V2 all the way down
Germanic innovations in the embedded CP of German-Italian bilinguals*

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1 Introduction: acquiring the left periphery

This talk is about ***overgeneralisation* of Embedded V2** (EV2) in German-Italian bilinguals, and its **implications** for the **development of the CP** more broadly.

- Overgeneralisation of EV2 reported in existing work (discussed later; Müller, 1994; Schönenberger, 2001; Julien, 2007; Westergaard & Bentzen, 2007).

  ↪ The **source**, **extent**, and **formal nature** of this EV2 still *contentious* plus often language/child-specific.

Theoretical and empirical **potential** of these case-studies:

- Can EV2 shed light on typology of CP?
- Range of work showing that the left periphery is more or less 'exploited' crosslinguistically → *crosslinguistically* and *developmentally* **variable degrees of elaboration of the CP**? (cf. Rizzi, 1997).
- Can bilinguals inform cases of *diachronic* changes in EV2? (not main focus here).

1.1 Today

Two broad aims:

- Understand overgeneralisation of EV2 from both a ***formal* and *developmental* perspective**.
  - How can it be characterised 'synchronically'?
  - Which developmental processes lead to this overgeneralisation stage?
- Probe its potential implications for **typology and variation of the left periphery**.
  - How can the 'structure' of the (embedded) CP be formalised?
  - How does it compare to other (adult) systems?

Our contribution Theoretical significance of EV2 in German-Italian bilinguals: (i) a *formal* analysis of their EV2 stage, (ii) a *developmental* motivation for this stage.

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In a nutshell

***Constrained* overgeneralisation** of EV2 in German-Italian bilinguals. Significance is *three-fold*: (1) We argue *not* parameter missetting; (2) We argue *not* transfer from Italian; (3) Instead, we argue indicative of *CP-complexification*.

→ Analysis in terms of **CP differentiation**: *statically*, three projections can generate the EV2 patterns; *developmentally*, MMM (Biberauer, 2019) rationalises their emergence.

→ We argue EV2 provides a **lens into the formal development of CP**, including its parallels in ***contact-induced* morphosyntactic** change.

2 Background

2.1 Verb Second

Verb Second (V2) – prototypical Germanic property.

- The finite verb occupies the second (structural) position in **main clauses**, after an initial XP.

(1) German

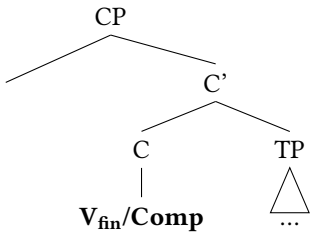
a. Ich **habe** heute drei Briefe geschrieben
I have.1SG today three letters written
'I have written three letters today.'

b. Diesen Mann **kenne** ich nicht
this man know.1SG I not
'This man, I don't know him.'

c. Ich glaube dass er ein Nickerchen **macht**
I think that he a nap make.3SG
'I think he's taking a nap.'

Contemporary analyses of V2 vary:

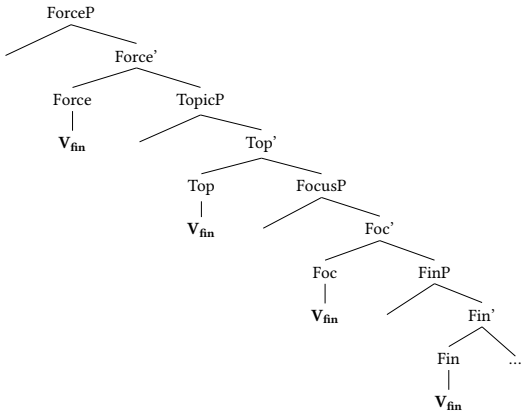
- **Classic analysis** of V2: V2 as V-to-C and XP-fronting to SpecCP (den Besten, 1983).



- Complementary distribution between finite verbs and complementisers → **V-final embedded word-order**.

- **Cartographic analyses** of V2: variation arises **as a function of height of movement** in an enrinched left-periphery.

→ Allows for degrees of 'liberality' in linear orders observed in V2 systems.



From **'strict'** to **'relaxed'** V2 languages.

- Variation across V2 systems in the kinds of V3 (or V3+) structures allowed: e.g., Old Romance is more liberal than other languages (notably West Germanic) (Holmberg, 2015).

→ **Cartographic typology** (Poletto, 2002; Wolfe, 2015). **Fin-V2** (low) vs **Force-V2** (high) languages.

(2) $[_{\text{ForceP}}$ (XP) Force $[_{\text{TopP}}$ (XP) Top $[_{\text{FocP}}$ (XP) Foc $[_{\text{FinP}}$ (XP) **Fin-$\mathbf{V_{fin}}$** …]]]]

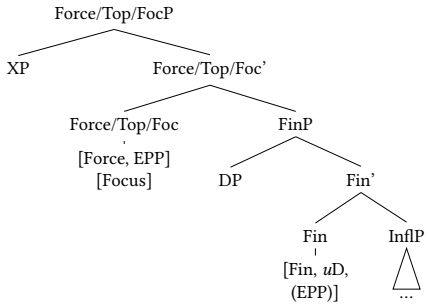
(3) $[_{\text{ForceP}}$ (XP) **Force-$\mathbf{V_{fin}}$** $[_{\text{TopP}}$ (XP) Top $[_{\text{FocP}}$ (XP) Foc $[_{\text{FinP}}$ (XP) Fin …]]]]

More **emergent** views on the microvariation in V2 (more on some of them later), often drawing on Giorgi & Pianesi (1997):

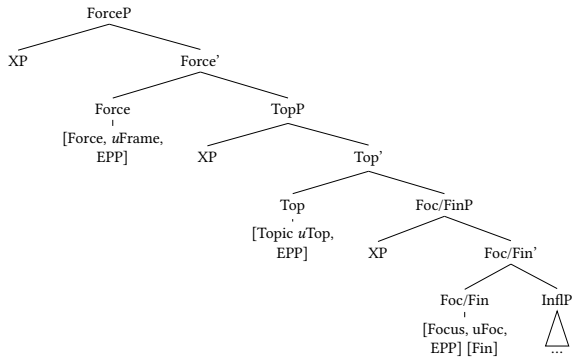
- **Biberauer & Roberts (2015)**: left-peripheral positions are non-distinct in *strict* V2 systems; they reflect an acquisitionally 'earlier' stage (undifferentiated root C head).
- **Walkden (2017)**: Kiezdeustch systems with more V3 orders modelled as a 'split' (non-recursive) CP with CP_1 and CP_2 (see also Sluckin, 2025).
- **Cormany (2015), Hsu (2017)**: variation across types of V2 systems in terms of feature scattering/bundling.
- **Cournane & Klævik-Pettersen (2023)**: feature bundling; acquisition/diachronic bias towards more 'bundled' CPs.
- (See also, i.a., **Soares, 2006; Larson, 2021**, for non-V2-centred proposals).

→ **Key: the elaboration of the CP is crosslinguistically variable** – which in turn helps shed light on variation in V2.

(4) **Old English V3**



(5) **Old Sicilian, Old Italian V4**



(Hsu, 2017: 18, 20)

2.2 Embedded clauses and V2

Variation also in the extent to which embedded clauses are V-final or in whether V2 is also allowed. Broad (simplistic) macro-division often in terms of **symmetrical** and **asymmetrical** V2[1]. More specifically (Gärtner, 2016):

- **'Well-behaved' V2**: V2 is strictly asymmetric and occurs only in complementiser-less clauses.
  - German, Dutch and Afrikaans.
- **Narrow embedded V2 (*n*EV2)**: V2 with complementisers, but in a constrained subset of contexts (e.g., linked to "assertion").
  - Frisian and Mainland Scandinavian.
- **Broad embedded V2 (*b*EV2)**: V2 occurs more broadly in embedded contexts.
  - Icelandic and Yiddish.

(6) a. German

Sigrid *glaubt* **dass** Waltraud das Buch gekauft **hat**
Sigrid thinks that Waltraud the book brought has

'Sigrid thinks that Waltraud has bough the book'.

b. Norwegian

Jeg *oppdaget* at jeg (**hadde**) ikke (**hadde**) lest den
I discovered that I had not had read it

'I discovered that I hadn't read it.'

c. Norwegian

Han *tvilte* på **at** hun (***hadde**) ikke (**hadde**) møtt denne mannen
he doubted on that she had not had met this man

'She doubted that she hadn't met this man.'

d. Yiddish

Avrom *gloybt* **az** Max **shikt** avek dos bukh
Avrom believes that Max sends away the book

'Avrom believes that Max will send away the book'.

(Holmberg, 2015: 356, 358)

Embedded V2 (EV2) in asymmetrical languages possible in complements of so-called **bridge verbs**, in some relative clauses, among others. 'Bridge verbs' generally assumed to align with verb class as in (8).

(7) a. German

Maria *glaubt* Peter **geht** nach Hause
Maria thinks Peter goes to home

'Maria thinks that Peter is going home.'

b. Norwegian

Jeg *oppdaget* at jeg (**hadde**) ikke (**hadde**) lest den
I discovered that I had not had read it

'I discovered that I hadn't read it.'

(Holmberg, 2015: 358)

[1] See Biberauer (2002), Wiklund et al. (2009), i.a., for discussion of the issues in this classification.

(8) Verb classes in Hooper & Thompson (1973: 473-74). Only Classes A, B and E permit EV2.
   a. **Class A – strongly assertive** (say, claim, report)
   b. **Class B – weakly assertive** (suppose, believe, think)
   c. **Class C – non-assertive** (doubt, deny, be (im)possible)
   d. **Class D – factive** (resent, regret, be surprised)
   e. **Class E – semi-factive** (know, realise, learn)

In German (focus here), also found in adjunct clauses denoting cause (9), and, in some V2 languages, in 'extent clauses', often with semantico-pragmatic effects.

(9) a. **Propositional modification** (V-final or V2)

   Die Straße is weiß, weil es (**hat**) geschneit (**hat**).
   the road is white because it has snowed has

   'The road is white because it has snowed.'

   b. **Epistemic modification** (V2 only)

   Es hat einen Unfall gegeben, weil der Airbag **ist** aufgegangen.
   it has an accident given because the airbag has deployed

   'An accident has happened because the airbag has deployed.'

   c. **Speech act modification** (V2 only)

   Paula hat den Job übrigens bekommen. Weil das **wolltest** du doch unbedingt wissen
   Paula has the job by-the-way got because that wanted you PART absolutely know

   'By the way, Paula got the job. Because you absolutely wanted to know it.'

(Antomo, 2012: 32-33)

2.3 Acquisition of (embedded) V2

'Basic' V2, including *topicalisation*, reported to be **early-acquired** (i.a., Boser et al., 1992; Poeppel & Wexler, 1993; van Kampen, 2010; Santelmann, 1995; Westergaard, 2009) → plausibly some (maybe simple) representation of CP at early stages.

Acquisition of embedded word-order varies across languages and learners. Lots of work on monolinguals:

- *Monolinguals*
  - Generally **V-final** order across the board in **West Germanic**, although with some errors reported (see Fritzenschaft et al., 1990, on Benny).
  - More **overgeneralisation** of Embedded V2 in **Scandinavian** languages (Westergaard & Bentzen, 2007; Heycock et al., 2013; Westergaard et al., 2014; Waldmann, 2014; Ringstad & Kush, 2021; Jensberg et al., 2024)
  - Fine-grained **Swiss German** study by Schönenberger (2001) on Lucernese Swiss German:
    * Until age 5, the two children produce EV2 in *target-like* contexts: complements of bridge verbs, *wil*-clauses.
    * And *non-target-like* contexts: embedded wh-V2, and other complementiser structures (e.g., *wenn* 'if/when', *öb* 'whether').
    * Two orders found: *complementiser* V_{fin}... (**Linear V2**) and *complementiser Z* V_{fin}... (**Linear V3**)
      · Constraint: Z = pronominal subject until age 5.

↪ Broader or localised pattern? Not observed to the same extent in Bernese Swiss German (e.g., Penner, 1990; Penner & Bader, 1991) and Zurich German (Escudero, p.c., cited in Schönenberger, 2001).

This talk: Theoretical significance of EV2 and V-final orders in **German-Italian *bilinguals***, who show overgeneralisation of EV2.

- Case-study highly comparable to Müller (1994, *et seq.*) and Schönenberger (2001), but with **different theoretical results**.
  - We argue *not* a case of Yiddish-type setting (*pace* Müller, 1996).
  - We argue *not* straightforwardly a case of transfer of Italian-like syntax (*pace* Müller, 2003).
  - → We argue a case of developmental complexification of the (embedded) CP.
- Supporting parallels in the diachrony and contact scenarios of V2: Afrikaans, Manenberg Kaaps and Cimbrian.

↪ Sheds light on **the formal development of CP**, its **crosslinguistic elaboration** and its **formal stability** in language contact driven by child language bilingualism.

3 The data

3.1 A precedent

Müller (1994, 1996, 2003) – case-study of German-French bilingual Ivar

- One of the three children studied (Ivar) often shows EV2 order, including topicalisation. Similar to German-Italian bilinguals Lisa and Giulia (Taeschner, 1983).
- Carolina and Pascar show required V-final order throughout.

(10) a. Ivar, 3;04.09

Erst **wenn** wir **sind** fertig mit das
first when we are ready with it

'Not until we have finished it.'

b. Ivar, 3;08.01

Guck mal **wie** des **is** groß
look once how this is big

'look how big this is.'

c. Ivar, 3;05.07

Daß dann **sagt** er ...
that then says he

'that he says then ...'

- **High proportion of EV2** reported: 7 V-final clauses out of 167 (4%).
- EV2 attested in all of *wenn*, *dass*, *wh*-complements; frequency of each unreported.
- **Topicalisation** compatible with all complementisers (though proportion unreported).
- Relatively **little Linear V2**: 'Does not use the order COMP-V_{fin}-Subj-XP, except for those subordinate clauses where the element introducing it (a wh-word or a relative pronoun) functions as the subject of the clause.' (Müller, 1996: 1016).

Proposed explanations:

- **1994**: missetting of the V2 parameter ([+FINITE] and [WH] incorrectly assigned to different heads). Yiddish-like grammar.

- **1996**: abducing an 'incorrect', Yiddish-like grammar. *Not* a case of transfer.
- **2003**: *transfer* from French, as a 'relief' strategy in the face of ambiguous input.

Outstanding questions:

- How widespread a pattern is Ivar's system?
- What is the proportion of EV2 observed in other children?
- 'Subparameters without triggering data'? (Müller, 2003: 166)
- Need for more in-depth data collection: are there differences in word-order patterns across embedding markers in other children? (Schönenberger, 2001).
- Current analyses contradictory: which one is empirically more successful?

→ I take Müller (1994, *et seq.*) and the finer-grained analysis in Schönenberger (2001) as points of departure, and expand on their work.

3.2 Corpus study: Methodology

Corpus study on the development of CP in 5 German-Italian (simultaneous) bilinguals. All *strongly balanced*, bar AUR (per metric in Hager & Müller, 2015).

	Files	Age	MLUw
AUR	42	1;09-4;00	1.03-4.47
CAR	70	1;08-5;07	1.0-5.20
LUC	52	1;06-4;00	1.0-4.30
LUK	63	1;07-5;00	1.0-4.70
MAR	68	1;06-5;00	1.03-4.57

Table 1: Children studied (Müller et al., 2006)

Structures studied:

- **Word-order in embedded clauses** and types of embedding markers produced.
  - V-final order, linear V2, linear V3 order, (ambiguous/other)?
  - Do all embedding markers display the same surface word-order?
  - If EV3, any restrictions on the type of subjects we observe? (Schönenberger, 2001).

3.3 Corpus study: Results

3.3.1 Broad results

Overgeneralisation of embedded V2 across 4 of the 5 children[2].

(11) a. AUR, 3;09.01

Weil ich **hab** auch (recht)
because I have too right

'Because I'm also right.'

b. CAR, 2;09.25

Weiss ich nicht was **ist** das
know I now what is this

[2] I set AUR aside in the rest of the data presentation, but I will return to him later.

'I don't know what this is.'

c. CAR, 2;11.23

Ja ist weich-e, wenn wenn **war** ich umgefallen
yes is soft-FEM if if was I fallen

'Yes, it is soft when I fell.'

d. LUC, 3;03.04

Ich zeig dir wo der **fährt** mit 'm oller
I show you where he drives with the scooter

'I (will) show you where he is driving with the scooter.'

e. LUK, 2;07.15

Der muß runter gucken auf was **ist** passiert
he must down look at what is happened

'He must look down to what happened.'

f. MAR, 3;01.27

Weil die hexe **hat** hier drin gesl- gemacht
because the witch has here in gesl- made

'Because the witch has made it in here.'

g. MAR, 3;02.12

Ich zeig dir was **is** ein schwein
I show you what is a pig

'I (will) show you what is a pig.'

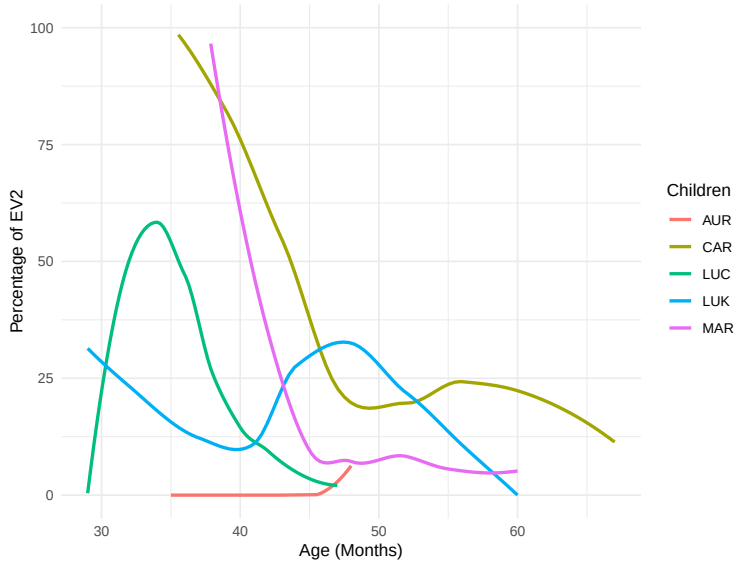


Figure 1: Proportion of EV2 by child and age

Two profiles of EV2 overgeneralisation observed:

- Children with ***total*** or ***partial*** absence of embedded V-final order.
- The following Table summarises the different proportions of EV2 per child; recall AUR does *not* exhibit overgeneralisation of EV2 to non-target-like contexts.

	EV2 start	V-final start	Proportion EV2
AUR	3;05.30	2;11.08	14.5%
CAR	2;08.21	3;04.08	54.5%
LUC	2;07.30	2;05.03	29.2%
LUK	2;07.29	2;07.15	16.5%
MAR	3;01.27	3;04.08	53.9%

Table 2: Proportion of EV2 across the four children until 4;00

Being more precise: Point of significant decrease in proportion of EV2 determined by **change-point analysis**, example below.

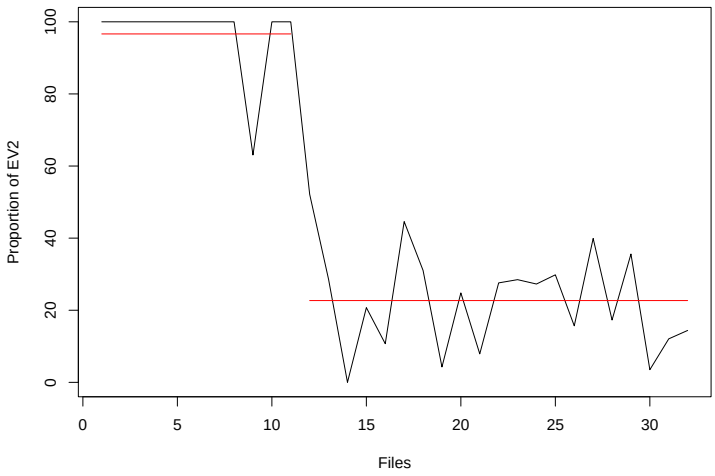


Figure 2: Change-point analysis on CAR's EV2 distribution

! Point of inflection in EV2 proportion **coincides** with significant increase in production of V-final orders. Change-point analysis on the distribution of EV2 and V-final orders (example in Figure 2) shows that their proportion decreases and increases (respectively) at similar times.

	EV2 start	EV2 decrease	V-final increase
CAR	2;08.21	**3;04.08**	**3;07.07**
LUC	2;07.30	**3;01.02**	**3;01.02**
LUK	2;07.29	**2;09.18**	**2;10.01**
MAR	3;01.27	**3;06.09**	**3;07.12**

Table 3: Rise and fall of EV2 vs V-final orders based on change-point analysis

→ **Inverse correlation** between EV2 frequency and V-final frequency → suggesting a stage of overgeneralised EV2 before it is abandoned, even if it co-exists with V-final.

	EV2 pre change-point
CAR	100%
LUC	39.59%
LUK	47.14%
MAR	96.7%

Table 4: Proportion of EV2 before change-point in all children

3.3.2 Fine-grained results

We now unpack these impressionistic results further, as follows:

- By word order (V-final, linear V2, linear V3)
- By embedding marker
  - By presence/absence of (non-default) topicalisation.
  - By type of (default) subject observed (pronominal vs phrasal) – not discussed here.

→ **Focus on EV2 stage (pre-change-point).**

Zooming in – word order

- Like Schönenberger, we observe **two orders** in their EV2:

1. *complementiser* V_{fin}... **Linear V2**
2. *complementiser XP* V_{fin}... **Linear V3**

↪ Where XP generally = Subject, with exceptions to come later.

(12) a. CAR, 2;10.16

Das sind für die bonbons, wenn **hab** *ich* geburstag
this are for the chocolates if have I birthday

'These/This are for the chocolates when I have my birthday'

b. LUC, 2;07.30

Mama (hat) gesagt von (erster) nur nich wie **soll** *man* angucken
mum has said of first only not how should one watch

'Mama said from – from (first) – just not how you should watch.'

c. MAR, 3;05.11

Nein gle- gleich wenn *das* **is** fertig dann trinkt die
no gle- even when this is done then drink it

'No, as soon as it is ready, drink it.'

- **Linear V2** often emerges before **Linear V3** in the four children, and these structures co-exist thereafter.

	Linear V2	N	Linear V3	N
CAR	2;08.21	16	2;11.13	19
LUC	2;07.30	2	2;10.24	3
LUK	2;07.15	1	2;08.12	3
MAR	3;02.12	18	3;01.27	13

Table 5: Emergence of Linear V2 and V3 orders and attestations during EV2 stage

- Potentially suggestive of some stage-like development from Linear EV2 > EV3 (also insinuated in Schönenberger, 2001), but too small a sample.
- Additionally, Linear EV2 most common with *wh*-V2, out of all embedding contexts. *Weil* presents EV3 only.

Zooming in – data by embedding marker

- (Non-target) EV2 with all of ***weil*** 'because', ***wenn*** 'if/when', ***wh*-complements/relatives** and (very rarely) ***dass*** 'that'[3].

[3]Other complementisers like *ob* 'whether' or *als* 'as/when' are late-acquired, so not produced at the stage where EV2 is predominant.

- Table 6 and Table 7 compare the proportion of EV2 with the most frequent embedding markers *before* and *after* the relevant change-point (Figure 2) in the children who show *total* absence.

Children with *total absence* – before change-point

	wenn	*%*	*wh*	*%*	*weil*	*%*	*dass*	*%*	**All**	**%**
CAR	0-12	100%	0-12	100%	0-11	100%	–	–	0-35	100%
MAR	1-1	50%	0-17	100%	0-12	100%	–	–	1-30	96.7%
Total	1-13	7.1%	0-29	100%	0-22	100%	–	–	1-65	98.4%

Table 6: Proportion of EV2 by embedding marker before change-point (CAR and MAR)

	wenn	*%*	*wh*	*%*	*weil*	*%*	*dass*	*%*	**All**	**%**
CAR	86-7	7.5%	57-0	0%	13-195	93.8%	2-0	0%	158-202	56.1%
MAR	45-3	6.3%	57-4	6.6%	33-38	53.5%	7-0	0%	142-45	24.1%
Total	131-10	92.9%	114-4	3.4%	46-233	83.5%	9-0	0%	300-247	45.2%

Table 7: Proportion of EV2 by embedding marker after change-point (CAR and MAR)

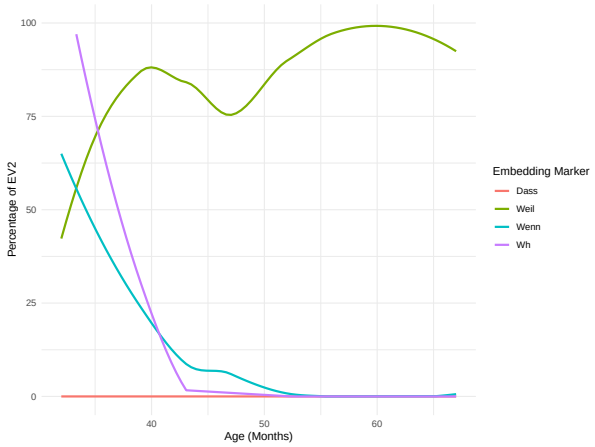


Figure 3: CAR's proportion of EV2 by embedding marker (CAR and MAR)

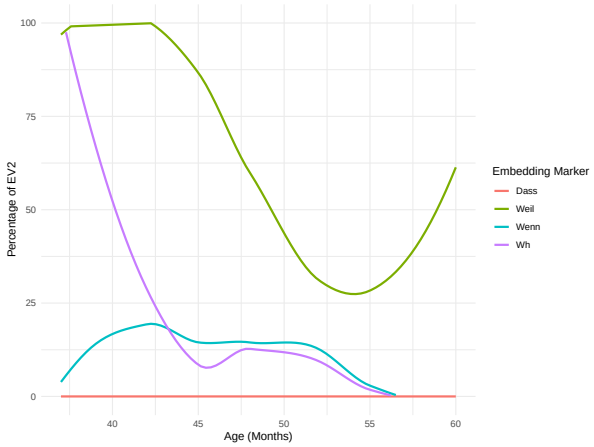


Figure 4: MAR's proportion of EV2 by embedding marker

- Table 8 displays the same data for the two children with *partial* absence; data is reported for all files, due to the comparatively lower frequency of EV2 in these children.

Children with *partial absence* – all files

	wenn	*%*	*wh*	*%*	*weil*	*%*	*dass*	*%*	**All**	**%**
LUC	19-1	5%	14-4	22.2%	26-24	48%	13-2	13.3%	72-31	30.1%
LUK	70-0	0%	52-5	8.8%	69-36	34.3%	16-0	0%	207-41	16.5%
Total	89-1	1.1%	66-9	12.3%	95-60	38.7%	19-2	14.3%	279-72	20.5%

Table 8: Proportion of EV2 by embedding marker (LUC and LUK)

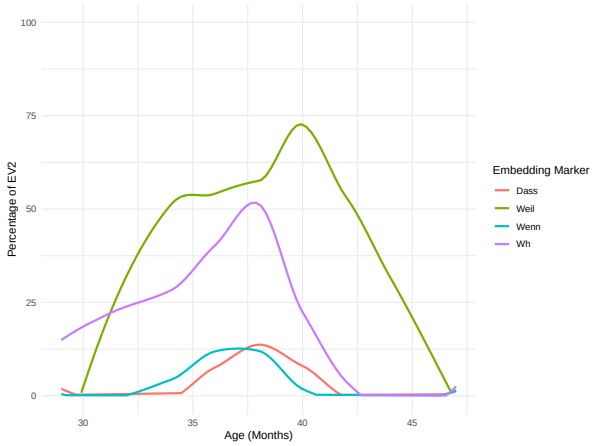


Figure 5: LUC's proportion of EV2 by embedding marker

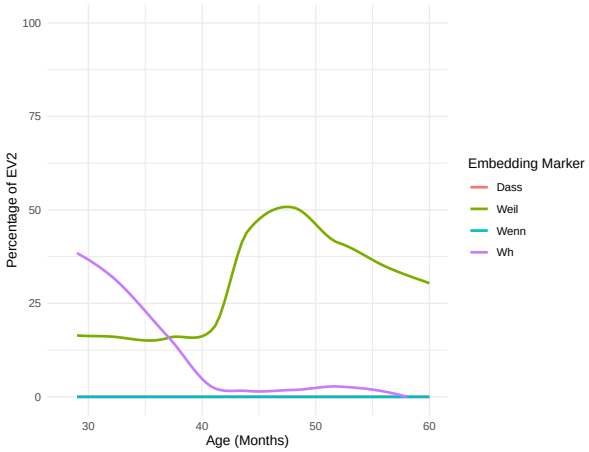


Figure 6: LUK's proportion of EV2 by embedding marker

A condensed overview of the use of EV2 with each of the embedding markers is offered below:

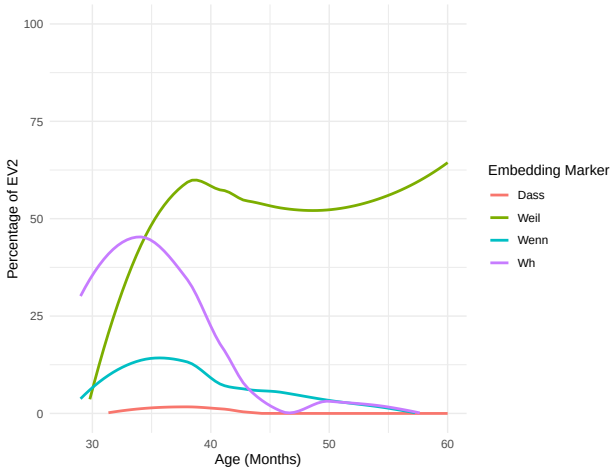


Figure 7: Proportion of EV2 by embedding marker, across all 4 children

→ **Potential additional pattern? *Wh*-V2 appears more likely to be overgeneralised than *wenn*-V2**[4]

Two noteworthy patterns exist in the dataset: these are (i) the abundance of *wh*-V2 across all children, and (ii) predominance of EV2 with *weil*, even after EV2 has been retracted from in other complementisers.

- ! **EV2 with wh-complements** → ungrammatical in almost all Germanic languages, including the most permissive (Vikner, 1995). With the exception of Afrikaans.
- Not just frequent but seemingly **generalised to predicates that generally disallow embedded *wh*-V2**: *discover*-type or 'resolutive' predicates.

  ↪ *gucken* ('look'), *wissen* ('know'), *hören* ('hear'), *sagen* ('say'), *erklären* ('explain').
- Some fit the characterisation of Question Predicates (McCloskey, 2006), *but* often **without the illocutionary force of a true question**.

(13) a. MAR, 3;05.11

Ich **erklär** wo is das wasser denn
I explain where is the water then

[4] Which I set aside here, due to the small sample.

'I explain where the water is, then.'

b. CAR, 2;10.16

Der möchte nicht **hören** was machst du
he want not hear what do you

'He doesn't want to hear what you're doing.'

! **Abundance of EV2 with *weil***, even after overall decrease in EV2.

- Generally felicitously used, though several ungrammatical structures exist, like (14a, 14c)[5].

(14) a. MAR, 3;05.11

Kann keiner das kaputt machn **weil** da **is** klebe dran
can no-one this broken make because there is glue on.it

'No-one can break this because there is glue on it.'

b. LUC, 3;05.00

Das kann man aber nicht rausdrücken **weil** sonst **wär** das kaputt
this can one but not push.out because otherwise would.be it broken.

'But you can't push it out because otherwise it would break.'

c. LUK, 4;02.28
Mother: Ja / aber guck ma das is der zweite ohne schuhe / diesn kung fu mann hier (den) (machen) wir (auch) (noch) (weg) / ja /

Child: Ja **weil** das **is** ein räubaaa
yes because this is a robbery

'Yes because it's a robbery.' (consultant note: 'falscher Satzbau: "ist" muss am Ende stehen')

→ This contrasts with ***monolinguals***, e.g., Simone (Miller corpus), who appears to **default to V-final**.

– In her production from 1;09 to 4;00, out of 284 *weil*-clauses, only 22 present EV2 – **7.7%**.

- Same patterns observed in a wider sample in Schulz & Sanfelici (2020).

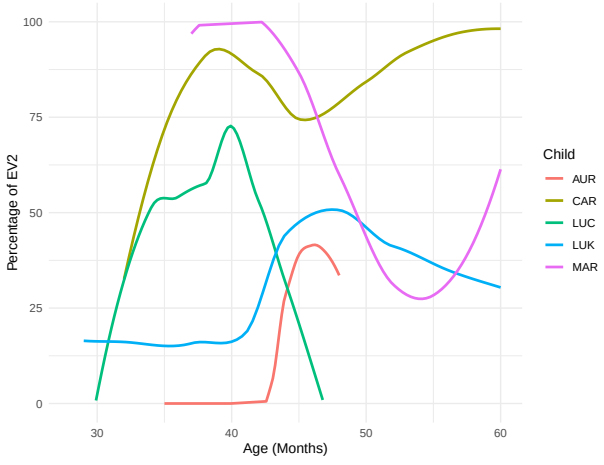


Figure 8: Proportion of EV2 with *weil* across all the children

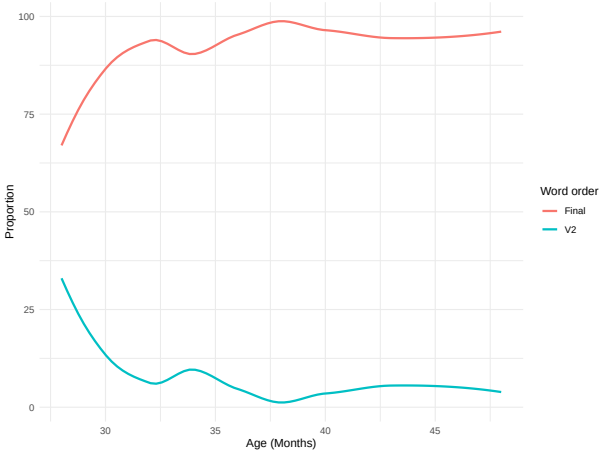


Figure 9: Proportion of EV2 with *weil* in a monolingual (Simone)

→ CAR and MAR, and to a lesser extent, LUC, **default instead to EV2**.

[5]Based on native consultation with German native speakers.

	damit		*ob*		*als*		*Ø*	
CAR	11-0	3;04.22	18-0	4;03.09	23-0	4;01.00	20	4;02.11
LUC	4-0	3;01.12	1-0	3;10.29	2-0	2;11.07	1	3;04.15
LUK	3-0	3;04.25	5-0	2;11.26	5-0	4;01.20	4	3;08.03
MAR	–	–	2-0	4;08.09	–	–	3	4;10.11

Table 9: Attestations and emergence of other embedding markers

- Adult-like distribution of *weil* achieved significantly later.
  - ↪ **50%** EV2 with *weil* in **adult corpora** (Kempen & Harbusch, 2016).
  - ↪ Likely much *lower* in **child-directed speech**. MAR's adult input across all files (1;08-5;00) contains 62 *weil*-clauses, only 2 of which show V2 – **3.2%**.
- **Semantico-pragmatic distribution** of word order with *weil* plausibly **not acquired yet** (Antomo & Steinbach, 2010): possibly prioritising instead a structurally-based hypothesis (Gagliardi, 2012) and/or due to pragmatic difficulties (see Lewis et al., 2017, who show that children may prefer to interpret some complement clauses as assertive when they should not).
- Finally, other embedding markers found, but they are produced **late** and so with V-final order: *damit* 'so that', *ob* 'whether', *als* 'when', *obwohl* 'although'…
- Importantly, too, *Dass*-drop ('Ø' below) with bridge verbs (EV2) is also rare.

Zooming in – embedding marker and topicalisation

- ! **Asymmetry** in which embedding markers present topicalisation with EV2.
- *Weil*-clauses with a (non-default) topic with EV2 are abundant. Very rarely, this is found with *dass*.

(15) a. CAR, 3;05.06

Weil **das** könn wir auch ziehn und das könn wir nich so schieben
because this can we also pull and this can we not so push

'Because we can pull this and we can't push that.'

b. LUC, 2;11.07

Weil **die** ham wir [s]on woanders geleg
because it have we already elsewhere put

'Because we have already put this somewhere else.'

(16) LUC, 3;02.06

Mama papa sagen dass da sind eier dinne / okay ↑
mum dad say that there are eggs in

'Mum (and) dad say that there are eggs in there.'

→ Embedded topicalisation with *wenn* and *wh*-complements is systematically ***unattested*** when these present EV2[6].

Zooming in – embedding marker and type of subject

- Further, most embedding markers display an ***apparent* restriction on subject types**, bar *weil* (as in Schönenberger, 2001).
- Particularly true of *wenn* 'if', plausibly also *wh*-complements.

	$\text{Subj}_{\text{pron}}$	Subj_{DP}	Topic
CAR	13 (*wenn*), 3 (*wh*), 84 (*weil*)	1 (*wh*), 26 (*weil*)	31 (*weil*)
LUC	1 (*wenn*), 1 (*wh*), 14 (*weil*)	3 (*weil*)	7 (*weil*), 2 (*dass*)
LUK	2 (*wh*), 10 (*weil*)	–	6 (*weil*)
MAR	1 (*wenn*), 1 (*wh*), 18 (*weil*)	5 (*weil*)	16 (*weil*)

Table 10: Type of subject by embedding marker during the EV2 stage

- Almost always ***pronominal*** subjects follow $Comp \rightarrow Comp\ Subj_{pron}\ V_{fin}$...

- What causes this asymmetry? Two options:

  1. **Syntactic cause** – Schönenberger (2001): grammatical constraint on subjects and embedding markers, which follows from their structural position and the nature of pronominal items at this EV2 developmental stage.
  2. **Extrasyntactic cause**: frequency? distribution of pronominal *vs* non-pronominal items in child speech? Alternatively, a more general grammatical constraint (not specific to EV2)?

↪ I argue against (1) → **V-final clauses show the same skew, especially at early stages, suggesting it cannot be (only) due to the syntactic derivation of EV2**.

- Even V-final *wenn* clauses display very few cases of non-pronominal subjects.

- Non-pronominal subjects emerge late, often *after* EV2 has been retracted from, and holds for children who do *not* show an EV2 stage (AUR).

	V-final *wenn*	Subj_{DP}	Start	End of EV2 stage
AUR	35	1 (2.9%)	3;09.01	No EV2
CAR	86	10 (11.6%)	4;02.25	3;04.08
LUC	19	2 (10.5%)	3;01.02	3;01.02
LUK	70	6 (8.5%)	2;10.01	2;09.18
MAR	46	3 (6.5%)	4;00.13	3;06.09

Table 11: Non-pronominal subjects with V-final *wenn*

→ Suggests a **skewed distribution** in pronominal/non-pronominal subjects of **potentially wider scope**, independent of EV2.

3.4 Interim summary: explananda

1. Total or partial absence of V-final at early stages.
2. Inverse correlation between frequency of V-final and EV2.
3. Co-existence of EV2 and EV3.
4. EV2 observed with all of *wenn*, *weil*, *wh*-complements and (rarely) *dass* – but with *differential* behaviour.
5. *Weil* (and possibly *dass*) allow topicalisation with EV2; *wenn* and *wh*-complements do *not*.

↪ Highly parallel to the description in Schönenberger (2001), and, partly, to Müller (1994, *et seq.*).

[6] With one exception in LUK: *Ich gucke, was da ist ist passiert* 'I am looking at what happened there'

Next:

- We evaluate existing proposals for similar EV2 data in acquisition – Müller (1994, 1996, 2003), Schönenberger (2001).
- Schönenberger (2001) is most successful, but it faces, nonetheless, several shortcomings – particularly *it lacks a developmental theory that explains EV2 overgeneralisation.*

→ We introduce a new analysis, drawing on her 'minimally split CP'.

4 Probing existing analyses

→ **Neither transfer, nor missetting of parameter (Yiddish-like)**

- Not Yiddish setting: *wh*-V2 predicted to be ungrammatical; Yiddish allows embedded topicalisation. Instead, patterns attested are expansions of (some) featural possibilities in German's main clause (*pace* Müller, 1994, 1996).
- Not transfer from Italian V-to-T: I argue the **verb is moving to C** in their EV2 (*pace* Müller, 2003), and unlike some proposals for EV2 in Scandinavian children.

↪ V_{fin} systematically moves above Neg and Adv.

(17) a. MAR, 4;00.13

Weil sonst **sehn** wir es *nich*
because otherwise see we it not

'Because otherwise we don't see it.'

b. CAR, 2;11.13

Guck mal, was ich **konnte** *nicht*, was ich **konnte** *nich* laufen!
see once what I could not what I could not walk

'Look what I could not – what I could not walk.'

c. LUK, 3;04.25

Nein guck ma was **ich** hol *jetzt*
no look once what I get now

'No, luck what I am getting now.'

d. CAR, 3;04.22

Ahah dann wär ich aber böse wenn du **warst** *gar* *nich* auf toilette
INTJ then would.be I but angry if you were absolutely not on toilet

'Haha, then I would be angry if you were not on the toilet.'

↪ V_{fin} directly follows topicalised constituents

(18) a. LUC, 3;02.06

Weil *das* **hat** mama gekauft in italien
because this has mum bought in Italy

'Because mum bought THIS in Italy.'

b. LUK, 2;10.01

Hm weil *da* **is** kein platz mehr
hm because there is no place more

'Because there is no more space there.'

c. MAR, 3;08.27

In das auto habn wir ein bißchen geschlafn. Weil *da* **war** die nacht
in the car have we a bit slept because there was the night

In the car, we slept a bit. Because it was (the) night there.

↪ $V_{non\text{-}fin}$ always precedes the object (OV) in complex structures with modals and auxiliaries.

(19) a. CAR, 2;11.13

Ich bin da drauf, wenn war ich, war so krank, wenn **habe** ich *so viel* **gesehen**
I am there on.it if was I was so ill if have I so much seen

'I'm on there, when I was ill or when I saw a lot.'

b. LUC, 3;03.04 Weil er **will** auch *ein'* **haben**
because he want too one have

'Because he also wants to have one.'

- Linear EV2/EV3 orders are found, *but* V3+ orders are unattested.

↪ Any resemblance to V2 would be accidental.

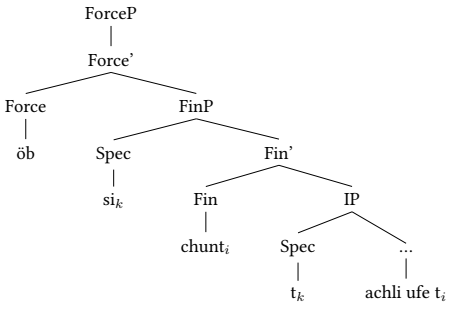
! AUR most clearly dominant in Italian, yet shows no EV2 stage → undermines transfer from Italian.

→ By implication, TP-based analysis of their V2 system also infeasible (see also Vikner, 1995, for other issues).

We interpret the data as an *extension* of a *Germanic* pattern (V- and XP-movement to CP)

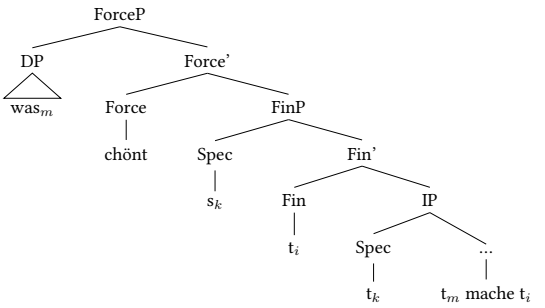
→ This leaves us with one other extant acccount for overgeneralised V2: **Schönenberger (2001)**.

- Key proposal: **'minimally split CP'**, into ForceP and FinP.



(Schönenberger, 2001: 295)

- **Verb-movement** targets **different heads in the CP** depending on complementiser.
- Comp blocks topic movement higher than SpecFinP.
- Atonic subject pronouns move to the Wackernagel position (SpecFinP) (Roberts, 1996). Non-pronominal subjects must stay in IP.



(Schönenberger, 2001: 299)

Schönenberger (2001) *vs* our data.

! **Ontological problem**: What's the status of her 'minimally split' CP, relative to, e.g., cartography?

! **Developmental problem(s)**: Where do ForceP and FinP come from? What do main-clauses look like? What does children's CP look like after retracting from EV2?

→ **Needed**: Developmental account motivating this 'minimally expanded' CP (insofar as these Swiss German monolinguals ≠ adult Swiss German).

! **Question**: What's the treatment for *weil*?

Next:

- Adopt the intuition in Schönenberger's analysis, endorsing especially (some kind of) 'minimally split' CP.

→ Update its implementation and its motivation.

5 Our proposal

Point of departure: **extension** of a *Germanic* pattern (V- and XP-movement to CP) that is subsequently **formally integrated** into the bilinguals' German.
→ Analysis in terms of elaboration or **complexification of the embedded CP**.

My initial assumptions/aims:

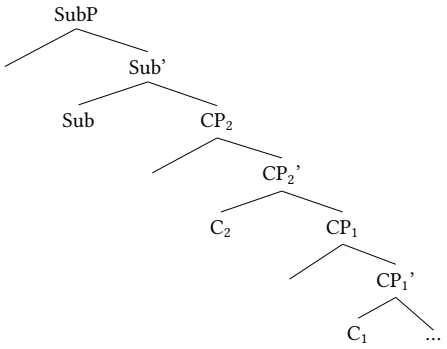
- Minimal ontology/machinery. Maximal role of third factors and input (Chomsky, 2005).
- Emergent syntactic categories → Emergent cartography (or comparable structure) (i.a., Ramchand & Svenonius, 2014; Scontras et al., 2017; Biberauer & Roberts, 2015; Leivada & Westergaard, 2019; Larson, 2021).
- Supporting, *to the extent possible*, the representations assumed during development with empirical data.

Analysis is two-part: (i) a 'synchronic' syntactic analysis of the EV2 stage, before (ii) motivating its potential development

Syntactic account

→ Embedded V-to-C and topic/subject movement evidence **a more richly articulated CP in the bilinguals** than in monolingual adult German.

- I tentatively propose three left-peripheral projections for the EV2 stage:
  - SubP, from Bhatt & Yoon (1992), specific to embedded clauses.
  - (Non-recursive) CP_1 and CP_2, from Walkden (2017)[7].



- Draw on Bhatt & Yoon's (1992) two-way distinction between '**pure**' (structurally higher, SubP) and '**modal-flavoured**' complementisers (lower).
  - This will generate differential behaviour among complementisers.
- And a **minimally expanded CP**, analogous to Walkden's (2017) (non-recursive) $\mathbf{CP_1}$ and $\mathbf{CP_2}$ for main-clauses in monolingual German.

[7] cf. Vikner (1995) on CP recursion.

- **CP_1** ≈ FinP and FamP (Frascarelli & Hinterhölzl, 2007).
- **CP_2** ≈ FocusP until ForceP.

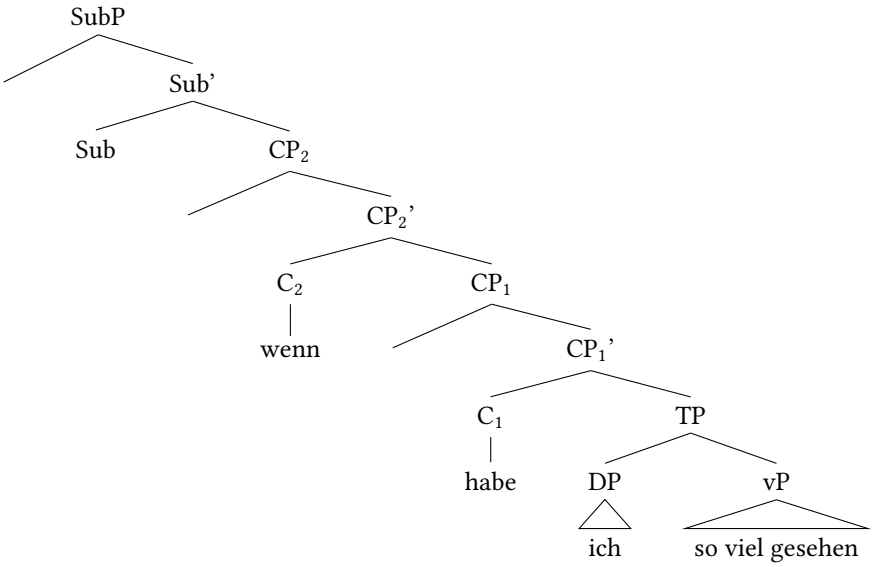
Deriving the patterns:

- Topicalised constituents in CP_2.
- Wh-complements/relatives and *wenn* 'if' in CP_2, being modal-flavoured.
- Subjects following Comp in EV3 hosted in CP_1
- In contrast, *weil* in SubP, thereby allowing topicalisation in CP_2 (see also Antomo & Steinbach, 2010).

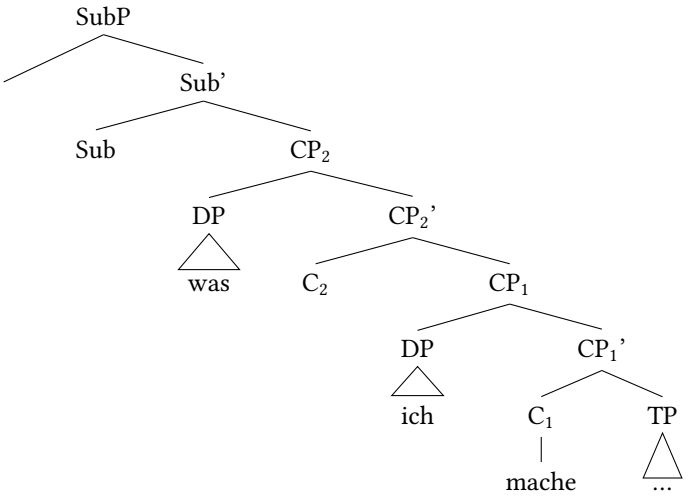
→ Embedded topicalisation with *wh*-complements and *wenn* **ruled out**.

→ Existence of SubP avoids a violation of KRR, which would otherwise arise (McCloskey, 2006).

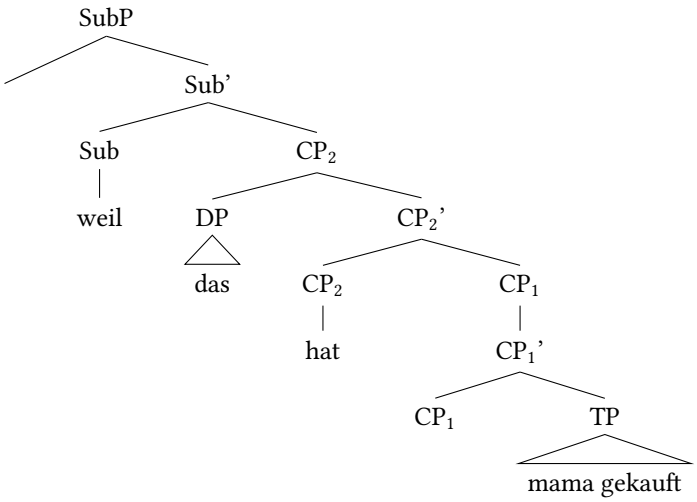
(20) Ich bin da drauf, wenn war ich, war so krank, **wenn habe** *ich* so viel **gesehen**



(21) Guck ma **was** *ich* **mache** jetz!
look once what I make now



(22) **Weil** *das* **hat** mama gekauft in italien



- Co-existing linear EV2/3 down to **optionality in subject/topic raising** → already independently obtains in adult German (Grewendorf, 1989; Diesing, 1992; Haider, 1993) and in acquisition (van Kampen, 2010, 2020).

(Partial) developmental account

***Before* embedding is acquired**

- First, the 'status' of the system, the CP and the knowledge in play *before* embedding is acquired.
- We assume **early development of (some form of) the CP** (like Continuity, inward maturation, i.a.) *pace* bottom-up maturation (cf. Radford, 1990, *et seq.*).
- All 5 children support this (Bosch & Biberauer, to appear): CP-structures available (and frequently produced) from earliest files.

	V2	Wh-Q	Y/N-Q	Top/Foc	Embed
HEL	1;09.11	1;09.11	1;09.11	1;11.00	2;02.18
SIM	2;02.11	2;03.11	2;03.25	2;03.11	3;01.03
AUR	2;10.10	3;05.11	2;10.10	2;10.10	2;11.18
CAR	1;10.08	1;10.08	1;10.08	1;11.12	2;08.21
LUC	2;01.19	2;05.16	2;05.16	2;02.22	2;06.13
LUK	2;03.06	2;03.06	2;03.06	2;04.09	2;05.06
MAR	2;00.16	2;04.16	2;04.16	2;04.16	3;01.27

Table 12: Emergence timings of CP-structures in their Germanic languages.

- Insofar as CP emergent, this **leaves room for subsequent *refining*** of the already-existing structure/features.

↪ We assume then that the child's starting point is a 'basic' (single-projection) CP, à la den Besten (Biberauer & Roberts, 2015). This may then be refined, subject to the left-peripheral structure required by the PLD.

Development of main clauses

- **CP is early acquired** → following Biberauer & Roberts (2015) (among several others, Soares, 2006; Roeper & de Villiers, 2011; Ramchand & Svenonius, 2014), this is initially a *basic* CP.
- Eventually **PLD 'forces' a more expanded (main-clause) CP** → to acquire main-clause phenomena that require more CP-structure.

  - Frame setters, Contrastive Left Dislocation, Hanging Topic Left Dislocation → Haegeman & Greco (2016), particularly exploited in urban vernaculars (Walkden, 2017; Meelen et al., 2020; Sluckin, 2025).

→ That these more articulated CP-structures emerge late has independent support in Germanic but, particularly, in Romance (Soares, 2006; Bosch, 2023; Bosch & Biberauer, to appear).

↪ We therefore propose a *parallel* CP-elaboration process in the embedded CP of these bilinguals – which does *not* obtain in German monolinguals.

Development of embedded clauses

→ **Maximise Minimal Means** (Biberauer, 2019; see also Roberts, 2007): prioritise generalising structures and $[F]$s already in the grammar.

  - Conceivably on the basis of *ignorance* of more complex distinctions: e.g., semantico-pragmatic restrictions on EV2 (Hooper & Thompson, 1973)

→ **Preliminary proposal**: acquirers amplify a regularity of a pattern in the input (V2/3 in main clauses), *boosted by SVO in Italian*, and extend it → integrate main-clause-like structure (expanded CP) in newly-acquired embedded clauses.

↪ Drives CP-internal complexification in ECs.

- Eventual retraction from V-to-C and XP-movement in embedded clauses, in line with Feature Economy.

! Question: How does Ivar's system (Müller, 1996) fit in this account?

Why CP-differentiation

- Provides a developmental rationale for the existence of this EV2 stage, *and* for its formal nature.

→ Connection with work supporting ***crosslinguistically variable* degrees of elaboration of the CP** (Biberauer & Roberts, 2015; Walkden, 2017; Hsu, 2017; Bosch, 2023; Cournane & Klævik-Pettersen, 2023).

- One case study in an (ongoing) **broader research project** → an apparently 'disparate' set of **acquisitional** and **diachronic** patterns, including EV2 overgeneralisation, may fall out from this **'categorial differentiation'** logic.

6 Future directions in diachronic extensions of EV2

Diachronic predictions: later-acquired properties, requiring more complex input, expected to be vulnerable.

- [F]-overgeneralisation may lead to change if acquirers do not retract.

↪ Brief evidence from Germanic varieties influenced by Romance and/or VO languages: **Afrikaans**, **Manenberg Kaaps** and **Cimbrian**[8].

Afrikaans (Biberauer, 2017, 2024)

- **Very contact-influenced**, predominantly by **VO languages** (Portuguese Creole, Malay, English, Bantu, etc.). No major contact language is V2.
- **Strict V2/3 system**, like standard German → resisted change in the outer periphery.
- No 'loss' or 'relaxation' of V2 observed, rather additional ***innovative* V2** options → more change in embedded and other V2 options. w
  - EV2 with *dat*-drop across *all* of Classes A-E (Hooper & Thompson, 1973).

[8] EV2 overgeneralisation also found in the history of Yiddish, and other languages. I set this aside due to time considerations.

  - Embedded *wh*-V2 (unique in Germanic).
  - EV2 with polar interrogatives.

(23) a. Afrikaans

Ek wonder **wat eet** hulle saans (**eet**).
I wonder what eat they evenings eat

'I wonder what they eat in the evenings.'

b. Ek sal uitvind **hoe kom** ons by die gebou in (**kom**).
I shall out.find how come us by the building in come

'I will find out how we (can) get into the building.'

c. Ek weet nie$_1$ **of sal** daar werk vir my wees nie$_1$.
I know not if shall there work for me be POL

'I don't know if there will be work for me.'

(Biberauer, 2017: 80, 91)

- **Manenberg Kaaps** shows a similar distribution (Van Rooi, 2022) – contact-influenced variety of Afrikaans spoken on the Cape Peninsula.
  - Also strict V2/V3, Kiezdeustch-style non-canonical V3 is ungrammatical.
  - *Dat*-drop across all verb classes, like Afrikaans.
  - *Wh*-V2.

→ "Suggests a greater role for L1 speakers in shaping the grammar than sometimes acknowledged (e.g. the 'creole' hypothesis)" (from Biberauer, 2024).

→ "Early shift to Dutch among Khoi and (former) slave populations; L1 Dutch/Afrikaans-speaking communities more diverse than typically acknowledged" (from Biberauer, 2024).

Cimbrian (i.a, Grewendorf & Poletto, 2011; Bidese et al., 2013, 2014)

- Upper German variety in north-eastern Italy, derived from Bavarian. Contact with (Standard) Italian, Venetian and other NIDs (e.g., Trentino).
- **Hybrid** system of complementation: declaratives with either (Germanic) *az/bo* and (borrowed) *ke*, triggering different word order.

→ V2 constraints apply on *ke*, not mere extension of Italian pattern.

- Analysis in terms of Bhatt & Yoon's SubP:

(24) a. [$_{\text{SubordP}}$ **ke** [$_{\text{ForceP}}$ [… [$_{\text{FinP}}$ **Vfin**-CL [$_{\text{TP}}$ [$_{\text{vP}}$ **Vfin**]]]]]]]
b. [$_{\text{SubordP}}$ [$_{\text{ForceP}}$ [… [$_{\text{FinP}}$ **az/bo**-CL [$_{\text{TP}}$ [$_{\text{vP}}$ **mood/Vfin**]]]]]]

(25) a. *NEG* **V**, Cimbrian

I bill **az**-to *nèt* **geast** ka Tria
I want that-you.CL not go to Trento

'I do not want you to go to Trento'

b. **V** *NEG*

I boaz ke **du geast** *nèt* ka Tria
I know that you go not to Trento

'I know you do not go to Trento'

(Bidese et al., 2014: 490)

Outstanding questions

- Why do we not appear to see (as extensive) change in the main clause?
- Which patterns are observed in Germanic-Germanic bilinguals?
- How do we understand partly divergent systems of EV2, e.g., Ivar?
- Bigger sample desirable.
- Why do these bilinguals overlap almost identically with Schönenberger (2001)?
- Why is overgeneralised EV2 also observed in monolinguals of some, but not all, Germanic languages (e.g., Swiss German)?

7 Conclusion and implications

New corpus study on 5 German-Italian bilinguals, and the significance of their overgeneralised EV2.

- **Empirical contribution**: New in-depth quantitative study on the overgeneralisation of EV2 in German-Italian bilinguals, supplementing existing work in (primarily) monolinguals, and bilinguals.
  - Linear V2 and V3 observed.
  - Constraints on EV2 in these bilinguals: Germanic pattern, pre-verbal topicalisation.
  - These do not necessarily (fully) coincide with other reported data (e.g., Ivar), but often suggestively overlap (e.g., Swiss German monolinguals).
- Broad **theoretical question** at stake: how does the CP *change* throughout development?

→ Argued the EV2 data is one example of CP-complexification in development.

- Proposed a *two-fold* analysis of the EV2 stage: (i) a *static* characterisation of the EV2 stage (à la Schönenberger, 2001); (ii) a (partial) *developmental* motivation for (i) (lesser studied bit!).
  - ↪ Consideration of (ii) arguably speaks in favour of (at least partly) emergent structure in these children, over a fully cartographic approach to V2.
- Broader **implications**: diachronic parallels, insights on the typology of (E)V2, role of 'economy' principles in acquisition and change.

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