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## V3 AFTER CENTRAL ADVERBIALS IN GERMAN: CONTINUITY OR CHANGE?\*

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**ABSTRACT** Circumstantial (‘central’) adverbials canonically occupy the topological prefield in German, causing inversion of subject and finite verb. V3 order, with such an adverbial preceding a full V2-clause, is normally excluded in German as a consequence of the (relatively) strict verb-second requirement in that language. However, such orders are attested both in historical as well as modern, particularly urban, varieties. Based on new corpus data and an acceptability study, the present paper will address the question of whether this is a case of diachronic continuity, or whether we are dealing with an innovation and a change in progress.

### 1 INTRODUCTION

A well-described feature of multi-ethnolectal urban varieties of several Germanic V2 languages is the availability of verb-third (V3) orders after circumstantial framesetting adverbials (‘central’ adverbials in the terminology of Haegeman 2003) such as temporal or event modifiers, as in (1) from Kiezdeutsch (‘Hood German’).<sup>1,2</sup>

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1 E.g. by Kotsinas (1998), Ganuza (2008), Quist (2008), Nistov & Opsahl (2014), Freywald, Cornips, Ganuza, Nistov & Opsahl (2015), Wiese & Rehbein (2016), Wiese, Öncü & Bracker (2017), Walkden (2017) and Meelen, Mourigh & Cheng (2020).

2 In the current paper, the finite verb in the associate clause will be underlined, the phrase in the prefield will be set in boldface, and the clause-initial adverbial constituent will be placed in square brackets.

- (1) [JETZ] *ich krieg immer ZWANzig euro*  
 now I get always twenty euros  
 ‘Now, I always get 20 euros.’  
 [KiDKo MuH17MA]

Canonically, such adverbials occupy the topological prefield in German, as a consequence of the (relatively) strict verb-second requirement in that language, causing inversion of subject and finite verb.

Recently, however, it has been observed for German that contrary to previous assumptions in the literature, such patterns are not in fact restricted to the multi-ethnolectal Kiezdeutsch, but are also attested in spoken monolingual German (2) (Schalowski 2015, Wiese & Müller 2018, Breitbarth 2022),<sup>3</sup> and can even be elicited in written production (Wiese et al. 2022).<sup>4</sup>

- (2) [*im Gehirn*] *das Sprachverstehen ist wechselseitig*  
 in.the brain the language.comprehension is bilaterally  
*organisiert*  
 organised  
 ‘In the brain, language comprehension is organised bilaterally.’  
 [BSa-Sch:3]

Following Haegeman (2019), I will call this type of V3 *non-inverted V3*, to reflect that (a) the adverbial should canonically trigger inversion of subject and finite verb to occur in the pre-field, and that (b), typically, the subject precedes the finite verb in this pattern, as also noted by e.g. Bunk (2020: 24) and Wiese et al. (2022: 7).

Concerning the frequency of this word order, Wiese & Rehbein (2016: 57) mention that it is found in 126 of 19,324 declarative main clauses (0.65%) in the multiethnic part of the Kiezdeutschkorpus (Wiese, Freywald, Schalowski & Mayr 2012), KiDKo/Mu. For standard-oriented German, the frequency is as yet unclear; for the monolingual part of the Kiezdeutschkorpus (KiDKo/Mo), Wiese & Rehbein (2016: 57) report just two occurrences in 8065 matrix declaratives, i.e., 0.02%, but this being informal youth language, it may not be representative for spoken German more generally. Based on earlier corpus studies, which did not produce cases of V3 after central adverbials in a small corpus of 1889 root clauses, Speyer (2008: 474) estimates that the frequency

<sup>3</sup> I use the term ‘monolingual’ in the sense of Wiese, Alexiadou, Allen, Bunk, Gagarina, Iefremenko, Martynova, Pashkova, Rizou, Schroeder, Shadrova, Szucsich, Tracy, Tsehaye, Zerbian & Zuban (2022) here.

<sup>4</sup> The data in (2) are from the dataset (“BSa-Sch”) reported in Schalowski (2015).

should be at least below 0.05%, but likely lower: the example in (3) being the only one of its kind in the book it is taken from,<sup>5</sup> which Speyer (2008: 457) estimates to contain c. 6000 declarative main clauses, would suggest a frequency of 0.016%, which would in fact be in line with the observations of Wiese & Rehbein (2016) on the distribution in KiDKo/Mo.

- (3) [In Züpfners Box] *der Mercedes bewies, dass Züpfner zu Fuß gegangen war*  
in Züpfner's box the Mercedes proved that Züpfner by  
foot gone was  
'The Mercedes in Züpfner's box proved that Züpfner had walked on foot.'

(Heinrich Böll, *Ansichten eines Clowns*; from Speyer 2008: 456)

The (elicited) data in Wiese et al. (2022) point to an availability in different registers (formal/informal) and modes (spoken/written) in monolingual German in even 0.41% of “communicative units” (defined as “independent clause with its modifiers”).<sup>6</sup>

V3-orders after circumstantial/central adverbials have also been observed in historical varieties of German (4) (Axel 2002, Speyer 2008, Donhauser & Petrova 2009, Catasso 2021).

- (4) (a) *ex tempore antequam fieret ibi eram*  
*endi [aer huuil uurdi], ih uuas*  
and before time become.SUBJ.PRET.3SG I be.IND.PRET.1SG  
*dhar*  
there  
'and before time existed, I was there'

(OHG Isidor 19, 7–8, from Catasso 2021: 22)

<sup>5</sup> To be sure, the initial PP in (3) has even narrower scope than a regular circumstantial adverbial in that does not modify the proposition of the associate clause, but only the subject DP. Still, it is not a peripheral adverbial, and Speyer gives arguments for the two constituents having moved independently from each other to the left periphery.

<sup>6</sup> This very high frequency seems to be mainly due to the frequent use of *dann* ‘then’ in initial position, which is probably a consequence of the elicitation method, requiring participants to recount a car accident scene previously presented in a video stimulus. In such contexts, *dann* is often used as a connector akin to *erstens*, *zweitens*, *außerdem* ‘first, second, besides’, which belong to a class of connectors that are known to be able to precede fully-fledged V2 clauses in what Pasch, Brauße, Breindl & Waßner (2003) call the *Nullposition* ‘null position’. It is therefore not so clear whether *dann* is always a temporal adverbial, rather than a connector.

- (b) [*Und da es umb die mitnacht kam*], *der*  
 and when it around the midnight came the.GEN  
*sarganten eyner was offgestanden*  
 sergeants one was gotten.up  
 ‘And when the time neared midnight, one of the sergeants had gotten up.’  
 (ProLa II 151,3, from [Axel 2002](#): 6)

The attestation in new multi-ethnolectal urban varieties has led to the assumption that this kind of V3 after circumstantial/central adverbial frame-setters is the result of language contact (cf. e.g. [Hinrichs 2013](#), [Walkden 2017](#), [Meelen et al. 2020](#)).<sup>7</sup> With evidence from monolingual as well as historical data as in (2) or (4) coming into view, however, the question arises whether this word order is not rather a grammatical option that has always been available in (spoken) language, and was only marginalised by the stricter V2-requirement of more formal or written language. Comparing data from Old, Middle and Early New High German with present-day Kiezdeutsch as well as spoken monolingual German cases like (2), [Demske & Wiese \(2016\)](#) therefore hypothesise that

Die Mehrfachbesetzung der linken Satzperipherie ist möglicherweise nie verloren gegangen, sondern hat mit der Etablierung von V2 zwar stark an Häufigkeit eingebüßt, könnte aber als eine mögliche Option im informellen Sprachgebrauch erhalten geblieben sein [...].<sup>8</sup>  
 ([Demske & Wiese 2016](#): 235)

It is the aim of the current paper to re-evaluate this hypothesis for one particular type of multiply filled prefield, the V3 orders after central adverbials exemplified above, based on a literature study, new historical and contemporary data, as well as an acceptability study, and argue that historical continuity is less probable in German, and that rather, the recently noted attestation in spoken German is likely to be the consequence of a syntactic change in progress.

<sup>7</sup> But see [Wiese et al. \(2017\)](#) for arguments against a transfer from source languages, and [Wiese et al. \(2022\)](#) for a systematic study emphasising the role of register for the use of V3. Lack of direct transfer or imposition is still compatible with a contact-induced change, cf. [Walkden & Breitbarth \(2019\)](#) for possible scenarios whereby the result is not necessarily transfer from any of the input languages.

<sup>8</sup> ‘The multiple filling of the clausal left periphery was possibly never lost. While it became less frequent with the establishment of V2, it may have survived as a possible option in informal language use.’

## 2 THE SYNTAX OF NON-INVERTED V3

Central adverbials modify the proposition of the associated clause and therefore have the status of a constituent of that clause (Haegeman 2003, 2009, 2012). Examples are temporal clauses or adverbs, event conditionals, or locative adverbs. In present-day German, central adverbial clauses can canonically occur either in the prefield of a V2 clause, or with a resumptive in the prefield (5a). In both cases, as the prefield is occupied by the adverbial or the resumptive, the subject follows the finite verb. This inversion is compulsory in the standard language (5b). Non-sentential central adverbials are restricted to the prefield in present-day standard German, resumption is degraded (5c), inversion is compulsory (5d).

- (5) (a) [*Wenn der Schiedsrichter pfeift*], (*dann*) geht *das*  
 when the referee whistles RES goes the  
*Fußballspiel los.*  
 football match PRT  
 ‘When the referee blows the whistle, the football match will start.’
- (b) \* [*Wenn der Schiedsrichter pfeift*], *das Fußballspiel*  
 when the referee whistles the football match  
geht *los.*  
 goes PRT  
 ‘When the referee blows the whistle, the football match will start.’
- (c) [*In fünf Minuten*] (*?da/??dann*) geht *das Fußballspiel*  
 in five minutes RES goes the football match  
*los.*  
 PRT  
 ‘In five minutes, the football match will start.’
- (d) \* [*In fünf Minuten*], *das Fußballspiel* geht *los.*  
 in five minutes the football match goes PRT  
 ‘In five minutes, the football match will start.’

In many ways, resumption as in (5a) and marginally (5c) resembles German Left Dislocation, which is generally not considered a violation of the V2 constraint (Altmann 1981), as the left-peripheral adverbial and the associate clause form one intonational unit, and have a common focus-background-structure.<sup>9</sup>

<sup>9</sup> For conditional clauses in German, the similarity between central conditionals and German

It should be noted that there are several apparent deviations from strict V2 order in German that are not usually considered violations of the V2 constraint, such as Hanging Topics, German Left Dislocation, and apparently multiply filled prefields ('scheinbare mehrfache Vorfelddbesetzung', Müller 2005), whereby a headless VP is fronted as a whole, preserving the middle field order of constituents. Also focus and topic particles can occur in the prefield, and discourse markers, utterance commenting, or speech-act adverbials regularly precede it,<sup>10</sup> as do peripheral adverbial clauses (Frey 2011). Here, it is important to distinguish between the linear order of constituents, which may make the verb appear to occur in a later position, and verb movement to C, or to one of the heads within a more fine-grained clausal left periphery and the fronting of phrasal constituents to a specifier in the C-domain. In principle, any finite verb movement to a head in the C-domain and concomitant preposing of one phrasal constituent to a specifier in the C-domain preceding the landing site of the finite verb will be considered verb second, regardless of the amount of internal structure assumed to be contained within this domain, as e.g. under a more cartographic analysis. For instance, in order to accommodate syntactically, prosodically, and information-structurally distinct topics, Frascarelli & Hinterhölzl (2007) propose an update (6b) of Rizzi's (1997) proposal for such a more fine-grained structure (6a), with separate positions for aboutness-shift, contrastive, and familiar topics. In a similar fashion, Speyer (2008) proposed the hierarchy in (6c), on which Petrova (2012) builds further for her analysis of Middle Low German multiple XP placement in the clausal left periphery. Note that frame- or scene-setting adverbials would be located inside the extended CP-domain under this analysis. This analysis is not universally accepted; many studies of the clausal left periphery place framesetters outside the highest projection of the clausal C-domain, ForceP, along with focus particles, hanging topics, discourse markers, and peripheral adverbials, (6d) (a.o. Poletto 2002: 235, Benincà & Poletto 2004: 66, Haegeman 2006: 1662–3, Haumann 2007: 277, Wolfe 2020: 362).<sup>11</sup>

Left Dislocation has also been noted by Ebert, Ebert & Hinterwimmer (2014). Under current assumptions, the resumptive spells out an intermediate trace (in SpecFinP) of the movement of the left-dislocated phrase to the left periphery from inside the clause (Grewendorf 2002). Peripheral adverbials, which will not be considered in the current paper, behave differently: they occur outside fully fledged illocutionarily independent V2-clauses, and are not prosodically integrated into the associate clause. Again for peripheral conditional clauses (e.g. so-called relevance, or biscuit, conditionals (Austin 1961), Ebert et al. (2014) consequently argue for an analysis in terms of German Hanging Topics.

<sup>10</sup> See e.g. Schalowski (2015) and Catasso (2015, 2022) and literature cited therein.

<sup>11</sup> Of course, the main goal of Speyer (2008) is to give an account of (historical) German V2 (and only marginally V3) as triggered by competing information-structurally motivated constraints. In most cases in both historical and present-day German, framesetters do seem to move to a

- (6) (a) ForceP > TopP\* > FocP > TopP\* > FinP  
 (Rizzi 1997: 297)
- (b) ForceP > ShiftP > ContrP > FocP > FamP\* > FinP  
 (Frascarelli & Hinterhölzl 2007)
- (c) ForceP > SceneP > FocP > TopP > FinP > IP  
 (Speyer 2008)
- (d) FrameP > ForceP > TopP > FocP > FinP > IP  
 (Wolfe 2020)

Generally, even if a more cartographic approach is taken, where different features project their own heads and can attract phrases with corresponding feature to their specifiers, it is assumed that there is some kind of bottleneck effect that prevents more than one phrase from accessing the (extended) left periphery by movement from the middle field, either because the movement of one phrase prevents the movement of all eligible (in terms of features) others, or because in a strict V2 variety several or all features are expressed on one syncretic head.<sup>12</sup> The latter approach is for instance taken by Walkden (2017) in order to distinguish between languages like Standard German and Germanic varieties exhibiting non-inverted V3 after central adverbials, such as Kiezdeutsch. While in Standard German, all features that might cause phrasal movement to the left periphery are conflated in one C-head, Walkden proposes that in a language like Kiezdeutsch, a lower head  $C_1$  conflates the features of Frascarelli & Hinterhölzl's Fin and Fam, whereas a higher head  $C_2$  encompasses the features of Foc, Contr, Shift, and Force. By this, Walkden can analyse the non-inverted V3 orders in Kiezdeutsch as the central adverbial framesetter occupying  $CP_2$ , while a discourse-old topic (typically a subject pronoun) occupies the specifier of  $CP_2$ , as shown in (7).

- (7) [ $CP_2$  *morgen*  $C_2$  [ $CP_1$  *ich* [ $C_1$  *geh'*] [ $TP$  ... *arbeitsamt* ... ]]]  
 tomorrow I go job centre  
 'Tomorrow, I go to the job centre.'  
 (after Walkden 2017: 92 (his (24)))

Walkden (2017: 64) stipulates two restrictions: First, adverbials, unlike arguments, can be merged directly in the clausal left periphery, and do not need to be moved from within TP. Secondly, Walkden assumes that maximally one

position within the C-domain, causing inversion.

12 Cf. Giorgi & Pianesi's (1997) *feature scattering* vs. *feature syncretism*.



phrase can reach the left periphery by movement, which derives the classical bottleneck effect. This way, he can prevent overgenerating simultaneous *wh*-movement to SpecCP<sub>2</sub> and fronting of a subject to SpecCP<sub>1</sub>.

An alternative proposal has been made by Wolfe (2015, 2020). In order to capture the difference between strict V2-languages (such as Standard German, (8b)) and non-strict V2-languages (such as some Medieval Romance languages, (8a)), he argues that the finite verb moves to higher or lower positions in the left periphery, distinguishing between Force-V2 (=stricter) and Fin-V2 (=less strict) languages. In a language where the finite verb only moves to Fin, there are potentially more specifiers available in front of the finite verb which can be filled by movement or direct merger.

- (8) (a) Non-strict V2 (V-to-Fin)  
 [Frame (HT, Adv<sub>SceneSetting</sub>) [Force [Topic (Topic) [Focus (XP) [Fin [Fin° V<sub>fin</sub>] [TP ]]]]]]]
- (b) Strict V2 (V-(to-Fin-)to-Force)  
 [Frame (HT, Adv<sub>SceneSetting/SpeakerOriented</sub>) [Force XP [Force° V<sub>fin</sub>] ... ]]
- (adapted from Wolfe 2020: 362)

It is an empirical question which of these proposals can most adequately capture the observed patterns. Haegeman & Greco (2018) and Greco & Haegeman (2020) for instance observe for Standard Dutch and West Flemish that they almost completely overlap in the available word orders in the clausal left periphery, with the exception of non-inverted V3-orders after central adverbial framesetters, which are only available in West Flemish. V3 orders with such adverbials *are* to some extent possible in Standard Dutch, but only if the associate clause is a question, an imperative, or has a contrastive argument before the finite verb, forcing inversion of subject and finite verb (9). This points to these adverbials being situated outside ForceP; as the independent illocutionary force of (9a), (9b) and (9c) points to the associate clause being a full ForceP (cf. also Wolfe 2015). Also the presence of contrastive arguments points to at least a larger left periphery than just FinP following the initial adverbial phrase.

- (9) (a) [*Als er morgen een probleem is*], *wie moet ik*  
 if there tomorrow a problem is who should I  
*eerst contacteren?*  
 first contact  
 ‘If there is a problem tomorrow, who should I contact first?’



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- (b) [*Als er morgen een probleem is*], kan ik je (dan)  
 if there tomorrow a problem is can I you then  
*nog bellen?*  
 still call  
 'If there is a problem tomorrow, can I still call you (then)?'
- (c) [*Als het te koud wordt*], zet de verwarming maar  
 if it too cold becomes switch the heating PRT  
*aan!*  
 on  
 'If it becomes too cold, do switch on the heating!'
- (d) [*Als je haar iets vraagt*], nooit antwoordt ze  
 if you her something ask never answers she  
*op tijd.*  
 on time.  
 'If you ask something to her, she never answers on time.'
- (e) [*Als er een probleem is*], MIJ moet je niet bellen  
 if there a problem is me must you not call  
 'If there is a problem, you should not call ME.'  
 (from [Greco & Haegeman 2020](#): 84–5)

Besides, they observe based on a number of phenomena such as lack of reconstruction or low temporal construal that also in non-inverted V3 orders in West Flemish, the adverbial constituent must be merged outside the clause (=ForceP), and cannot have moved from the middle field. (10) exemplifies the kind of tests used by [Greco & Haegeman](#).

- (10) (a) [*Oan=k toekwamen*] was den eletriek utgevallen.  
 when=I arrived was the electricity out fallen  
 'When I arrived, there was a power failure.'  
 High construal: There was a powercut before the arrival.  
 Low construal: The power cut happened at the moment of arrival.
- (b) [*Oan=k toekwamen*] den eletriek was utgevallen.  
 when=I arrived the electricity was out fallen  
 'When I arrived, there was a power failure.'  
 High construal: There was a powercut before the arrival.  
 \*Low construal  
 (from [Greco & Haegeman 2020](#): 72)

They conclude that all Dutch varieties are in fact Force-V2 languages, stipulating that the position of the subject is what counts for determining whether the V2-property of a language is located in Force or Fin, and that the difference lies in the fact that in West Flemish, the finite verb also moves to Force°, while in Standard Dutch, it stays below, in Fin°. The ‘central’/circumstantial interpretation as modifying the matrix proposition depends on the adverbial being in a strictly local relationship with the carrier of a situational (temporal, modal, ...) variable normally encoded in functional projections of the TP domain. Greco & Haegeman (2020: 83) propose that the finite verb can carry this variable into the CP-domain, but only if the verb moves to Force° will it be in a sufficiently local relation to the circumstantial adverb in FrameP, (11).

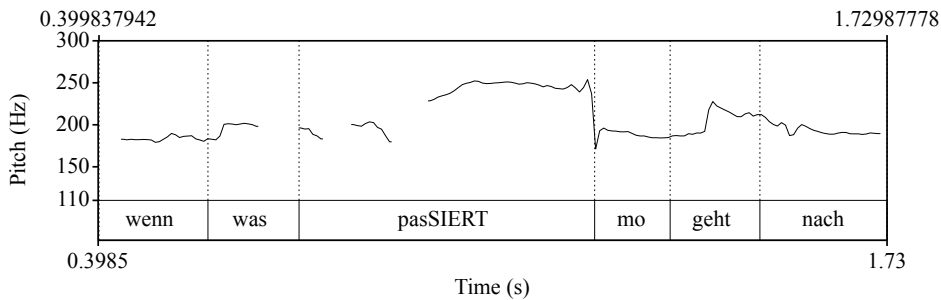
$$(11) \text{ (a) } [_{\text{FrameP}} \text{XP}_i [_{\text{Frame}^\circ} ] [_{\text{ForceP}} (\lambda_{V_i}) [_{\text{TP}} \dots ]]] \quad \sim (10 \text{ a})$$

$$\text{ (b) } *[_{\text{FrameP}} \text{XP}_i [_{\text{Frame}^\circ} ] [_{\text{ForceP}} [_{\text{YP}} \dots [_{\text{TP}} \dots (\lambda_{V_i}) \dots ]]]] \quad \sim (10 \text{ b})$$

For spoken standard-oriented monolingual German, Breitbarth (2022) discusses non-inverted V3 in audio data collected from public radio interviews, showing that besides lack of reconstruction (as in the West Flemish data discussed by Haegeman & Greco 2018 and Greco & Haegeman 2020) the prosodic properties of spontaneously attested data also point to a CP-external merger. Her data show a consistent pattern: While the intonation signals the intention to continue speaking, and a following pause, if present at all, can be extremely brief, the initial adverbial phrase is clearly prosodically independent from (not integrated) into the associated clause.<sup>13</sup> (12) and Figure 1 illustrate this for one of her examples.

13 Bunk & Rocker (2022) show for a larger dataset from different German varieties (monolingual, bilingual, and heritage German, both elicited and spontaneous data) that this observation by and large holds more generally, except for initial *dann* ‘then’, which behaves significantly differently, tending to occur without any prosodic boundary marking. However, they state that *dann* is often used as a discourse marker or linker (cf. also Schalowski 2017). Cf. also the remarks in fn. 6 above on the possibility that *dann* might be developing into a connector preceding full V2 clauses, structuring lists of events when recounting them. Bunk (2020) acknowledges the fluidity of *dann*’s function, but insists on treating it on a par with central adverbials in V3 orders, regardless of whether it is a discourse marker. Crucially, unlike central adverbials, discourse markers cannot be analysed as having moved from inside the clause, and cannot cause inversion without losing their discourse marker interpretation. There are also indications that they do not compete for the same position as central adverbials in non-inverted V3-sentences, as they can precede the latter and indeed do not need to be followed by a prosodic boundary in that function, as discussed for other discourse markers by Breitbarth (2022: 18–19). While it cannot be excluded that some instances of temporal (=central adverbial) *dann* can be found in non-inverted V3, like other central adverbials, it is important to bear in mind that *dann* may require a different analysis from central adverbials in non-inverted V3 sentences.

- (12) [*wenn was passiert*], *man geht nach Connewitz*  
 if something happens one goes to Connewitz  
 ‘If something happens, one goes to Connewitz.’  
 (Deutschlandfunk, Wochenendjournal “Freie Radikale –  
 Linksextreme Gewalt in Leipzig-Connewitz”, interview with Karin  
 Wöbbeking (police sergeant), 2020/10/10)



**Figure 1** Continuation rise and fast progression at the prosodic boundary (‘schneller Anschluss’) with subsequent resetting of the intonation curve in (12) (Breitbarth 2022)

She also shows that Walkden’s (2017) analysis, under which the adverbial constituent occupies  $CP_2$  and the subject occupies  $CP_1$ , which syncretizes the features of Frascarelli & Hinterhölzl’s (2007) FinP and FamP, makes the wrong predictions for the German data. If that analysis were on the right track, one would expect that subjects in non-inverted V3 orders should be either discourse-old pronominal subjects (= typical FamP-elements) or impersonal pronouns and prefield-expletives (= typical FinP-elements). While such cases exist in the data Breitbarth (2022) discusses, for example (13a), the subjects are in many cases syntactically complex phrases expressing new information, as in (13b), and would therefore be elements that should occupy Walkden’s Spec $CP_2$ .

- (13) (a) [*Heute*], *man* *schließt* *dann gleich* *Pakistan aus*,  
 nowadays one excludes then immediately Pakistan PRT  
*und das wäre falsch*  
 and that would be wrong  
 ‘Nowadays, one immediately excludes Pakistan, and that would be wrong.’  
 (Deutschlandfunk Nova, “Deep Talk”, interview with Christopher Kloeble (author), 2020/03/04)
- (b) *Also [bei uns in Schleswig-Holstein], die ersten*  
 well with us in Schleswig-Holstein the first  
*Impftermine* *in den Impfzentren* *sind*  
 vaccination.appointments in the vaccination.centres are  
*bereits ausgebucht*  
 already booked.up  
 ‘Well, in our state of Schleswig-Holstein, the first vaccination appointments in the vaccination centres are already booked up.’  
 (Deutschlandfunk, “Informationen am Mittag”, interview with Christine Aschenberg-Dugnus (FDP), 2020/12/29)

It can be concluded that for the data from present-day spoken German investigated by Breitbarth (2022), an analysis along the lines proposed by Haegeman & Greco (2018) and Greco & Haegeman (2020) suggests itself for those speakers who can produce these orders. That is, the adverbial constituent would be situated outside the ForceP of the V2-clause, and the ‘central’ interpretation of the adverbial would be the result of verb movement to Force° in those cases.<sup>14</sup> Canonically, the finite verb would stay in Fin° in subject-initial V2 clauses. We return to the formal analysis below.

The question we want to address in the current paper is, has this possibility already been available in historical stages, and is it possible to speak of a diachronic continuity, as suggested by Demske & Wiese (2016)? In case there is no such continuity, a further question is exactly what has changed.

<sup>14</sup> In the canonical order *with* inversion after a central adverbial, an analysis as proposed by Catasso (2022) is plausible, according to which the central adverbial is moved to the left periphery from the middle field.

### 3 HISTORICAL HIGH AND LOW GERMAN: STATE OF THE ART

As alluded to above, non-inverted V3 orders after central adverbials are found in historical varieties of German (cf. (4)). Various studies have addressed this to different degrees. Many of them are not restricted to central adverbial clauses in the left periphery, but also consider peripheral ones (e.g. [Axel 2002](#)), others look at multiply filled prefields involving different kinds of constituents, not restricted to (central) adverbials (e.g. [Speyer 2008](#), [Speyer & Weiß 2018](#), [Petrova 2012](#), [Catasso 2021](#)). In those studies considering left-peripheral adverbial clauses, the general observation is that diachronically, they increasingly become integrated into their associated matrix clauses, typically via a stage in which there is a resumptive element (cf. also [König & van der Auwera 1988](#), [Raible 1992](#)).<sup>15</sup> Studies looking at prefields filled by multiple different types of constituents also find an increasing strictness of the V2-requirement, at least w.r.t. the possibility of non-inverted V3. In the current section, we review a number of these studies with an eye on possible arguments for diachronic continuity.

[Axel \(2002\)](#) looks at the syntactic integration of adverbial clauses at the left periphery of the associated matrix clause in historical German, considering both central and peripheral adverbial clauses ([Axel 2002](#): 2, fn. 2). She finds that initial adverbial clauses do not occur in the topological prefield of their associated clause in High German until the late 15<sup>th</sup> century, showing either V3 orders as in (4) (14–53% of the cases), or resumption by *so* (up to 37–78%), (14). [Thim-Mabrey \(1997](#): 199) finds that initial adverbial clauses in her Early New High German (ENHG; 1350–1650) corpus are followed by resumptive/correlative *so* even in 82% of the cases.

- (14) [*Und ee dann ir hinweg rytent,*] *so sagen ich uch*  
 and before then you away ride so tell I you  
*vor allen rittern ...*  
 before all knights  
 ‘And before you then ride off [so] I will tell you before all knights ...’  
 (ProLa II 180,26; from [Axel 2002](#): 8)

[Speyer \(2008\)](#) and [Speyer & Weiß \(2018\)](#), who look at all kinds of multiply filled prefields, not just initial adverbial clauses, find that ENHG texts vary

<sup>15</sup> The term “integration” reflects [König & van der Auwera’s 1988](#) use of the term as linearly occupying the prefield followed by the finite verb, triggering subject-verb inversion (“If a clause is followed by the finite verb of another, the former can generally be taken to function as a constituent within the other”, [König & van der Auwera 1988](#): 102). Note that [König & van der Auwera](#) do not only consider central conditional clauses, but also concessive conditionals and concessives.

regionally and diachronically (but perhaps also only individually, given that only one text per period and region is considered), showing between 0.61% and 3.85% multiply-filled prefields of all declarative main clauses. [Catasso \(2021\)](#), in a similar study of four kinds of multiple prefields in Middle High German (MHG; c. 1050–1350) and ENHG, finds between 0.5% and 6% in the texts he considered, and concludes based on the fact that all types are continuously attested that at least for MHG and ENHG there is a diachronic continuity. However, it is not possible to tell from his data how frequent non-inverted V3 after circumstantial/central adverbials is in his data (his type 4c), and whether the diachronic continuity extends into younger stages of German, particularly for this type.<sup>16</sup>

[Donhauser & Petrova \(2009\)](#) and [Battefeld \(2010\)](#), looking at MHG and Middle Low German (MLG; c. 1200–1600), restrict themselves to one type of central adverbial clauses, viz. temporal clauses. In the two MLG texts [Donhauser & Petrova \(2009\)](#) consider, one from the beginning of the period (*Sächsische Weltchronik*) and one from the end (*Ludolfs von Sudheim Reise ins Heilige Land*), they find that next to inversion after the adverbial clause and the presence of a resumptive element in the prefield of the associate clause, both of which induce inversion of subject and finite verb, MHG and MLG also allow the lack of inversion of subject and finite verb. In both texts, V2 order with the finite verb directly following the initial temporal clause only plays a very marginal role (0.93% in the *Sächsische Weltchronik* and 1.54% in *Ludolf*), while non-inverted V3 is mainly characteristic of the older text (SW: 81.3%, *Ludolf*: 4.62%) and resumption more characteristic of the younger text (SW: 17.76%, *Ludolf*: 93.85%).<sup>17</sup>

[Speyer \(2008\)](#) finds that in most cases in the ENHG texts he looked at, multiple prefields are in fact what we call non-inverted V3 orders here: the first element is a framesetting adverbial phrase, a PP or a CP, while the second is a nominative NP. In present-day German, on the other hand, the main patterns are either [Müller \(2005\)](#)-style “apparent” multiple prefields with a fronted headless VP, or focus particles preceding a subject, suggesting a profound change having taken place over the last 500 years (cf. [Speyer 2008](#): 483).

Summing up, studies on left peripheral (central) adverbials in historical High and Low German suggest a drastic diachronic decrease in V3 structures,

16 Some of the types he considers, such as postinitial connectors or focus particles in the left periphery, are still possible in present-day German.

17 [Petrova \(2012\)](#) takes into account more MLG texts, considering, like [Speyer \(2008\)](#), [Speyer & Weiß \(2018\)](#) and [Catasso \(2021\)](#), all forms of multiply-filled prefields, including non-inverted V3 after left-peripheral central adverbials. However, she only reports absolute numbers of occurrences. It is therefore difficult to assess the frequency of non-inverted V3 after central adverbials in her MLG corpus.

and an increase in, first, structures where the prefield of the associate clause is filled by a resumptive, causing subject-verb inversion, and second, structures with the adverbial clause in the prefield followed by subject-verb inversion. If, then, non-inverted V3 orders should have survived outside of written texts, in the spoken language, as suggested by [Demske & Wiese \(2016\)](#), one would expect stable variation in spoken utterances, i.e. similar frequencies as in the 17<sup>th</sup> century. Furthermore, this being a marginal pattern throughout the history of German, one would expect a specific sociolinguistic distribution in the use of the pattern if it were a case of stable variation. We return to this point in Section 5, after adding new data on one historical variety for which there already is a parsed corpus in Section 4.

#### 4 MIDDLE LOW GERMAN: NEW DATA

To supplement the existing studies on the (non-)integration of central adverbial clauses in historical High and Low German, and to also include non-sentential central adverbials, the use of a parsed corpus is highly preferable, because this makes it possible to search for both sentential and nonsentential adverbials. At the moment, there are only two syntactically parsed corpora of historical varieties of German available, the Corpus of Historical Low German (CHLG) ([Booth, Breitbarth, Ecay & Farasyn 2020](#)),<sup>18</sup> which parses a selection of texts from the *Referenzkorpus Mittelniederdeutsch/Niederrheinisch (1200–1650)* (ReN),<sup>19</sup> and the *Referenzkorpus Frühneuhochdeutsch: Baumbank.UP* ([Demske 2019](#)), which parses a selection of the texts from the *Referenzkorpus Frühneuhochdeutsch* (ReF).<sup>20</sup> Both corpora use a constituent-based parsing scheme (as opposed to a dependency-based scheme). The CHLG uses the parsing scheme of the Penn Parsed Corpora of Historical English,<sup>21</sup> the Baumbank.UP follows the TIGER-scheme ([Albert et al. 2003](#)).

As more is known about the distribution and frequency of non-inverted V3 in ENHG (see Section 3 above), while there is very little information on MLG,<sup>22</sup> the CHLG was searched for sentence-initial adverbial constituents either immediately followed by the finite verb in the associate clause, or with a constituent intervening between the adverbial constituent and the finite verb. With an eye on [Demske & Wiese's \(2016\)](#) hypothesis, viz. that V3 may have

18 <https://www.chlg.ugent.be>

19 <https://www.slm.uni-hamburg.de/ren/>

20 <https://www.ruhr-uni-bochum.de/wegera/ref/index.htm>. Caitlin Light's Penn-parsed version of Luther's Septembertestament no longer seems to be accessible.

21 <https://www.ling.upenn.edu/hist-corpora/annotation/index.html>

22 [Donhauser & Petrova \(2009\)](#) only consider two MLG texts, [Petrova \(2012\)](#) does not give relative frequencies.



survived the fixation of V2 in the spoken language, it is necessary to differentiate sources by genre, even though hardly any MLG text is particularly close to spoken register.<sup>23</sup> Therefore, the texts in the CHLG were grouped into two rough text types comprising several more specific genres, viz. “legal” and “non-legal” texts. The former category unites laws, charters, contracts, and the like. The latter comprises literary, religious and scientific texts as well as ego-documents (private letters). Because of the structure of the corpus, reflecting the transmission situation, there are more legal texts from the first half of the MLG period (c. 1200–1400), and more non-legal texts from the second half of the period (c. 1400–1600), such that unfortunately, there is a certain correlation between genre and period.<sup>24</sup> There are different types of multiply filled prefields in the texts in the CHLG, confirming the types described by Petrova (2012) for her MLG corpus (cf. Booth, Breitbarth & Farasyn to appear). For the current paper, we focus on V3 after central adverbials, as in (15).

- (15) [DO Albert stur starf] *sin eldeste sone nam sin herwede.*  
 when Albert Stur died his eldest son took his arms  
 ‘When Albert Stur died, his oldest son inherited his arms.’  
 (Herforder Rechtsbuch 1375)

As Table 1 shows, non-inverted V3 after central adverbials is extremely rare in the corpus, in both groups of genres, but it is only half as frequent in non-legal texts, which tend to be younger and at least potentially less formally written.<sup>25</sup> It is important to also bear in mind that V3 after central adverbials only occurs in four individual texts in the CHLG. The frequency in these texts

<sup>23</sup> The ReN, on which the CHLG is based, also contains popular comical plays such as “Teweschen Hochtied”, where more language of proximity (Koch & Österreicher 1985) may be expected, but these texts are not (yet) parsed and integrated into the CHLG. The annotation of the ReN makes it very difficult to search these texts for constructions with adverbial constituents in the first position of a main clause. One could, as one reviewer suggests, search for an adverbial (AVD) at the left boundary of a sentence (`bound_sent`), followed by a nominative noun, determiner, or pronoun. However, this would only return single word adverbials, and exclude any more complex phrasal ones. For clausal adverbials, which would form their own `bound_sent` unit, the reviewer suggests looking for resumptive pronouns at the left boundary of sentences. Unfortunately, this would not help in finding inversionless cases. It therefore had to be decided not to use the ReN.

<sup>24</sup> The same skew is also present in the ReN.

<sup>25</sup> To be sure, the two texts Donhauser & Petrova (2009) considered, i.e., the *Sächsische Weltchronik*, where they found particularly many cases of CP<sub>temp</sub> with non-inverted V3, but also Ludolf von Sudheim’s travelogue, are not part of the CHLG. The relative frequency is here estimated as percentage of IP-MAT, i.e., main clauses in the parsed corpus, not as percentage of IP-MAT-initial central adverbials.

ranges between 0.24% and 0.38% of all root clauses in three of them,<sup>26</sup> and is much less frequent in the fourth.<sup>27</sup> That is, considering the CHLG globally, there is a diachronic decrease of non-inverted V3 as also observed in other diachronic studies (cf. section 3), but there is also enormous individual variation between texts, and in most texts it is not attested at all. This should be borne in mind when considering the question of whether there is diachronic continuity regarding this word order in German.

Text	XP–Su–Vf	partial res.	Total IP-MAT
Legal texts, charters, contracts etc.			
Braunschweiger Stadtrecht 1279	0	0	132
Braunschweiger Urkunden 1301–1500	0	0	110
Rüthener Statutarrecht 1300	0	5	265
Soester Schrae 1367	1	0	262
Herforder Rechtsbuch 1375	2	2	830
Bremer Urkunden 1300–1350	0	0	48
Oldenburger Urkunden 1300–1530	0	0	231
Stralsunder Urkunden 1301–1500	0	0	314
Greifswalder Bürgersprache 1451	0	6	148
Schweriner Stadtbuch 1451–1500	0	0	327
Rostocker Bürgersprache 1580	0	0	44
<b>Gesamt</b>	<b>3</b>	<b>13</b>	<b>2711</b>
Literary/religious/scientific texts, egodocuments			
Engelhus, Chronica 1435	0	2	1532
Abdinghofer Arzneibuch 1451–1500	1	1	1770
Buxtehuder Evangeliar 1451–1500	0	2	2038
Griseldis 1502	2	0	537
Agneta Willeken 1535	0	1	188
<b>Total</b>	<b>3</b>	<b>6</b>	<b>6065</b>

**Table 1** Non-inverted V3 and partial resumption in the CHLG

As the third column in Table 1 shows, there is another V3-like type of word order pattern, which is slightly more frequent than plain V3 after central adverbials in the corpus. This pattern is exemplified in (16).

- (16) [*so wenne de geyst Der warheyt comet*] *de scal iu*  
 whenever the spirit the.GEN truth comes the shall you  
*leren alle warheyt*  
 teach all truth  
 ‘Whenever the spirit of truth comes, it shall teach you all truth.’  
 (Buxtehuder Evangeliar 2.H.15.Jh.)

<sup>26</sup> Herforder Rechtsbuch: 0.24%, Griseldis 0.37%, Soester Schrae 0.38%.

<sup>27</sup> Abdinghofer Arzneibuch 0.0006%.

I propose to call this pattern ‘partial resumption’ because there is a resumptive pronoun, which resumes a constituent *contained in* the left-peripheral adverbial clause. In (16), for instance, the resumptive *de* only resumes *de geyst der warheyt* ‘the spirit of truth’, not the entire temporal clause preceding the resumptive. I would like to argue that this is not a case of the kind of V3 under consideration here. This is evident from cases such as (17), where the resumed constituent is the direct object in both the adverbial and the associated matrix clauses.

- (17) [*Were th dath Ienich tymmerholt<sub>i</sub> tho schepe queme vor*  
*were it that any timberwood by ship came before*  
*de Stadt edder an de hauene*] *dat<sub>i</sub> shall nen vorkoper kopen*  
*the city or to the port that shall no seller buy*  
*bynnen eneme daghe vnd ener nacht*  
*within one day and one night*  
 ‘Were it (the case) that any timber came by boat before the town or  
 the port, no seller may buy it within one day and one night.’  
 (Greifswalder Bürgersprache 1451)

Given the similarity of central adverbial clauses and left-dislocated topics (Ebert et al. 2014) and a movement analysis of (central) conditional clauses (Haegeman 2010), we can analyse such cases of partial resumption as a form of left dislocation with pied-piping of an adverbial (mostly conditional) clause. Following Grewendorf’s (2002) analysis of German Left Dislocation, this could be analysed as in (18).<sup>28</sup>

- (18) [<sub>ForceP</sub> [<sub>CP<sub>adv</sub></sub> *Were ... ienich tymmerholt<sub>i</sub> ...* ] [... [<sub>FinP</sub> *dat<sub>i</sub>* *Fin<sup>o</sup>* [<sub>TP</sub> ... *t<sub>i</sub>* ...]]]]]

Summing up, in those scarce MLG texts in which non-inverted V3 is attested, it is less frequent than in the multilingual part of the Kiezdeutschkorpus, but more frequent than in the monolingual part. On the whole, it seems to be a rather marginal pattern in MLG, which is perhaps surprising given the high frequencies of V3 after temporal clauses signalled by Donhauser & Petrova (2009) for two other MLG texts.<sup>29</sup> If Demske & Wiese’s (2016) hypothesis

<sup>28</sup> Technically, the adverbial clause in (17) is complex, consisting of a V1-conditional matrix (*were it (sake) dat* ‘were it (the case) that’) followed by an embedded *dat* ‘that’-clause. See a.o. Tophinke & Wallmeier (2011), Wallmeier (2015), Merten (2018) for arguments that *were (it (sake)) dat* evolved into an adverbial (conditional) connector in MLG.

<sup>29</sup> To be sure, they looked at the relative frequency among sentences with left-peripheral temporal clauses, not the relative frequency among declarative main clauses.

were on the right track, viz. that the availability of this word order option is diachronically stable, and survived in spoken language, one would not expect more cases in formalized legal texts, and one would expect a low but stable frequency across the corpus, not its absence from most of the texts.

## 5 SPOKEN PRESENT-DAY GERMAN

### 5.1 Existing literature

The literature on the grammar of spoken present-day German, as far as it has dealt with adverbial elements in the “pre-prefield” (e.g. [Thim-Mabrey 1988](#), [Scheutz 1997](#), [Fiehler, Barden, Elstermann & Kraft 2004](#), [Schröder 2006](#)), has so far mostly ignored non-inverted V3 after central adverbials. Instead, the focus is on elements which would also not (need to) cause inversion of subject and finite verb in Standard German, such as speech act operators or utterance-commenting formulae (e.g. *ich meine* ‘I mean’, *offen gestanden* ‘frankly’, *kurz und gut* ‘in short’, ...), so-called relevance conditionals (e.g. *wenn du schon alles weißt*(, *warum fragst du dann?*) ‘if you already know it all(, why do you ask?’), irrelevance conditionals (e.g. *was auch immer geschieht* ‘whatever happens’), concessive conditionals (e.g. *selbst wenn das passiert* ‘even if this happens’), hanging topics, or adverbial connectors that can occur both in the prefield (with inversion), and in the “pre-prefield” (e.g. *deswegen* ‘therefore’, *tatsächlich* ‘indeed’, *zweitens* ‘secondly’, ... cf. [Pasch et al. 2003](#), who call this position *Nullposition* ‘null position’, cf. footnote 6). Furthermore, there are discourse markers exclusive to spoken language that have developed from originally subordinating conjunctions and occur together with V2-clauses (e.g. *weil* ‘because’, *obwohl* ‘although’, *wobei* ‘whereas’, cf. [Gohl & Günthner 1999](#), [Günthner 1999, 2000, 2002](#)). Given that all these elements can combine with V2-clauses with clearly independent illocutionary force (questions, imperatives), their position outside ForceP should be uncontroversial.

Only [Auer \(1997: 73\)](#) cursorily mentions left-peripheral adverbial clauses as in (19) that cannot be analysed as having a meta-pragmatic function (speech act-modifying or utterance-commenting), but are clearly central adverbial clauses. However, he treats them as “complex adverbials” together with concessive and irrealis conditional clauses. The latter, unlike central adverbials, do not canonically require inversion, and clearly combine with V2 clauses with an independent illocutionary force.

- (19) [...] [*wo des der vater zu mir gseit hot*], [*i war so*]  
 when this the father to me said has I was so  
*tota:l fertig irgendwo*  
 totally down somehow  
 '[...] And when my father said this to me, I was so completely down  
 somehow'  
 (after Auer 1997: 73)

Schalowski (2015) was the first to address the availability of V3 after central adverbials in the spoken language outside multi-ethnolectal urban varieties. He collected 32 anecdotal observations of superficial V3 placement, and 122 tokens from the spoken language corpus TüBa-D/S.<sup>30</sup> However, many of the collected tokens are in fact not cases of V3 after central adverbials.<sup>31</sup> In order to assess the frequency of non-inverted V3 in spoken German for the present paper, Schalowski's data were filtered, and a number of tokens were removed for the following reasons.

Some of the cases in the collection are completely canonical German V2 sentences. (20 a) for instance is a constituent question, preceded by 'yes, gladly', in reply to an earlier exchange. In some cases, the initial element is not a central adverbial, but an adverbial connector of the type described by Auer (1996), Pasch et al. (2003), which are known to be able to occur in what they call the 'null position' preceding a fully fledged clause with independent illocution. In (20 b), for instance, such a connector (*ansonsten* 'otherwise') is followed by a Hanging Topic (*bezüglich der Fahrt* 'concerning the trip') and a matrix clause with independent illocution (here a question). (20 c) is a similar example, from the BSa-Sch part of Schalowski's data.<sup>32</sup>

- (20) (a) *aber gerne wie wäre es denn am sechsten*  
 yes gladly how would.be it prt on.the sixth  
*Februar*  
 February  
 'Yes, gladly, how would the sixth of February suit you?'  
 (TüBa-D/S s36447 (11); Schalowski 2015: 72)

30 Tübinger Baubank des Deutschen / Spontansprache (TüBa-D/S), <http://www.sfs.uni-tuebingen.de/ascl/ressourcen/corpora/tueba-ds.html>.

31 Schalowski (2015: 69) himself admits that particularly the TüBa-D/S list is not yet filtered for potentially irrelevant hits.

32 Standard capitalization added, as this was the only example in BSa-Sch that wasn't capitalized according to German standard orthography.

- (b) [ansonsten] [bezüglich der Fahrt], haben Sie da  
 otherwise concerning the trip have you there  
 schon Termine, oder...?  
 already dates or  
 ‘Otherwise, concerning the trip, do you already have plans there?’  
 (TüBa-D/S: s8168 (26); [Schalowski 2015](#): 72)
- (c) [desWEgen] .(-) sie haben eine bessere Anbindung an  
 therefore they have a better connection to  
 den Herkunftsdialekt  
 the home.dialect  
 ‘Therefore/Exactly, they have a better connection to the home dialect.’  
 (BSa-Sch 19; [Schalowski 2015](#): 70)

There are a number of cases where the presence of multiple constituents only seems apparent, and an analysis in terms of a single complex constituent seems at least plausible. The pitch accents indicated by the capitals in (21 a) on *RUSsisch* ‘Russian’ and *KEIne Beziehung* ‘no connection’ suggest that *in jedem Fall* functions like a postinitial connector or topic marker here much like *aber* ‘but’, *freilich* ‘of course’, *jedenfalls* ‘in any case’, *jedoch* ‘however’, *nun* ‘now’, ..., even though unlike those it consists of more than one word, and might therefore not be amenable to an analysis as a syntactic head.<sup>33</sup> In any case, one would not want to claim that this is a V2-violation of the kind that non-inverted V3 after central adverbials is. The fact that finite verb and subject are inverted in these examples further supports the intuition that this example is different from the kind of V3 under consideration here. In (21 b), the contrastive stress on *DU* ‘you’ suggests that *immer* works like a focus particle here, which according to the literature combine with full-fledged V2 clauses ([Jacobs 1986](#)), and can therefore be assumed to be located outside ForceP. Therefore, such tokens were removed.

- (21) (a) [*RUSsisch in jedem Fall*] *habe ich KEIne Beziehung zu*  
 Russian in any case have I no connection to  
 ‘In any case, I don’t have a connection with Russian.’  
 (BSa-Sch 17; [Schalowski 2015](#): 70)

<sup>33</sup> The reader is referred to the publications of [Métrich & Courdier \(1995\)](#), [Sæbø \(2003\)](#), [Breindl \(2008, 2011\)](#), [Catasso \(2015\)](#) for more details on the syntax, semantics, pragmatics and prosody of this construction.

- (b) [*immer*] *DU kommst zu spät*  
 always YOU come too late  
 ‘It’s always you who’s late!’  
 (BSa-Sch 31; [Schalowski 2015](#): 71)

Furthermore, all cases of *ja dann* ‘yes then’, *ja also* ‘yes well’ and *und dann* ‘and then’ were removed from the TüBa-D/S data, as they are likely to be discourse structuring strategies (cf. also [Schalowski 2017](#)), not central adverbials. This is also evident from the fact that the following main clause has its own illocutionary force, e.g. (22 a).<sup>34</sup> Finally, any sentences which clearly contain false starts and repairs (e.g. (22 b)) were removed,<sup>35</sup> as well as any cases of multiple XP-fronting that are not cases of a central adverbial followed by a full V2 clause, which in many cases might be production errors anyway (22 c).

- (22) (a) [...] [*und dann*] *wie lang sind Sie hier?*  
 and then how long are you here  
 ‘And then, how long are you here for?’  
 (TüBa-D/S s12979 (90); [Schalowski 2015](#): 74)
- (b) *also, Theater denke ich, daß da da kriegen wir keine*  
 so theatre think I that there there get we no  
*Karten mehr.*  
 tickets anymore  
 ‘Well, theatre I think that || there, there, we won’t get tickets anymore’  
 (TüBa-D/S s1906 (25); [Schalowski 2015](#): 72)
- (c) [*ich*] [*da im Theater*] *ist in Hannover bestimmt*  
 I there in.the theatre is in Hannover certainly  
*was Gutes los.*  
 something good going.on  
 ‘I, in the theatre in Hannover, there is certainly something good going on.’  
 (TüBa-D/S s21227 (65); [Schalowski 2015](#): 73)

After removing all such cases from Schalowski’s data collection, there remain 28 tokens with non-inverted V3 order after a central adverbial in the BSa-Sch, and 32 from the TüBa-D/S dataset. If we compare this latter figure to

<sup>34</sup> Cases where it could not be decided whether initial *dann* is a discourse marker or a temporal adverbial were left in. As argued in footnote 13 above, discourse marker *dann* should be treated differently from central adverbials such as temporal *dann*, despite superficial similarities.

<sup>35</sup> The || in the translation should indicate the point where the repair happens.



the total number of independent main clauses in TüBa-D/S,<sup>36</sup> we arrive at a frequency of 32 out of 33773 clauses – 0.09% – in that corpus. This is 4.5 times the frequency [Wiese & Rehbein \(2016\)](#) report for the monolingual part of the Kiezdeutsch corpus (0.02%), but 4.5 times less frequent than in the (elicited) monolingual data reported in [Wiese et al. \(2022\)](#) (0.41%).

More recently, [Bunk \(2020\)](#) carried out an acceptability experiment with 61 monolingual participants (50 of them female; mean age 24.6 years) with written stimuli consisting of a context and a target sentence, whereby the target stimuli had a temporal, local, or modal adverb in the first position of two types of V3 clauses and three types of V2 clauses with pronominal subjects. V3 orders were rated as significantly less acceptable than V2 orders, but the order adverb–subject–finite verb (which is the order actually attested in language use) was rated better than the order adverb–object–finite verb. As the acceptability of subject- and object-initial V2 did not differ significantly, Bunk’s experiment lends empirical support to the proposal of a subject/object asymmetry with respect to V3 by e.g. [Greco & Haegeman \(2020\)](#), showing that the order adverb–subject–finite verb has a different status from the order adverb–object–finite verb. However, given the low number of participants and the use of written stimuli (because of potential interference from the written norm) as well as the restriction to lexical, syntactically non-complex adverbials, particularly *dann* (cf. footnote 13), the results should be taken with some caution.

## 5.2 Radio interview data

For a first exploration of the prosodic, syntactic and discourse-functional properties of V3-orders after central adverbials in spoken German, [Breitbarth \(2022\)](#) analysed audio data from radio interviews.<sup>37</sup> All interviews are in standard-oriented spoken German, though interviews on Deutschlandfunk Nova tend to be more informal. Because only interviews were considered that contained the construction in question, it is difficult to estimate the actual distribution and frequency of the construction in the population. Nevertheless, the data gathered by [Breitbarth \(2022\)](#) do afford some interesting insights. Table 2 lists the names of the speakers, their birth year,<sup>38</sup> their gender, and

36 Estimated on the basis of the following query for finite clauses with a finite verb in the left sentential bracket: `#s=[cat="SIMPX"] > #lk=[cat="LK"] & #v:[pos=/V.FIN/] & #lk >* #v`

37 Mostly from various programmes of the Deutschlandfunk, Deutschlandfunk Kultur and Deutschlandfunk Nova.

38 In some cases, the exact year could not be found, and had to be estimated on the basis of other available biographical data, such as university graduation, or contextual information in the programme.

the radio station/programme.<sup>39</sup> It can be seen that more women were found to use the construction (12/18 speakers), and more speakers born after 1970 (also 12/18). This confirms Schalowski's anecdotal observations in BSa-Sch, who also found more female speakers using the construction (10 out of 15 of those whose gender is given in his data collection, after removing examples as discussed above). Furthermore, if the same or similar radio interviews are investigated in a more systematic fashion, the pattern is confirmed: Table 3 reports the incidence of non-inverted V3 after central adverbials over all root clauses in radio interviews differentiated by age cohort of the speaker (= apparent time), gender and level of formality.<sup>40</sup>

Name	born	gender	source	Adv-Su-Vf	all V2
Gysi	1948	m	speech/video	1	11
Rousseau	1955	f	DLF K Tach.	1	235
Aschenberg-Dugnus	1959	f	DLF	1	31
Seidel	ca. 1965	m	DLF	1	55
Jahn	ca. 1967	f	DLF	1	20
Maier	1967	m	DLF	1	72
Wöbbeking	1970	f	DLF	1	26
Sanyal	1971	f	DLF	1	76
Laufmann	1973	m	DLF	1	61
Weiß	1974	f	DLF N DT	2	336
Lüth	ca. 1975	m	DLF	1	57
Kantrowitsch	1979	f	DLF N DT	1	384
Baerbock	1980	f	DLF	1	140
Luge	1980	f	DLF	1	27
Schweitzer	1980	f	DLF N DT	5	271
Kloeble	1982	m	DLF N DT	3	394
Brodnig	1984	f	DLF	1	268
Hamberger	1985	f	DLF	1	38

**Table 2** Radio interviews studied by Breitbarth (2022)

<sup>39</sup> DLF = Deutschlandfunk (various programmes), DLF K Tach. = Deutschlandfunk Kultur, "Tacheles", DLF N DT = Deutschlandfunk Nova, "Deep Talk". The first row refers to this source: <https://www.facebook.com/gregor.gysi/videos/vb.42497482692/1102123866623921/?type=2&theater>

<sup>40</sup> The programme "Tacheles" of the station Deutschlandfunk Kultur, whose target audience are middle class university-educated listeners, was taken to represent a more formal interview situation, while the programme "Deep Talk" of Deutschlandfunk Nova, a station aimed at younger listeners, was taken as representative of a more informal interview situation. For instance, interview partners in "Deep Talk" are often addressed informally, by their first names and the pronoun *du* 'you' instead of formal *Sie* 'you'. The interviews reported on in Table 3 are listed in the Sources section.

Age cohort	+formal		-formal	
	M	F	M	F
65+ (born 1943–1955)	0/218	1/251 (0.4%)	0/127	0/377
ca. 50 (born 1968–1974)	0/257	0/203	0/324	1/384 (0.26%)
ca. 40 (born 1980–1983)	0/281	0/208	3/394 (0.8%)	5/271 (1.8%)

**Table 3** Social variables affecting the use of non-inverted V3 after central adverbials in radio interviews

Even though the absolute numbers are extremely low and therefore do not warrant statistical analysis, they suggest that again, female speakers tend to use non-inverted V3 after central adverbials more frequently, and diachronically (apparent time) earlier, than the male speakers. In the data reported in Table 3, women in a more informal setting<sup>41</sup> appear to lead men by one generation. To be sure, much more structured production data will be needed to confirm this trend. In the absence of these, a different source of data was used to get closer to an understanding of the temporal and social dynamics behind this phenomenon, as discussed in the next section.

### 5.3 Acceptability experiment

Further evidence for the availability of non-inverted V2 in present-day near-standard spoken German was gathered with the help of an online acceptability experiment.<sup>42</sup> In total, 187 people participated, of which 173 completed

<sup>41</sup> We will be ignoring for now the one older female speaker in the more formal category, which could be an outlier. The elicited data reported in Wiese et al. (2022) indicate that degree of formality (and spoken mode) is indeed a strong predictor.

<sup>42</sup> The experiment was created and hosted using the Gorilla Experiment Builder ([www.gorilla.sc](http://www.gorilla.sc); Anwyl-Irvine, Massoníe, Flitton, Kirkham & Evershed 2019). Data was collected between 26 April and 2 June 2021. Participants were recruited through the LinguistList (<https://linguistlist.org>) and by sending the participation link directly to colleagues in German and Austrian universities for further distribution. This recruitment strategy accounts for a number of imbalances in the data. One is the greater proportion of female participants, particularly among the younger speakers – university students of linguistics, the largest group of participants, are in the majority female. In the age group up to 24 years for instance, there are 42 female participants vs. only nine male. In the age group 25–39 years, there are 51 female participants vs. only 14 male. In the older age groups above 40 years of age, the ratio becomes more balanced, with 19 female and 11 male. As the link to the experiment was distributed via linguistics channels, this skew was to be expected. Similarly, this meant that education levels are expected to be similar among the participants (at least Abitur/Matura (= A-levels), many also a university degree), and this was therefore not used as a sociolinguistic predictor. There were responses from participants from fourteen German (Baden-Württemberg, Bayern, Berlin, Brandenburg, Bremen, Hessen, Mecklenburg-Vorpommern, Niedersachsen, Nordrhein-Westfalen, Rheinland-Pfalz, Sachsen-Anhalt, Schleswig-Holstein, and Thüringen) and eight Austrian (Burgenland, Kärnten, Niederösterreich, Oberösterreich, Salzburg, Steiermark, Vor-

the experiment, 14 dropped out. Of the 173 who completed the experiment, 27 had to be removed because they either did not fulfil the requirement of being native speakers of German or because their scores were concluded not to be trustworthy, because they gave very deviant scores to stimuli of which the acceptability should not be debatable such as the anchoring and/or filler sentences.<sup>43</sup> 146 speakers were retained, 112 female and 34 male (mean age 31.2 years).

Participants were asked to evaluate the acceptability of 60 audio stimuli on a 7-point Likert scale (Schütze & Sprouse 2013). Concretely, the task formulated at the beginning of the experiment was “Does the word order sound natural to you? Could you imagine someone saying this sentence like this?”. There were 12 target conditions with two lexicalizations each, randomly mixed with 36 fillers, of which 18 grammatical and 18 ungrammatical. All target sentences had the structure central adverbial–subject– $V_{\text{fin}}$ . Four types of central adverbials (temporal PP, locative PP, temporal CP, and (central) conditional CP) were crossed with three types of subject (personal pronoun, impersonal pronoun, and full DP), hence leading to twelve conditions. The grammatical fillers had the structures (a) Peripheral adverbial–subject– $V_{\text{fin}}$  (9 stimuli) and (b) central adverbial– $V_{\text{fin}}$ –subject (9 stimuli), the ungrammatical fillers had the structures (c) subject–central adverbial– $V_{\text{fin}}$  (9 stimuli) and (d) verb not agreeing with the subject + garbled word order (9 stimuli). Before the targets and fillers were presented, six anchoring sentences were presented in the same order for all participants (two grammatical (A), two ungrammatical (B), two intermediate (C), in the order A-B-C-B-C-A), to establish the floor and ceiling values for the acceptability ratings.<sup>44</sup>

In contrast to Bunk’s (2020) experiment, the use of audio stimuli was chosen to avoid rejection due to potential interference with the written norm, and to provide a natural prosody (based on the observations on attested data in Breitbarth 2022). In addition, all stimuli were recorded by two speakers, a male and a female one, in order to control for possible effects of voice on the acceptability.<sup>45</sup> Using a randomizer in the Gorilla experiment builder, par-

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arlberg, and Wien) federal states. Due to the recruiting method, participants are not evenly distributed over the states; in some cases, there was only one participant per state, while there were many from others. Besides the German and Austrian states, there was also one participant each from Switzerland and from South Tyrol (Italy). Further studies into the sociolinguistics of the non-inverted V3-pattern will be needed to supplement the current preliminary study.

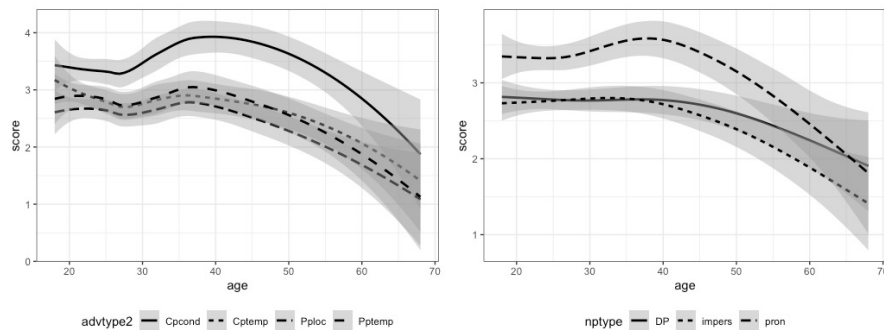
43 This led to the removal of all eleven participants between 70 and 80 years of age, besides a number of younger participants.

44 All stimuli (text and audio) can be accessed via the Open Science Foundation, <https://doi.org/10.17605/OSF.IO/9CQJ8>.

45 It has been claimed in earlier literature that male speakers’ voices tend to be evaluated more

ticipants were alternately assigned to the stimuli with the male or the female voice. Due to attrition and after removing outliers, there were 72 participants who heard the stimuli spoken by the female voice, and 74 by the male voice.

As Fig. 2, visualising the average acceptability scores as a function of participant age using the default smoothing method of `ggplot`, `geom_smooth`, in R (R Core Team 2015), indicates, the linguistic predictors show a decline in acceptability after the age of c. 40. This smoothing method fits a regression to the data, which can be non-linear if the data require and no other method is specified; in this case, `geom_smooth` defaulted to `gam`. The results of the smoothing show that the response function is in fact not linear.



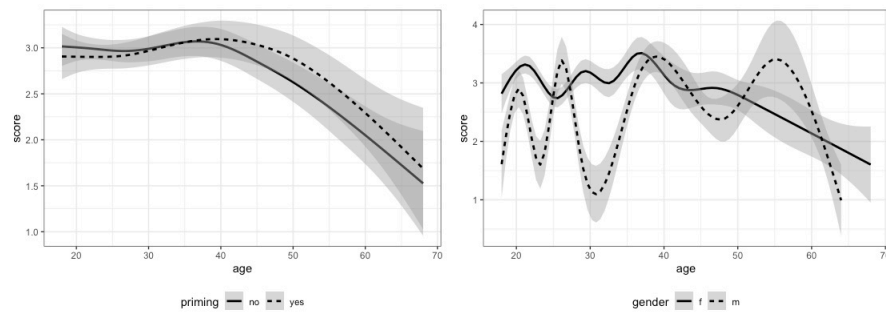
**Figure 2** Average acceptability scores as a function of participant age, by category of the adverbial (left) and by type of subject (right)

Although the average ratings are never very high, as can be expected from a marginal construction, there is a clear preference for non-inverted V3 with central conditional clauses in initial position (Fig. 2, left panel), and with pronominal subjects (Fig. 2, right panel). The data were therefore recoded accordingly for the further investigation, that is, the category of the initial central adverbial was recoded as a factor with two levels, CPcond vs. CPtemp+PP(temp+loc), and the category of the subject was recoded as a factor with two levels, pronominal vs. DP+impers.

The data were also coded for possible priming effects, such that a target stimulus was considered “primed” in case the stimulus immediately preceding it had been a target stimulus too, not a filler. As the left panel of Fig. 3

favourably than female speakers’ voices in general (Wilson & Bayard 1992: 51–53). Given the role women play in language variation and change as captured in Labov’s (1990: 205–206, 2001: 367) *Conformity Paradox*, however, it has more recently been argued (e.g. by Gronde-laers, van Hout & van Gent 2019) that this should not lead to the exclusion of female voices from experimental designs. As the aim of the present study was to address the sociolinguistic determinants of the acceptability of a marginal pattern, two voices were used.

shows, such priming had no discriminating effect on the ratings. However, one has to bear in mind that not only target sentences, but also some of the fillers may potentially have had a priming effect. For instance, it is possible that V3 clauses with a peripheral conditional clause (filler type A) might make an non-inverted V3 clause with a central conditional clause sound more acceptable. Also, more generally, it has to be borne in mind that the entire experimental design is such that an unusually large number of target sentences (24) are presented within the space of a few minutes, which does not of course reflect the natural frequency of this word order pattern in spoken German, which we estimated above to be around 0.09% of all independent clauses. But given the fact that the average ratings are rather low, and priming as operationalised here did not seem to affect the scores, it can be assumed that the (randomised!) order respective to filler stimuli also had no significant effect on the rating.



**Figure 3** Average acceptability scores as a function of participant age, by priming (left) and gender (right)

Concerning the gender of the participants, however, the acceptability ratings show a highly nonlinear and divergent behaviour, as shown in the right panel in Fig. 3. For female participants, the ratings clearly decline after the age of c. 40, comparable to the influence of the linguistic predictors, while also showing some wiggleness. For male participants, by contrast, it seems entirely impossible to discern a clear correlation between age and rating. On trend, younger male participants seem to reject non-inverted V3 more than female participants, while some older male participants accept it more than female participants in the same age group. One has to bear in mind, though, that there were much fewer male than female participants, which may lead to individual differences being overemphasised.

To gain a better understanding of the relative influence of the social and linguistic variables influencing the ratings, an ordinal generalised additive

mixed effects model (GAMM) was fitted to evaluate the individual influence of the predictors, and to also take into account random effects such as individual differences between participants, using the `bam`-function of the `mgcv`-package in R (Wood 2017, Baayen & Divjak 2017, Baayen & Linke 2020).<sup>46</sup> The main reason for choosing a GAMM was the non-linear (wiggly) relationship between predictors and rating in the data, as seen in Figures 2 and 3. GAMMs are designed to deal with such wiggly relationships between predictors and outcome, and are therefore to be preferred over more commonly used linear mixed effects models in such cases (Baayen, Davidson & Bates 2008). An ordinal GAMM (instead of a standard Gaussian one) was chosen because the dependent variable is ordinal, viz. a score on a Likert scale (Baayen & Divjak 2017). Random effects and random intercepts can be included by smoothing splines. The default type in the `mgcv` package are thin plate regression splines, which are sums of weighted smoothing functions that are used to model the non-linearity of rating as a function of different predictors.

Given the very different behaviour of male and female participants, it was decided not to use gender as a predictor, but to model the responses of male and female participants separately and compare the models. This decision had the added benefit of decreasing model complexity and, consequently, computing time. In both cases, the linguistic factors (**subject** and type of adverbial (**advtype**)) were included as main effects. Also **voice** was included as a linear predictor.

In order to accommodate the effect of individual participants on the outcome, by-participant random sum contrasts for **condition** were specified. Furthermore, a factor smooth for the covariate (**age**) was included. The model used was `score ~ subject + advtype + voice + priming + s(age, bs="fs", m=1) + s(condition, participant, bs = "re")`, for both the female and male responses. In both models, adding by-participant random intercepts (`s(participant, bs = "re")`) did not improve the models. Federal state and frequency of L2-use were also not included as they did not improve model fit, neither as linear predictors nor as random intercepts, probably because they are just a reflex of differences between individual participants, which were already built into the model via the by-participant random sum contrasts for **condition**. Compared to the baseline model with only linear predictors and **participant** as a random effect, the fREML scores of these models were significantly lower, indicating a better fit:

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<sup>46</sup> The `bam`-function was chosen over the `gam`-function in order to reduce computing time.



participants	baseline	fitted model	difference	p-value
female	7689.217	4949.698	-2739.519	<0.0001***
male	4771.194	1632.846	-3138.33	<0.0001***

The model for the female responses is reported in Table 4. The linguistic factors have a highly significant influence on the rating of the stimuli. A pronominal subject led to a higher rating (cf. positive *t*-value), while temporal CPs and temporal or locative PPs were rated lower than a central conditional CP (cf. negative *t*-value). The voice in which the stimuli were presented had a highly significant effect on the rating by female participants, too: stimuli in the male voice received significantly lower ratings (cf. negative *t*-value). Also the factor smooth for **age** and the by-participant random intercepts for condition were highly statistically significant.

A. Parametric coefficients	Estimate	Std. error	t-value	p-value
(Intercept)	0.65857	0.10466	6.293	<0.0001***
subject=pronoun	0.69258	0.09465	7.318	<0.0001***
advtype=CPtemp+PP	-0.79321	0.10228	-7.756	<0.0001***
voice=male	-0.59181	0.09108	-6.498	<0.0001***
B. Smooth terms	edf	Ref.df	F-value	p-value
s(age)	4.737	8	8.803	<0.0001***
s(Condition,participant)	536.679	1328	0.655	<0.0001***

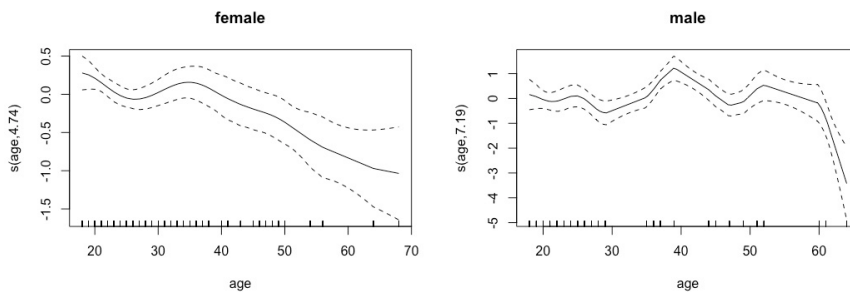
**Table 4** Generalized additive mixed model, female participants

A model with the same predictors, random slopes and random intercepts for the ratings by the male participants performed even better than the best model for the ratings by female participants. Table 5 summarises the data. According to this model, the effect of the type of subject on the rating has a significant effect at the 0.01-level, with pronominal subjects being preferred over full DPs or impersonal subjects (positive *t*-value, 2.792). The effect of the type of adverb is even highly significant at the 0.0001-level. Central conditional CPs are strongly preferred in initial position, as can be seen from the negative *t*-value for the opposite condition, temporal CPs and (temporal and locative) PPs combined. Unlike for female participants, the voice of the stimulus did not have a significant influence on the ratings of the male participants.

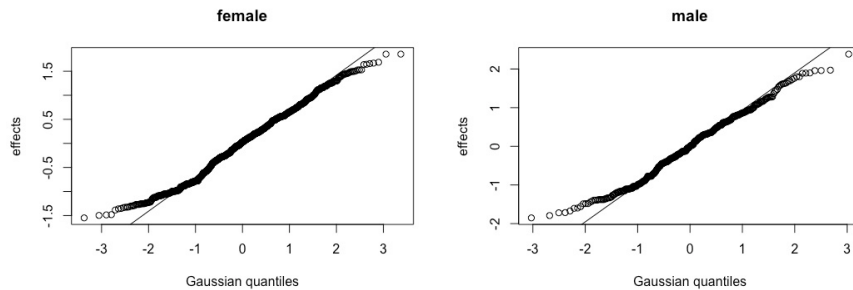
As the plots in Fig. 4 show, both models fit the data closely: the factor smooth for **age** helps modelling the wiggleness of the ratings by individual participants. The observed concavity of both models (measured with the concavity function of `mgvc`) is below 0.05 for the by-participant random smooth term, indicating that the smooth makes an identifiable contribution to the model's predictions. The fact that the by-participants random intercepts largely follow a Gaussian distribution (Fig. 5) is a further indication of the good fit of the models.

A. Parametric coefficients				
	Estimate	Std. error	t-value	p-value
(Intercept)	0.3039	0.2095	1.451	0.1474
subject=pronoun	0.5306	0.1900	2.792	0.0054 **
advtype=CPtemp+PP	-1.0491	0.2033	-5.160	<0.0001***
voice=male	0.1456	0.1936	0.752	0.4523
B. Smooth terms				
	edf	Ref.df	F-value	p-value
s(age)	7.188	8	16.152	<0.0001***
s(condition,participant)	190.315	404	0.894	<0.0001***

**Table 5** Generalized additive mixed model, male participants



**Figure 4** Generalized additive mixed model, fit of the factor smooth for **age**



**Figure 5** Quantile-quantile plot of the by-participant random intercepts of the two models

Summing up, the modelling of the acceptability ratings of non-inverted V3-clauses by male and female participants as a function of type of initial adverbial, type of subject, voice of stimulus, and age of participant, using generalised additive mixed modelling, has shown that speakers show great individual variation in their responses, but also that they tend to rate non-inverted V3 after central adverbials better if the subject is a pronoun and if the left-peripheral central adverbial is a conditional CP. Female participants rated stimuli better if presented by a female voice, while this had no significant effect in male participants. Neither priming nor the frequency at which speakers use a second language in their daily life had a significant effect in either group of participants, and neither factor improved the models. For female participants, there is a clear tendency for younger speakers to accept non-inverted V3 more than older ones. Such a tendency is not visible in the ratings of the male participants. Nevertheless, the factor smooth for age was significant for male participants, too, reflecting the great differences between individual language users.

#### 5.4 Summary

The production data considered in the present study, both from Schalowski's (2015) anecdotal observations and the TüBa-D/S corpus, and from the radio interviews examined for the present study, show that non-inverted V3 after central adverbials in spoken German is (a) spontaneously attested, though at a very low frequency of an estimated 0.09%,<sup>47</sup> and (b) that women seem to use

<sup>47</sup> As indicated above, Wiese et al. (2022) report much higher frequencies even in monolingual speakers; however, as a consequence of their elicitation method, most V3-utterances seem to be cases of listing *dann*, which may not be representative for the wider availability of the phenomenon as pointed out in footnotes 6 and 13.

it more, particularly if they are born after 1970 and speak in a more informal setting. Further studies of spontaneous speech, for instance using properly structured sociolinguistic interviews, are urgently needed to confirm, adjust, or disprove this first impression.

As such data are not yet available for the moment, an acceptability experiment was used to reach more detailed findings about the social and temporal dynamics of the phenomenon. The data gathered in the experiment pointed to a rather different rating behaviour of male and female participants. On the whole, central conditional clauses as sentence-initial adverbials are rated as more acceptable than other types of central adverbials, and pronominal subjects are preferred over full DPs or impersonal subjects, even though those are also attested in the production data. Speakers older than 40 reject V3 after central adverbials in any configuration more than younger speakers. While showing some individual differences, female participants largely followed this trend, with younger participants giving higher ratings on average than older participants. Male participants, on the other hand, seemed to accept V3 after central adverbials less than female participants, independently of their age. In an ordinal generalised additive mixed effects model, including age as a factor smooth term and by-participant random intercepts for condition, besides type of subject, type of adverb, and voice of stimulus as parametric terms, it was confirmed that voice had no effect on the rating of male speakers, while it was found to significantly predict higher ratings by female participants.

Given that non-inverted V3 after central adverbials is a deviation from the norm, the preliminary finding that women are accepting the construction more, particularly when uttered by a female speaker, is highly suggestive. According to Labov (1990), women tend to avoid non-standard forms in case of stable linguistic variables, i.e., variables with overtly prescribed sociolinguistic norms, but act as innovators in change from below, that is, use more non-standard forms in case of variables where a sociolinguistic norm has not yet been prescribed, which is also captured in Labov's (2001: 367) *Conformity Paradox*, according to which "women deviate less than men from linguistic norms when the deviations are overtly proscribed, but more than men when the deviations are not proscribed". Therefore, we can hypothesise that V3 after central adverbials is an incoming variant that is still under the radar of social awareness. This gives us a handle on the question under discussion in the present paper: If the use of V3 after central adverbials were a stable pattern in spoken language that has survived from older stages of German, we would not expect this sociolinguistic pattern. Rather, if anything, we would expect men to use it more frequently than women. The preliminary data therefore

suggest that we might be dealing with a change in progress here. Further sociolinguistic studies with authentic production data will have to confirm this.

Note that there are a number of caveats to be made here. With an eye on the higher incidence in the multilingual part of the Kiezdeutschkorpus, coupled with the fact that immigration of the contact languages present in this part of the KiDKo such as Turkish or Arabic came to Germany between 50 and 60 years ago, one may wonder whether contact plays any role after all. If relevant at all, such an influence is likely to be more indirect, perhaps in the form of ambient presence of the innovative variant.<sup>48</sup> First of all, even older speakers occasionally produce this pattern, also in more formal contexts, e.g. Rousseau (F, 1955) or Gysi (M, 1948). Particularly Gysi, who spent the first 45 years of his life in the GDR, was probably not much affected by everyday multilingualism. On the other hand, Kloeble (M, 1982) mentions in his interview that he is married to an Indian, and has lived several years in India. He is therefore probably more exposed to English than other speakers, which could also explain the fact that he is the only one in Breitbarth's (2022) data to use V3 after the temporal adverbial *heute* 'today' (twice), (13 a), and in addition uses V2 five times in an embedded *dass* 'that'-clause. But this cannot account for the female speaker in the same age cohort and formality setting, Schweitzer (F, 1980), who uses non-inverted V3 after central adverbials much more frequently. Her husband is also mentioned in the interview, but is apparently not a speaker of a foreign language.

The fact that informal contexts seem to favour the use of V3 (cf. also Wiese et al. 2022), together with the fact that women seem to lead in this development, rather points to this being a new variable which so far remains below the level of social awareness. This is corroborated by the fact that speakers, when directly confronted with this pattern in their own use, will deny using it themselves (anecdotal observations).

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48 Note that the much higher incidence of non-inverted V3 in heritage (Low) German in e.g. the US (Rocker 2022, Wiese et al. 2022), particularly with adverbs that are less frequent in other German varieties such as *so* 'so', points to the possibility that contact may have played a role in some varieties, but not in all.

## 6 CONTINUITY OR CHANGE?

We are now in a position to re-assess [Demske & Wiese's \(2016\)](#) hypothesis that the multiple filling of the German prefield may be an old phenomenon that survived the establishment of a stricter form of V2 under the radar of textual transmission, in informal spoken language use, at least with respect to one particularly unusual type of multiple prefield occupation, viz. non-inverted V3 after central adverbials.

For the occasional use of this word order in present-day spoken (monolingual) German, an average frequency of ca. 0.09% of all declarative main clauses can be estimated on the basis of the data in the TüBa-D/S corpus. For historical stages of German, none of the studies reviewed here gives a comparable figure for V3 after central adverbials; most include also other types of multiple prefields, some of which are uncontroversially continuously available in German, and often relatively formal (e.g. post-initial connectors), unlike the construction under consideration here. The one study that focuses exclusively on complex prefields involving central adverbials, [Donhauser & Petrova \(2009\)](#), does not give the frequency among all declarative main clauses, but only main clauses with a preposed temporal clause. The very high frequencies they report, particularly for the older of the two MLG German texts they discuss, could not be replicated in the CHLG. In this parsed MLG corpus, only four out of 16 texts contain the pattern at all, while it is absent in the others. A bias towards less formal text types, as one would perhaps expect if the phenomenon survived in spoken language, cannot be detected.

On the whole, while some types of multiple prefields remain available throughout the history of German ([Speyer & Weiß 2018](#), [Catasso 2021](#)), central adverbials do seem to have a strong tendency to occur in the prefield, causing inversion of subject and finite verb. By generally accepted assumptions, they therefore normally target a specifier in the C-domain. This is why [Speyer \(2008\)](#) reserves a separate projection (SceneP) for them in his cartographic left periphery of (historical) German.

However, such a preference does not entail that the adverbial occupies this CP-internal position in the case of non-inverted V3 after central adverbials in present-day spoken German, nor that there is diachronic continuity in central adverbials targeting it. [Breitbarth \(2022\)](#) has presented prosodic, syntactic and semantic evidence for a clause-external location of the adverbial in this type of V3 in spoken German. In the absence of prosodic information and acceptability judgments regarding reconstruction or temporal construal for older stages of German, this is difficult to ascertain. But given the facts that (i) most speakers, when directly confronted with the pattern, would correct it to

V2 with inversion, (ii) older speakers seem to use and accept it less frequently than younger speakers, even in informal situations, and (iii) women seem to use and accept it more and earlier than men, a case can be made for a change in progress, or at least a change in the use of an available option.

Adopting the view that we are dealing with an emerging phenomenon, the second question to answer is what exactly the change is at the syntactic level. The facts to be accounted for are the following: (i) Circumstantial adverbials, particularly clausal ones such as temporal clauses and event conditionals, tend to occur outside full V2 clauses in older stages of the language, but are increasingly “integrated” into the associate matrix clause, first by occurring with a resumptive in the prefield, later also without resumptive (cf. Section 4). (ii) In present-day German, we observe a change in progress from a grammar where central adverbials canonically occupy the prefield (or occur with a resumptive) and cause inversion to a grammar allowing the subject to intervene between a central adverbial and the finite verb. Similar to Hanging Topics, the adverbial in these V3 orders is separated from the associate clause by a prosodic boundary and can be shown not to have moved from inside the clause, e.g. using binding and reconstruction evidence (Breitbarth 2022).<sup>49</sup>

A tentative account of the changes can then be as follows: 1. The clausal left periphery can be simplified as proposed by Walkden (2017), with a higher CP<sub>2</sub> comprising ForceP, (SceneP), ShiftP and FocP, and a lower CP<sub>1</sub> comprising FamP and FinP. Let us assume that the bottleneck effect is the consequence of a constraint preventing more than one XP from reaching SpecCP<sub>1</sub> or SpecCP<sub>2</sub> by movement from the middle field. For the purposes of the present paper, it is not necessary to allow direct merger into the other specifier in addition, as Walkden does. 2. Hanging topics are situated outside ForceP. Given their similarities, this analysis should extend to circumstantial adverbials in the incoming non-inverted V3 orders (and other cases of the adverbial occurring outside a full ForceP, cf. (9)), situating them in a FrameP as proposed by Haegeman & Greco (2018) and Greco & Haegeman (2020), sketched in (23a). In the canonical case where a central adverbial occurs directly before the finite verb, the most parsimonious analysis is that it is located in SpecCP<sub>2</sub>, not in SpecFrameP, which is also supported by prosodic integration and binding/reconstruction facts, as sketched in (23b).

<sup>49</sup> Discourse linkers can always precede a fully fledged V2 clause. Yet, unlike Hanging Topics (or central adverbials in the incoming V3-option), they do not need to be separated from the associate clause by a prosodic boundary. The temporal adverbial *dann* ‘then’ seems to be in the process of developing into a discourse linker (Schalowski 2017), accounting for the fact that its prosodic properties differ significantly from those of other central adverbials in non-inverted V3 (Bunk 2020, Bunk & Rocker 2022).



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- (23) (a)  $[_{\text{FrameP}} \text{HT/circAdvP} [_{\text{CP}_2} (\text{subject}_{\text{Shift/Foc}}) [_{\text{CP}_1} (\text{subject}_{\text{Fam}}) [_{\text{C}_1} (\text{Vfin}_i) ] [_{\text{TP}} \dots \text{t}_i \dots ]]]]$   
 PDG: incoming variant

- (b)  $[_{\text{FrameP}} (\text{HT}) [_{\text{CP}_2} \text{circAdvP}_j [_{\text{C}_2} \text{Vfin}_i ] [_{\text{CP}_1} [_{\text{TP}} \dots \text{t}_j \dots \text{t}_i \dots ]]]]$   
 PDG: canonical order

3. Structures with resumption, like German Left Dislocation, stay inside ForceP: they move first to SpecCP<sub>1</sub>, where the resumptive will surface, and then to SpecCP<sub>2</sub>, following [Grewendorf \(2002\)](#). This accounts for their prosodic and syntactic (binding/reconstruction) integration.

- (24)  $[_{\text{FrameP}} (\text{HT}) [_{\text{CP}_2} \text{circAdvP}_j [_{\text{CP}_1} \text{d-pron}_j [_{\text{C}_1} \text{Vfin}_i ] [_{\text{TP}} \dots \text{t}_j \dots \text{t}_i \dots ]]]]$

4. This possibility only emerges in the course of German language history; in MHG, MLG and ENHG, non-inverted V3 is the result of external adjunction of the adverbial phrase. The finite verb only moves to C<sub>1</sub> in older stages of German.

- (25) **circAdvP** ...  $[_{\text{CP}_2} (\text{XP}) [_{\text{CP}_1} (\text{pron}) [_{\text{C}_1} \text{Vfin}_i ] [_{\text{TP}} \dots \text{t}_i \dots ]]]]$  MHG  
 (residual in MLG, ENHG)

The partial resumption observed in MLG (16–17) is evidence of the transition to an integration of central adverbials into their associated clause via left dislocation. The final stage is direct movement to SpecCP<sub>2</sub> as in (23b). Given the restriction that at most one XP from the middle field is able to reach the C-domain by movement, no other XP can occur in SpecCP<sub>1</sub>, leading to the canonical strict V2 order known from the literature.

5. Following [Greco & Haegeman \(2020\)](#), let us assume that in the conservative variety of German the finite verb only moves to C<sub>1</sub> in subject-initial main clauses, while it moves to C<sub>2</sub> in the innovative variety in non-inverted V3 with a circumstantial adverbial in SpecFrameP, thereby allowing the adverbial to establish a local relationship with the temporal, modal, or situational coordinates of TP, leading to the interpretation as a central adverbial.

## 7 WRAPPING UP

The present study employed a variety of methods to test the hypothesis formulated in [Demske & Wiese \(2016\)](#) that non-inverted V3 might be an old phenomenon. First, the existing literature on historical stages of (High and Low) German was compared, and extended with an additional study of Middle Low German. While it is always possible that the survival of non-inverted V3 in informal language use is overlooked, the available data suggest an increasing integration of circumstantial adverbials into the prefield of the associate clause, via a stage in which resumption was most frequent. This was complemented with a review of [Schalowski's \(2015\)](#) data collection of monolingual Present-Day German data, and by a study of a small corpus of radio interviews, which pointed to an interesting sociolinguistic patterning of the variation in these data: women seem to use the non-canonical order more than men, and age and degree of formality also seem to play a role. Finally, an acceptability study confirmed this observation: women also accept the word order more, and there seems to be a change in apparent time. Based on this, it was concluded that it is more likely that this is a change in progress, rather than an inherited phenomenon.

### SOURCES

*More formal (Deutschlandfunk Kultur, Tacheles)*

Male (1952): <https://www.ardaudiothek.de/episode/tacheles/china-und-d-er-westen-zwei-systeme-die-nicht-kompatibel-sind/deutschlandfunk-kultur/86505238/> (2021/02/20)

Female (1955): <https://www.ardaudiothek.de/episode/tacheles/beiersdorf-aufsichtsratin-ueber-gleichstellung-traut-euch-frauen/deutschlandfunk-kultur/72858982/> (2020/03/07)

Male (1968): <https://www.ardaudiothek.de/episode/tacheles/immobilienmillionaer-christoph-groener-vom-versagen-der-politik-und-dem-wunsch-zu-bauen/deutschlandfunk-kultur/89040298/> (2021/05/08)

Female (1970): <https://www.ardaudiothek.de/episode/tacheles/politologin-zum-eu-streit-mit-polen-und-ungarn-niemand-ist-gezwungen-in-der-europaeischen-union-zu-bleiben/deutschlandfunk-kultur/91757946/> (2021/07/31)

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Male (1981): <https://www.ardaudiothek.de/episode/tacheles/soziologie-ueber-einsamkeit-im-lockdown-gefangen-wie-in-einem-eisernen-kaefig/deutschlandfunk-kultur/85502554/> (2021/01/23)

Female (1983): <https://www.ardaudiothek.de/episode/tacheles/philosoph-in-lisa-herzog-ueber-wirtschaftsdemokratie-demokratisiert-die-unternehmen/deutschlandfunk-kultur/89831946/> (2019/11/30)

*Less formal (Deutschlandfunk Nova, Deep Talk)*

Male (1943): <https://www.ardaudiothek.de/episode/deep-talk/ex-verfassungsrichter-hans-juergen-papier-die-verfassung-ist-bedroht/deutschlandfunk-nova/70698760/> (2020/01/08)

Female (1954): <https://www.ardaudiothek.de/episode/deep-talk/psychologin-ursula-nuber-vergeben-ist-ein-geschenk-an-mich/deutschlandfunk-nova/78314792/> (2020/07/29)

Male (c. 1970): <https://www.ardaudiothek.de/episode/deep-talk/hans-jochim-leon-wie-laesst-man-eine-missbrauchs-plattform-auffliegen/deutschlandfunk-nova/90066084/> (2021/06/09)

Female (1974): <https://www.ardaudiothek.de/episode/deep-talk/minimalistin-anne-weiss-mein-leben-in-drei-kisten/deutschlandfunk-nova/79283132/> (2020/19/08)

Male (1982): <https://www.ardaudiothek.de/episode/deep-talk/autor-christopher-kloeble-entdecker-sind-die-vorhut-der-kolonialmaechte/deutschlandfunk-nova/72749782/> (2020/03/04)

Female (1980): <https://www.ardaudiothek.de/episode/deep-talk/janine-schweitzer-wieso-ekeln-dich-tatorte-nicht-an/deutschlandfunk-nova/91876594/> (2021/08/04)

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