistic distribution

In this paper I hope to have demonstrated that the distribution of embedded root clauses in English, German, Swedish and Dutch is determined by a complex interplay of syntactic clause linking mechanisms and pragmatic rules governing the interpretation of clauses embedded under attitude predicates. Let’s review these interactions here.

Starting with Swedish, the most restricted of the languages in that it only allows comp-V2, this appears to reduce to the fact that Swedish only permits true complementation of embedded clauses, root or not. This is demonstrated by the form of the embedded root clause (containing complementiser *att*), the lack of any type of rel-V2, and by the fact that characteristics that tend to differentiate comp-V2 and V-in-situ in other languages (e.g. presence of speech act material, extraction) are shared by Swedish comp-V2 and V-in-situ clauses.

Dutch dialects vary in that some do not appear to accept paratactic linking of V2 clauses while others do. More work is needed on the hypothesised “complementation-only” dialects of Dutch to see to what extent comp-V2 and V-in-situ are interpretively similar. With respect to dialects that allow paratactic linking, we might predict that some of these speakers will be more likely to accept embedded imperatives, and further empirical investigation of pragmatic constraints in these speakers will also help us understand why some do not allow embedded imperatives.

In German I demonstrated that embedded root clauses are paratactically linked at different positions in the matrix clause depending on the properties of the embedded clause. Rel-V2 clauses are attached at IAP level, do not exhibit perspective shifting and are more syntactically opaque than comp-V2 and embedded imperatives, both of which, I argue, are paratactically adjoined at DP, though embedded imperatives raise further to adjoin to IAP. The lack of EIs in German results from the pragmatic rules of the language which allow shifting of the perspective holder, but not of the addressee parameter (cf. Kaufmann and Poschmann 2013). As this restricts (a) the type of questions that might be embedded and (b) the ways in which such questions may differ from direct quotation,

German speakers do not generate or receive sufficient experience to justify differentiating a class of EIs from self-addressed direct quotation.

In English embedded root clauses may be adjoined paratactically at IAP (*fuck*-inversion relative clauses) and at DP (*fuck*-inversion 'complement' clauses, embedded imperatives and EIs). The full range of embedded root clause types is available because of the greater "shiftiness" of English – that is to say that all contextual parameters may shift under attitude predicates, and indeed *do* shift when the form of the embedded clause is marked. I predict that this has an effect on the shape of EIs that we see, namely that they tend to involve a third person matrix argument (that is, an "original" interlocutor who is not part of the current discourse) and that they tend to be used in reporting contexts rather than as indirect question forms. This remains to be examined through corpus and experimental study.

Empirically, additional future study is required on other Germanic languages and other so-called "partial" V2 languages, including those outwith Germanic that exhibit relevant properties like rel-V2, for example Estonian. On the theoretical side, much work remains to be done into the intricacies of modelling embedded clauses in general, but I hope the claims here provide a stimulating point of departure.

Abbreviations

Ad – addressee, BNC – British National Corpus, Comp-V2 – Verb second clause in complement position, DAT – dative, DC - discourse commitments, DECL – declarative clause typing feature, EI – embedded inverted interrogative, (E)V2 – (embedded) Verb second, IAP – Illocutionary Act Phrase, IMP – imperative clause-typing feature, PH - perspective holder, Q – interrogative clause typing feature, Rel-V2 – Verb second relative clause, SAP – Speech Act Phrase, Sp – speaker, SUBJ - subjunctive

Acknowledgements

Thanks once again to all of my consultants who so kindly provided judgements, examples and suggestions: Sjef Barbiers, Marcel den Dikken, Paula Fenger, Coppe van Urk, William van der Wurff, Jan-Wouter Zwart (Dutch), Hans-Martin Gärtner, Alex Göbel, Johannes Heim, Magdalena Kaufmann, André Meinunger (German) and Kajsa Djärv (Swedish). Special thanks to Hans-Martin Gärtner for recommending a wide range of literature to me, to Kajsa Djärv for lots of discussion along the way, to Edgar Onea for some thought-provoking comments and to André Meinunger and Manfred Krifka for early discussions on this paper during my stay as a visiting researcher at Leibniz-ZAS Berlin. Thanks also to Manfred for facilitating and supporting my time in Berlin, and to Leibniz-ZAS and the Newcastle University Returners' Support Fund for funding my stay.

For the purpose of open access, the author has applied a Creative Commons Attribution (CC BY) licence to any Author Accepted Manuscript version arising from this submission.

References

- Antomo, Mailin. 2012. Interpreting embedded verb second: causal modifiers in German, *ConSOLE XVII: Proceedings of the 17th Conference of the Student Organisation of Linguistics in Europe (University of Nova Gorica, 16-18 January 2009)*, 27–51
- Banfield, Ann. 1982. *Unspeakable Sentences: Narration and Representation in the Language of Fiction*. London, Boston, MA: Routledge and Kegan Paul

- Ceong, Hailey Hyekyeong. 2019. The morphosyntax of clause typing: single, double, periphrastic, and multifunctional complementizers in Korean. Doctoral dissertation: University of Victoria
- Ceong, Hyekyeong Hailey. 2017. *First-and second-hand speech contrasts as a syntactic domain: The grounding spine*. Paper presented at Workshop at the 12th biannual meeting of the Association of Typology at the Australian National University in Canberra, 15th December 2017
- Chomsky, Noam. 1986. *Barriers*. Cambridge, MA: MIT Press
- Cinque, Guglielmo. 1999. *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Oxford: Oxford University Press
- Coniglio, Marco and Iulia Zegrean. 2012. Splitting up force: Evidence from discourse particles. In Lobke Aelbrecht, Liliane Haegeman & Rachel Nye (eds), *Main Clause Phenomena: New Horizons* (pp.229-256). Amsterdam: John Benjamins
- Cook, Clare Elizabeth. 2008. *The syntax and semantics of clause-typing in Plains Cree*. Doctoral dissertation, University of British Columbia
- Cook, Clare. 2014. *The Clause-Typing System of Plains Cree*. Oxford: Oxford University Press
- Crnič, Luka and Tue Trinh. 2009. Embedding Imperatives in English. *Proceedings of Sinn und Bedeutung* 13, 113-127
- Dayal, Veneeta. 2023. The interrogative left periphery: How a clause becomes a question. *Linguistic Inquiry Online First*. URL for ms. used: <https://bpb-us-w2.wpmucdn.com/campuspress.yale.edu/dist/6/2964/files/2023/03/The-interrogative-left-periphery-Dayal-2-28-23.pdf> [accessed 29 Sep 2023]
- de Villiers, Jill, Peter de Villiers and Tom Roeper. 2011. Wh-questions: Moving beyond the first phase, *Lingua* 121, 352–366
- den Dikken, Marcel. 2005. A comment on the topic of topic-comment. *Lingua* 115, 691-710
- Djärv, Kajsa. 2019. *Factive and assertive attitude reports*. Doctoral dissertation, University of Pennsylvania
- Djärv, Kajsa. 2022. On the interpretation and distribution of embedded main clause syntax: new perspectives on complex discourse moves. *Glossa: A journal of general linguistics* 7. DOI: <https://doi.org/10.16995/glossa.5752>
- Farkas, Donka F. 2022. Non-intrusive questions as a special type of non-canonical questions. *Journal of Semantics Advance Access Publication*, 1-43. DOI: <https://doi.org/10.1093/jos/ffac001>
- Farkas, Donka F and Kim B. Bruce. 2010. On reacting to assertions and polar questions. *Journal of Semantics* 27: 81-118. DOI: <https://doi.org/10.1093/jos/ffp010>
- Filppula, Markku. 1999. *The grammar of Irish English: language in Hibernian style*. London: Routledge.
- Freywald, Ulrike. 2018. *Parataktische Konjunktionen. Zur Syntax und Pragmatik der Satzverknüpfung im Deutschen – am Beispiel von obwohl, wobei, während und wogegen. (Studien zur deutschen Grammatik 90)*. Tübingen: Staffenburg
- Garrett, Edward. 2001. *Evidentiality and Assertion in Tibetan*, PhD dissertation, University of California, Los Angeles.
- Gärtner, Hans-Martin. 2001. Are there V2 relative clauses in German? *Journal of Comparative Germanic Linguistics* 3, 97-141
- Green, Lisa. 2002. *African American English: a Linguistic Introduction*. Cambridge: Cambridge University Press
- Haegeman, Liliane & Virginia Hill. 2013. The syntacticization of discourse. In Raffaella Folli, Christina Sevdali and Robert Truswell (eds). *Syntax and its Limits*. Oxford: Oxford University Press
- Hill, Virginia. 2007a. Romanian adverbs and the pragmatic field, *The Linguistic Review* 24, 61–86.
- Hill, Virginia. 2007b. Vocatives and the pragmatics–syntax interface. *Lingua* 117, 2077–105.

- Hill, Virginia. 2014. *Vocatives: How syntax meets with pragmatics*. Leiden: Brill.
- Holmberg, Anders and Christer Platzack. 1995. *The Role of Inflection in Scandinavian Syntax*. Oxford: Oxford University Press.
- Horn, Laurence R. 1985. Metalinguistic Negation and Pragmatic Ambiguity, *Language* 61(1), 121-174
- Iatridou, Sabine & Anthony Kroch. 1992. The licensing of CP-recursion and its relevance to the Germanic verb-second phenomenon, *Working Papers in Scandinavian Syntax*, 1–24.
- Julien, Marit. 2015. The force of V2 revisited, *Journal of Comparative German Linguistics* 18, 139–181.
- Kaplan, David. 1989. Demonstratives. In J. Almog, J. Perry & S. Weinstein, eds, *Themes from Kaplan*. Oxford: Oxford University Press
- Kaufmann, Magdalena. 2012. *Interpreting imperatives*. Dordrecht: Springer
- Kaufmann, Magdalena and Claudia Poschmann. 2013. Embedded imperatives: Empirical evidence from Colloquial German. *Language* 89(3), 619-637. Stable URL: <https://www.jstor.org/stable/24671940>
- Kaufmann, Magdalena. 2015. *Embedded imperatives across languages: too rare to expect, too frequent to ban*. Handout from Colloquium talk at UMass Amherst, April 21 2015
- Keshet, Ezra. 2011. Split intensionality: A new scope theory of de re and de dicto. *Linguistics and Philosophy*. DOI: <https://doi.org/10.1007/s10988-011-9081-x>.
- Krifka, Manfred. 2014. Embedding illocutionary acts. In Tom Roeper and Margaret Speas (eds), *Recursion: Complexity in Cognition* (pp.59-88). Heidelberg: Springer
- Krifka, Manfred. 2023. Layers of assertive clauses: Propositions, judgements, commitments, acts. In Jutta M. Hartmann and Angelika Wollstein (eds), *Propositionale Argumente im Sprachvergleich: Theorie und Empirie [Propositional arguments in cross-linguistic research: Theoretical and empirical issues]* (pp. 115-182). Tübingen: Narr
- Lam, Zoe. 2014. A complex ForceP for speaker- and addressee-oriented particles in Cantonese, *Studies in Chinese Linguistics* 35(2), 61–80
- McCloskey, James. 2006. Questions and question in a local English. In Raffaella Zanuttini, Héctor Campos, Elena Herburger, and Paul Portner (eds), *Crosslinguistic Research in Syntax and Semantics: Negation, Tense, and Clausal Architecture* (pp. 87-126). Washington DC: Georgetown University Press
- Meinunger, André. 2006. The discourse status of subordinate sentences and some implications for syntax and pragmatics. In Valeria Molnár & Susanne Winkler (eds), *The Architecture of Focus* (pp. 459-487). Berlin: Mouton de Gruyter
- Müller, Gereon. 2003. Local vs. Global Optimization in Syntax: A Case Study. In Jennifer Spenader et al (eds), *Proceedings of the Workshop on Variation within Optimality Theory* (pp.82-91). Stockholm: Stockholm University Department of Linguistics
- Müller, Gereon. 2010. Movement from Verb-Second clauses revisited. In Gisbert Fanselow and Thomas Hanke (eds), *Language and Logos: Studies in theoretical and computational linguistics* (pp. 97-128). Berlin: Akademie Verlag
- Platzack, Christer. 1986. COMP, INFL, and Germanic Word Order. In Lars Hellan and Kirsti Koch Christensen (eds), *Topics in Scandinavian Syntax*. Dordrecht: Reidel, 185–234.
- Potts, Christopher. 2005. *The Logic of Conventional Implicatures*. Oxford: Oxford University Press
- Reis, Marga. 1995. Extractions from verb-second clauses in German? In Uli Lutz and Jürgen Pafel, eds. *On extraction and extraposition in German. Linguistik Aktuell vol. 11* (pp. 45-88). Amsterdam: John Benjamins.
- Reis, Marga. 1997. Zum Syntaktischen Status unselbständiger Verbzweit-Sätze. In C. Dürscheid, K. H. Ramers & M. Schwarz (eds), *Sprache im Fokus. Festschrift für Heinz Vater zum 65. Geburtstag* (pp. 121–144). Tübingen: Niemeyer

- Reis, Marga. 2016. Consecutive so...V2-clauses in German. In Ingo Reich and Augustin Speyer (eds), *Linguistische Berichte, Sonderheft 21* (pp.285-318). Hamburg: Buske
- Reis, Marga. 2021. On so-called “embedded imperatives” in Modern German. In Markus Steinbach, Günther Grewendorf and Arnim von Stechow (eds), *Linguistische Berichte Heft 266* (pp. 163-208). Hamburg: Buske
- Sailor, Craig. 2020. Rethinking ‘residual’ verb second. In Rebecca Woods and Sam Wolfe (eds), *Rethinking Verb Second* (pp.126-149). Oxford: Oxford University Press.
- Schafer, Amy, Katy Carlson, Charles Clifton Jr. and Lyn Frazier. 2000. Focus and the interpretation of pitch accent: disambiguating embedded questions. *Language and Speech* 43(1), 75-105
- Schwarz, Florian. 2012. Situation pronouns as arguments of determiners, *Natural Language Semantics* 20(4), 431–475.
- Simons, Mandy .2007. Observations on embedding verbs, evidentiality and presupposition, *Lingua* 117(6), 1034–1056.
- Sode, Frank and Hubert Truckenbrodt. 2018. Verb position, verbal mood, and root phenomena in German. In Mailin Antomo and Sonja Müller (eds), *Non-canonical verb positioning in main clauses* (pp. 91-135). Hamburg: Buske
- Speas, Peggy and Carol Tenny. 2003. Configurational properties of point of view roles. In Anna Maria DiSciullo (ed.), *Asymmetry of Grammar. Volume 1: Syntax and Semantics* (pp. 315-344). Amsterdam: John Benjamins
- Stegovec, Adrian and Magdalena Kaufmann. 2015. Slovenian imperatives: You can’t always embed what you want! *Proceedings of Sinn und Bedeutung* 19, 641--658
- Sternefeld, Wolfgang. 1992. *Transformationstypologie und strukturelle Hierarchie*. Ms., Universität Tübingen
- Stringer, David. 2015. Embedded wh-questions in L2 English in India, *Studies in Second Language Acquisition*. 37(1), 101-133
- Truckenbrodt, Hubert. 2006. On the semantic motivation of syntactic verb movement to C in German, *Theoretical Linguistics* 32(2/3), 257–306.
- Vikner, Sten. 1995. *Verb movement and expletive subjects in the Germanic languages*. Oxford: Oxford University Press
- de Vries, Mark. 2008. The representation of language within language: a syntactico-pragmatic typology of direct speech. *Studia Linguistica* 62(1), 39-77
- Wechsler, Stephen. 1991. Verb second and illocutionary force. In Katharine Leffel and Denis Bouchard (eds), *Views on Phrase Structure* (pp. 177-191). Dordrecht: Springer
- Wiklund, Anna-Lena. 2010. In search of the force of dependent verb second, *Nordic Journal of Linguistics* 33(1), 81–91
- Williams, Edwin. 2003. *Representation Theory*. Cambridge, MA: MIT Press
- Wiltschko, Martina & Johannes Heim. 2016. The syntax of confirmational: A neo-performative analysis. In Gunther Kaltenböck, Evelien Keizer & Arne Lohmann (eds), *Outside the clause: Form and function of extra-clausal constituents* (pp. 305–40). Amsterdam: John Benjamins.
- Wiltschko, Martina. 2021. *The grammar of interactional language*. Cambridge: Cambridge University Press
- Woods, Rebecca. 2016. *Investigating the syntax of speech acts: embedding illocutionary force*. PhD dissertation, University of York (UK). URL: <https://etheses.whiterose.ac.uk/13883/>
- Woods, Rebecca. 2020. A different perspective on embedded V2: unifying embedded root phenomena. In Rebecca Woods and Sam Wolfe (eds), *Rethinking Verb Second* (pp. 297-322). Oxford: Oxford University Press.

- Woods, Rebecca. 2021. Towards a model of the syntax-discourse interface: a syntactic analysis of 'please'. *English Language and Linguistics* 25(1), 121-153. DOI: <https://doi.org/10.1017/S1360674319000510>
- Woods, Rebecca and Tom Roeper. 2021. The acquisition path of 'high' negation in English. In Danielle Dionne and Lee-Ann Vidal Covas, eds. *Proceedings of the 45th annual Boston University Conference on Language Development* (pp. 761-775). Somerville, MA: Cascadilla Press. Pre-print URL: https://blogs.ncl.ac.uk/rebeccawoods/files/2023/07/2021_BUCLD45-571.pdf
- Woods, Rebecca and Liliane Haegeman. In press. Removing question force from interrogative clauses: the West Flemish particle *kwestje*. In Tommaso Balsemin, Irene Caloi, Jacopo Garzonio, Nicolas Lamoure, Francesco Pinzin and Emanuela Sanfelici, eds. *Festschrift in honor of Cecilia Poletto's 60th Birthday, Quaderni di lavoro ASIt*. Pre-print URL: https://blogs.ncl.ac.uk/rebeccawoods/files/2023/07/KwestjePaper_submission_3.pdf.
- Woods, Rebecca and Tom Roeper. In press. Biased questions in English: an acquisition path. Invited submission to Manfred Krifka et al. (eds), *Biased Questions: Experimental Results & Theoretical Modelling*, to appear with Language Science Press. Pre-print URL: https://blogs.ncl.ac.uk/rebeccawoods/files/2023/07/WoodsRoeper_BiasQs_final-sub.pdf
- Zwart, Jan-Wouter. 2003. *Iets over zgn. V2-relatieven in het Nederlands*. Ms., Rijksuniversiteit Groningen