

# German verb-first conditionals as unintegrated clauses: A case study in converging synchronic and diachronic evidence\*

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## Introduction

According to standard assumptions, German verb-first (= V1) conditionals are embedded clauses that occupy the prefield of their apodosis clause. We will argue against this analysis, showing that the V1-conditional is syntactically “unintegrated” in its apodosis. It follows that the apodosis cannot be a bona fide declarative verb-second (= V2) clause. We will support this claim with synchronic data from Present-Day German and data from historical text corpora. While the synchronic and diachronic data provide new insights by themselves, it is their combination that crucially corroborates our analysis of V1-conditionals as unintegrated clauses.

## 1. V1-conditionals – the phenomenon

The conditional construction is bipartite: the conditional clause of the construction is referred to as protasis, the consequent clause answering to the protasis is referred to as apodosis. A typical example of a German V1-conditional construction is given in (1). In the clause marked by square brackets, the finite verb *glaubt* ‘believes’ has moved to C°. There is no introductory conjunction. The resulting V1-clause has a strictly conditional interpretation.

- (1) [*Glaubt man den Plakaten* t<sub>i</sub>] jagt ein Großereignis das  
believes one the placards chases one mega-event the  
*nächste.*  
next  
‘If one may trust the placards, one mega-event is chasing the other’  
(TüBa-D/Z,n° 3802)

A comparative perspective shows that practically all Germanic languages, past or present, allow V1-conditionals, cf. Iatridou and Embick (1993: 191). Examples from Present-Day English and Dutch are given in (2a) and (2b), respectively.

- (2) a. *Had John eaten the calamari, he might be better now.* (Iatridou and Embick 1993: 197)
- b. *Heeft een schepsel een mond dan heeft het een neus.*  
has e creature a mouth then has it a nose  
'Has a creature a mouth, then it has a nose' (Dutch)

The traditional assumption is that V1-conditionals have the same structure as conditionals introduced by a conditional conjunction (cf. König and van der Auwera 1988, Iatridou and Embick 1993, Zifonun et al. 1997, Bhatt and Pancheva 2006). Since the German *wenn*-conditional is assumed to be embedded in the prefield (= SpecC) of its apodosis clause, the V1-conditional is assigned the same embedded analysis; cf. (3a)–(3b).

- (3) a. [SpecC [CP *Glaubt man den Plakaten*] [C' [C° *jagt<sub>tj</sub>*] [IP *ein Großereignis das nächste t<sub>j</sub>* ]]]  
believes one the placards chases one  
mega-event the next  
'If one may trust the placards, one mega-event is chasing the other'
- b. [SpecC [CP *Wenn man den Plakaten glaubt*] [C' [C° *jagt<sub>tj</sub>*] [IP *ein Großereignis das nächste t<sub>j</sub>* ]]]  
if one the placards believes chases  
one mega-event the next

Given this analysis, the expectation is that German conditional V1-clauses should meet the diagnostic criteria for syntactic embedding. In section 2 we will present data showing that this expectation is not fulfilled: the V1-clauses do not meet the criteria for syntactic embedding, but in fact exhibit 'unintegrated' or even paratactic properties. Furthermore, there is no complete overlap in the semantic function of *wenn*- and V1-clauses and, as our corpus investigation shows, their topological distribution differs as well. Therefore we propose that the structure of German V1-conditionals is unintegrated, as shown in (4a, b), where the V1-protasis (= CP2) is adjoined to its apodosis (= CP1). Note that the linear word order in (4) does not differ from (3a).

- (4) a. [CP1 [CP2 *Glaubt man den Plakaten*] [CP1 [C° *jagt<sub>tj</sub>*] [*ein Großereignis das nächste t<sub>j</sub>*]]]
- b.
- ```

      CP1
     /  \
  CP2    CP1
  /  \   /  \
Glaubt C°  ein Großereignis
man den jagt das nächste
Plakaten
  
```

In the next section we will present synchronic evidence based upon joint work with Marga Reis, (cf. Reis and Wöllstein 2008) supporting this analysis.

## 2. Synchronic Data: Present-Day German

### 2.1. Syntactic structure – diagnostics for syntactic embedding of V1- vs. *wenn*-conditionals

To show that V1- and *wenn*-conditionals do not have the same syntactic structure, we examine their behavior with respect to four well-established diagnostic criteria: (i) Binding, (ii) Scope of left-peripheral focus particles, (iii) Focus-background structure and (iv) Question-answer pairs in elliptical constructions.

#### 2.1.1. Binding

In general, coreference between pronoun and quantifier is possible if the left-peripheral clause is embedded in the matrix clause (cf. Frey 2004: 205) as can be seen in (5a). If we replace the *wenn*-clause by a V1-conditional, binding is no longer possible, see (5b). This is analogous to (5c), which shows that binding and clause integration interact (Frey 2004: 228). Following König and van der Auwera (1988: 16) the adverbial clause (= protasis) is structurally unintegrated if the apodosis has a V2-pattern.

- (5) a. *Wenn sein<sub>i</sub> Sohn was erreicht hat, ist jeder<sub>i</sub> Vater glücklich.*  
 if his son what achieved has is every father happy  
 ‘Every father is happy if his son has achieved something’
- b. \**Hat sein<sub>i</sub> Sohn was erreicht, ist jeder<sub>i</sub> Vater glücklich.*  
 has his son what achieved is every father happy  
 ‘Every father is happy if his son has achieved something’
- c. \**Hat sein<sub>i</sub> Sohn was erreicht, so ist jeder<sub>i</sub> Vater glücklich.*  
 has his son what achieved so is every father happy  
 ‘Every father is happy if his son has achieved something’

2.1.2. *Scope of left-peripheral focus particles*

Focus particles such as *sogar* 'even' and *nur* 'only' are elements which require a phrasal constituent in their scope. In (6a) the verb *kommst* 'come' in the adverbial clause fulfills this requirement because the *wenn*-clause is integrated and serves as a constituent of the matrix clause which is in the scope of the particle *nur* 'only'. The ungrammaticality of (6b) shows that the V1-clause may not occur within the scope of focus particles (see also Iatridou and Embick 1993: 198). The natural explanation is that *wenn*-clauses structurally belong to the apodosis but V1-clauses do not, that is, they are unintegrated.

- (6) a. *Nur wenn du KOMMST, backe ich einen Kuchen.*  
           only if    you come    bake I    a    cake  
           'Only if you come, I will bake a cake'  
       b. (\**Nur*) *KOMMST du, backe ich einenKuchen.*

2.1.3. *Focus-background structure*

In a focus-background structure, *wenn*-clauses are able to carry the main stress of the entire construction, cf. (7a). As illustrated by (7b)–(7d), V1-conditionals seem unable to do the same, rather, both clauses form focus-background structures of their own (Reis 2000: 217).

- (7) a. *Wenn ich MillioNÄR wäre, würde ich es tun.*  
           if    I    millionaire were would I    it do  
           'If I were a millionaire, I would do this.'  
       b. ??*Wäre ich MillioNÄR, würde ich es tun.*  
       c. ??*Wäre ich Millionär, würde ich es TUN.*  
       d. *Wäre ich MillioNÄR, würde ich es TUN.*

Iatridou and Embick claim (1993: 198) that the reason why V1-conditionals may not be focussed at all is because the proposition expressed by the V1-clause is always presupposed to be discourse-old. This implies that the difference in information structure between V1- and *wenn*-clauses does not reflect a syntactic difference: V1-clauses are held to be embedded just like *wenn*- 'if'-clauses. While it is correct that cases like (7b) are deviant, Iatridou and Embick fail to take into account data such as (7c) and (7d), which show that it is the lack of an explicit indication of two separate focus-background structures in V1-constructions that is at fault. This is again evidence for the unintegrated status of V1-conditionals.

### 2.1.4. Question-answer pairs in elliptical constructions

As observed by Altmann (1987: 27) and, independently, by Iatridou and Embick (1993: 199), *wenn*-conditionals may figure as elliptical answers but V1-conditionals may not, cf. (8a) vs. (8b). Since bona fide clause constituents may always function as elliptical answers, this is further evidence that V1-conditionals are unintegrated, unlike *wenn*-conditionals. Additional confirmation can be seen in the fact that German V2-argument clauses, which have been shown to be (relatively) unintegrated as well, contrast with canonical *dass* 'that' complement clauses in the same way (see Reis 1997).

- (8) [*Unter welchen Umständen würden Sie einen Bentley kaufen?*]  
 under which circumstances would you a Bentley buy  
 'In what circumstances would you buy a Bentley?'
- a. *Wenn ich Millionäre wäre.*  
 if I millionaire were.  
 'If I were a millionaire.'
- b. \**Wäre ich Millionär.*

So far, we have provided four syntactic arguments for the claim that *wenn*-conditionals and V1-conditionals have different structures. The former is integrated, the latter is not. In the following two subsections we will present evidence from semantic and topological distribution to further support our claim.

## 2.2. Semantics: overlap in meaning and function between V1- and *wenn*-conditionals?

As is well-known, *wenn*-clauses occur in different adverbial functions and may serve as complements as well (Fabricius-Hansen 1980: 161). Beside the true conditional contexts they can also be attested in unconditional contexts. Since *wenn*-clauses are compatible with these various functions and meanings, they can be regarded as unspecific. In this section we provide evidence that there are differences in the semantic distribution of V1- vs. *wenn*-conditionals, in that V1-conditionals are much more restricted and therefore more specific.

Bhatt and Pancheva (2006: 639) paraphrase the interpretation of the most common kind of conditional structures discussed in the literature, viz. the hypothetical conditionals, in the following way: "[...] the proposition expressed by the antecedent clause specifies the (modal) circumstances in which the propo-

sition expressed by the ‘main’ clause (=apodosis) is true. Thus, (9a) states that the possible worlds/situations in which [*Karl reads*] (the denotation of the conditional clause) are possible worlds/situations in which [*he falls asleep*] (the denotation of the ‘main’ clause).”

- (9) a. *Wenn Karl liest, schläft er ein.*  
       if Karl reads sleeps he  
       ‘If Karl reads, he falls asleep’  
    b. *Liest Karl, schläft er ein.*  
       reads Karl sleeps he

As (9b) shows, V1-clauses occur in this central interpretation as well.<sup>1</sup> But *wenn*-clauses in German have a much wider distribution than that; they may even occur in contexts where a truly conditional interpretation is excluded, cf. (10) and (11). If V1-conditionals were just a variant of *wenn*-conditionals as generally assumed, they should also be licenced in these contexts. But they are not: V1-clauses neither allow ‘unconditional’ or ‘speech act conditional’ interpretations as in (10a-b), no matter whether the apodosis is V1 (the exception) or V2 (the rule),<sup>2</sup> nor are they acceptable in complement function, nor are they really licit in factive/echoic (12a) and *ex falso quodlibet*<sup>3</sup> constructions (12b).<sup>4</sup>

- (10) a. *??Bin ich ehrlich /Wenn ich ehrlich bin, habe ich /ich habe*  
       am I honest /if I honest am have I /I have  
       *darüber noch nicht nachgedacht.*  
       about-it yet not considered  
       ‘To be honest, so far I haven’t thought about it’  
    b. *\*Darf ich es offen sagen /Wenn ich es offen sagen*  
       may I it frankly say /if I it frankly say  
       *darf, halte ich /ich halte das Ganze für einen Schwindel.*  
       may take I /I take the whole for a fake  
       ‘To put it bluntly, I think the whole thing is a fake’  
       ((10b) with *wenn*-clause from Pittner 2003: example (13b))

The fact that V1-clauses, unlike *wenn*-clauses, only occur with a truly conditional interpretation holds in contexts where the V1-clauses do not function as adverbial clauses at all: Whereas *wenn*-clauses may substitute for *dass* ‘that’-clauses appearing in the complement function of matrix predicates, V1-clauses may not. The same is shown in Reis (1997) for V2-clauses. More precisely, as Reis and Wöllstein (2008) have noted, ‘V1-substitute’ requires a salient conditional relationship – preferably a hypothetical one – between antecedent and consequent.<sup>5</sup>

- (11) a. *Mir ist lieber, wenn du nicht kommst.*  
 me is preferably if you not come  
 'I would prefer if/that you would not come.'
- b. \**Mir ist lieber, kommst du nicht.*

A further effect of the hypothetical conditional relationship on grammaticality can be observed in factive conditionals.<sup>6</sup> In factive and echoic conditionals the protasis has a factive reading. As example (12a) shows, V1-clauses are barely allowed in factive conditionals. For the *ex falso quodlibet* interpretation in (12b) the truth-value of the protasis is derivable from the truth-value of the 'apodosis'. Dancygier (1993: 421) characterizes them as containing "a blantly false [or] irrelevant conclusion as necessarily derivable from p and thus presenting p as false."

- (12) a. ??*Bleibt ihr schon so lange /Wenn ihr schon so lange*  
 remain you already so long /if you already so long  
*bleibt, könnt ihr auch mithelfen.*  
 remain can you MOD<sub>PCTL</sub> assist  
 'If you are going to stay that long, you can help'
- b. ??*War das die Zarentochter /Wenn das die Zarentochter*  
 was this the czar's-daughter /if this the czar's-daughter  
*war; bin ich die Wiedergeburt von Queen Victoria.*  
 was am I the rebirth of Queen Victoria  
 'If this was the Czar's daughter, I am a reincarnation of Queen Victoria' (The examples in (12) are taken from Reis and Wöllstein 2008).

Both factive conditionals and the *ex falso quodlibet* constructions contain a predetermined truth-value, given from either the protasis or the apodosis. In both cases V1-clauses are very marked. This suggests that V1-conditional constructions do not tolerate fixed truth-values. Reis (2008) concludes that conditional constructions with V1 typically show a hypothetical conditional interpretation and seem to be restricted to material implication.

To sum up: the differences between *wenn* and V1 discussed in this subsection can be considered to be semantically driven. Given that V1 has a unique function and meaning, there is only a partial overlap with *wenn*, namely in hypothetical conditional and temporal constructions. No overlap in meaning or function can be observed with the 'unconditional' (e.g. the 'speech act') interpretation and generally if the consequent or the antecedent has a fixed truth-value as with factive/echoic and *ex falso quodlibet* constructions. Thus, V1- vs. *wenn*-clauses do not have the same semantic properties.

### 2.3. Topological distribution of *wenn*- vs. V1-clauses – corpus investigation

Given the substantial differences between V1- and *wenn*-conditionals both in syntactic behaviour and in semantic function and meaning, one might expect differences in their topological distribution as well.

Comrie (1986: 83) among others generally confirms Greenberg's (1963) generalization that "in conditional statements, the conditional clause (= protasis) precedes the conclusion (= apodosis) in all languages". However, it is also undisputed that both orders are possible (see e.g. Comrie 1986, Bhatt and Pancheva 2006). Does this hold for the conditional constructions under investigation as well?

#### 2.3.1. *Postposed placement*

We carried out a corpus investigation in the treebanks TIGER and TüBaD/Z. As it turned out, V1-conditionals are hardly ever postposed (8%), whereas *wenn*-conditionals are abundantly attested in this position (81%).<sup>7,8</sup>

Besides this quantitative contrast there is also a qualitative one: All V1-conditionals that are postposed in the treebanks are in conjunctive mood (= subjunctive). The data in (13) show pre- and postposed V1-conditionals (marked by brackets): The introspective data in (13a)' and (13b) illustrate this contrast.

(13) a. [*Will nur einer die Trennung*], *entscheidet das*  
wants<sub>IND</sub> only one the divorce decides the  
*Gericht.*  
court

'If only one wants the divorce, the court decides'

a.' \**Das Gericht entscheidet, [will nur einer die Trennung].*

b. *Zudem verlangt es von ihm, die parlamentarische*  
moreover demands it from him, the parliamentary  
*Zustimmung einzuholen, [sollte er Bodentruppen in*  
consent to obtain should<sub>CONJ</sub> he ground troops in  
*den Krieg schicken wollen].*  
the war send want

'Moreover, it demands that he obtain parliamentary consent should he want to send ground troops into the war'

With *wenn*-conditionals there is no such restriction concerning verbal mood. What may be decisive here is that verbal mood plays a crucial role in strength-

ening semantic dependency: While conjunctive mood indicates interpretative dependency, hence integration, indicative does not.

### 2.3.2. Medial placement

To a limited extent both *wenn*-conditional clauses (14a) and V1-conditional clauses (14b) occur in the middle field. However, there is evidence that in this position V1-clauses are unintegrated parentheticals: In spoken language, they must be set off by parenthetical intonation. The same observation has been made for English *if*-conditionals in medial position (see Bhatt and Pancheva 2006: 645).

- (14) a. *Die Berliner Schauspielerin Alice Treff, wenn man*  
 the berliner actress Alice Treff if one  
*Eingeweihten glauben will, wird heute 85 Jahre.*  
 insider believe will becomes today 85 years  
 (COSMAS: MMM/106.15201)  
 'If you believe those in the know, the actress Alice Treff will be 85 today'
- b. *Was außer einer guten Examensnote für den*  
 what beside a good grade-in-the-exam for the  
*Berufsweg, [soll er denn in Topetagen, hinaufführen,] alles*  
 career shall it PCL in top-floor lead-up all  
*nötig ist, darüber informiert das Handbuch*  
 necessary is about-it informs the handbook  
*„Berufsplanung für den Management-Nachwuchs“.*  
 "Berufsplanung für den Management-Nachwuchs".  
 (TIGER s5411)  
 'What you need, apart from good exam results, for your career, if it is to lead up onto the top floor, is the subject of the handbook B f d M N.'

### 2.3.3. Word order options in the apodosis after preposed conditionals

After preposed V1-conditionals we do not only find instances of V1-apodosis, but also of V1+*so*-apodosis, cf. (15a) (similar examples with V1+*dann*-apodosis are also attested) and of V1+'V2'-apodosis, in which the prefinite position in the apodosis is not occupied by resumptive *so*, but by all sorts of fronted XPs, cf. (15b) (cf. König and van der Auwera 1988: 116).<sup>9</sup> Both of these patterns are unintegrated (cf. also the binding data for V1+*so* apodosis in (5c)).

- (15) a. *Glaubt man dem Festivalleiter Werner Rucicka, so*  
believes one the festival-manager Werner Rucicka then  
*stand es um den Dokumentarfilm nie besser.*  
stood it about the documentary film never better  
(TIGER, s22082)  
'If we can believe the festival manager W R, the documentary film  
has never been in better shape.'
- b. *Gäbe es ihn nicht, man müsste ihn*  
existed<sub>CONJ</sub> it he<sub>ACC</sub> not one must<sub>CONJ</sub> he<sub>ACC</sub>  
*im Interesse einer wachsamem, lebendigen Demokratie*  
on-behalf-of a alert lively democracy  
*erfinden.* (TIGER, s46743)  
invent  
'If it/he did not exist, one would have to invent it/him in the interests  
of a lively and alert democracy.'

According to König and van der Auwera (1988: 16), examples such as (15b) show certain characteristics that also are present in the case of unintegrated hypothetical *wenn*-clauses with V2-apodosis: The construction is in subjunctive mood and the apodosis often contains an anaphoric element (= *ihn* in (15b)). Without these characteristics, such non-epistemic and non-indicative patterns normally occur with V1-apodosis and not with V2-apodosis, as Reis (p.c.) states.

#### 2.4. Interim conclusion

In contrast to *wenn*-conditionals, V1-conditionals do not meet the diagnostic criteria for syntactic embedding. Furthermore, the semantics of *wenn*- and V1-conditionals show only a partial overlap. Finally, the topological distribution of V1-conditionals is more restricted than that of *wenn*-conditionals: V1-conditionals can hardly ever be postposed. Thus there is good evidence that V1-conditionals are different from *wenn*-conditionals, and that – in contrast to what is traditionally assumed – they are not embedded in the apodosis clause but unintegrated, i.e. linked to the apodosis clause by adjunction. This analysis, however, has the undisputable consequence that the apodosis in V1-conditional constructions is a V1-clause as well, cf. again (4), here repeated as (16).

- (16) [<sub>CP1</sub> [<sub>CP2</sub> *Glaubt man den Plakaten*] [<sub>CP1</sub> [<sub>C°</sub> *jagt<sub>j</sub>*] ] [<sub>IP</sub> *ein Großereignis das nächste t<sub>j</sub>* ] ] ]

This looks like an undesirable consequence for the traditional structural hypothesis. It is at variance with what is usually assumed about the distribution of V2-

vs. V1-declaratives in present day German. Thus, rounding off our synchronic analysis requires showing that this is necessary after all.

## 2.5. Independent evidence for a V1-apodosis in Present-Day German

In German, as in fact in many other Germanic languages, a marked V1-order is possible in declaratives (e.g. Platzack 1987, Lindström 2001; for German, e.g. Auer 1993, Diessel 1997, Önnarfors 1997, Reis 2000). The most common type is the so-called narrative type, cf. (17), which is sometimes also referred to as 'narrative inversion'. However, in German V1 is possible in non-narrative declaratives as well, cf. Önnarfors (1997: section 6) and Reis (2000). One example is the so-called 'causal type' (Önnarfors 1997: 155). This type of clause always follows an antecedent in the discourse, contains the modal particle *doch* and is interpreted roughly as a causal adverbial clause, cf. (18).

- (17) *Hab ich ihr da ganz frech einen Kuss gegeben.*  
 have I her there totally bold a kiss given  
 Then, I just went ahead and kissed her.  
 (Example taken from Reis 2000: 90)

- (18) (*Der Bau des Polders ist ungewiss.*) *steht ihm*  
 the construction of-the-polder is uncertain stands it  
*doch der Widerstand der Anwohner gegenüber.*  
 PCL<sub>MOD</sub> the Opposition of-the resident opposite  
 (Pasch et al. 2003: 515)

'The building of the polder is uncertain since it faces the resistance of the residents.'

There are even cases in which a V1-declarative is preceded by what is structurally a main clause but interpreted as subordinate: In (19a) the first clause shows main clause verb order (V2) and contains the particle *kaum* 'hardly'. It is followed by a declarative V1-clause. The *kaum*-clause is clearly syntactically unintegrated, because it has a V2-pattern and analogously to V1-conditionals binding into the apodosis is not possible, cf. (19b).

- (19) a. *Kaum war er am Bahnhof angelangt, fuhr schon der*  
 hardly was he at station arrived pulled already the  
*Zug ein.*  
 train in  
 'Hardly had he arrived at the station, the train pulled in.'

- b. ?/\**Kaum war (fast) jeder<sub>i</sub> endlich in Urlaub gefahren,*  
 hardly was nearly everyone finally in holiday gone  
*bekam er<sub>i</sub> Heimweh.*  
 became he home.sickness  
 ‘Hardly had almost everyone<sub>i</sub> gone on holiday at last, before he<sub>i</sub> got homesick.’

The *kaum*-construction – just like the V1-conditional construction – exhibits paratactic properties (see Reis 2007). Thus, V1-order even occurs after clauses that are clearly not integrated, but are interpreted as being subordinate to the V1-clause.

Finally, let us take a look at possible cases of adverbial clauses preceding non-declarative V1-clauses such as imperatives, (20a), and *yes/no*-interrogatives, (20b).

- (20) a. *Wenn du noch Zeit hast, spül doch die Teller*  
 if you still time have clear barely the plates  
*noch ab!*  
 yet  
 ‘If you still have time, wash the plates’
- b. *Während ich noch weg bin, kannst du schon mal*  
 during I still away am, can you yet already  
*anfangen zu kochen?*  
 begin to cook  
 ‘While I am still away, can you get on and start cooking’

Since imperatives and *yes/no*-interrogatives are V1-sentence types that are generally assumed to have no prefield position, they provide further evidence for the existence of an adjunction structure. The same is true for conditional clauses with a V2-apodosis as in (15b) (repeated as (21)):

- (21) *Gäbe es ihn nicht, man müsste ihn im Interesse einer wachsamem, lebendigen Demokratie erfinden.*

We conclude that there is evidence for productive declarative V1-order also in non-narrative contexts in Present-Day German. Furthermore, there is independent confirmation for an adjunction analysis in the case of interrogative and imperative apodosis clauses. Thus, it is by no means implausible to assume that the apodosis is an instance of a declarative V1-clause in V1-conditional constructions as well, as is predicted by our adjunction analysis.

### 3. Diachronic Data

Our diachronic data provide further evidence for the claim that V1-conditionals have always been unintegrated clauses. While canonical adverbial clauses underwent a syntactic change from matrix-external adjunction to syntactic embedding in late Middle High German (= MHG) and Early New High German (= ENHG) times, V1-conditionals retained their unintegrated status. The construction with a V1-apodosis after the left-peripheral V1-conditionals was a very late innovation that did not take place until the 17<sup>th</sup> century. We shall argue that the apodosis is a variant of (non-narrative) declarative V1-order that began to be attested in independent contexts in ENHG times.

#### 3.1. V1-conditionals and canonical adverbial clauses in Old and Middle High German

V1-conditionals are of old origin: They can be traced back to the earliest attested period of the German language, i.e. to Old High German (= OHG) times, (20a). As Behaghel (1928: 636) points out the phenomenon is probably Pan-Germanic even though it is not attested in Gothic.

- (20) a. [CP [CP [C *Ni*<sup>10</sup>- *duas*<sub>i</sub>] *thu só t<sub>i</sub>*] ... [CP *lon*<sub>j</sub> [C *ni*-  
NEG do you so benefit NEG  
*hábes*<sub>k</sub>] *thu es nihéin t<sub>j</sub> t<sub>k</sub>*]]  
have you it any  
'If you don't do it, you won't have any benefit from it' (Otfrid II  
20,7 (c. 870))
- b. [CP [CP [C *Uuirt*<sub>i</sub>] *er ferlâzen t<sub>i</sub>*] ... [CP *ér*<sub>k</sub> [C *rihtet*<sub>j</sub>]  
becomes he released he erects  
*sih áber t<sub>k</sub> úf ze hîmele t<sub>j</sub>*]]  
REFL however up to sky  
'But if it (the bough) is released, it will erect itself towards the sky'  
*Si hanc curuans dextra remisit . recto uertice spectat çelum.*  
(Notker *Boethius* III 118,16–17 (first half of 11<sup>th</sup> century))

Interestingly, the word order in the apodosis clause differs from that in Present-Day German. Instead of showing V1-order, the finite verb occurs in second position (or in third position if one also counts the V1-conditional). The finite verb in the apodosis is not directly preceded by the V1-conditional, but by a further XP in SpecC, i.e. the fronted direct object *lôn* in (20a) and the fronted subject pronoun *ér* in (20b). In Present-Day German this word order is no longer

possible in the normal case as can be easily seen if the translation shows the same V2-order in the apodosis: *\*verhältst du dich nicht so, keinen Lohn bekommst du dafür; \*wird er verlassen, er richtet sich aber auf zum Himmel.*<sup>11</sup>

This strange word order pattern violates the V2-constraint, which was already quite well established in OHG times (Axel 2007). It is not only characteristic of V1-conditionals, but also of canonical adverbial clauses, both conditional adverbial clauses as in (21a)<sup>12</sup> and other types of adverbial clauses (e.g. temporal ones). We use the term ‘canonical’ adverbial clauses to refer to subordinate clauses that are introduced by adverbial subordinators (e.g. *oba* ‘if’ in (21a), *dhuo* ‘when, as’, cf. (22b)) and exhibit (structural) verb-final order.

- (21) a. ... [CP[CP *oba thu uuili.*] [CP *thú<sub>j</sub> [maht<sub>i</sub>] t<sub>i</sub> mih*  
if you will you can me  
*gisubiren. t<sub>j</sub> ]]*  
cleanse  
‘If you are willing, you can make me clean’  
... *si úis potes mé mundare.*,  
(Tatian 179,23–24 (c. 830))
- (22) b. [CP [CP *Dhuo ir himilo garauui frumida*], [CP *dhar<sub>i</sub>*  
when he heavens’ equipment created there  
[C *uuas<sub>j</sub> ] ih t<sub>i</sub> t<sub>j</sub> ]]  
was I  
‘When he fashioned the heavens, I was there’  
*Quando praeparabat cęlos, aderam;*  
(Isidor 91–92 (c. 790))*

As is argued in Axel (2002, 2004), in OHG and MHG times canonical adverbial clauses were syntactically unembedded (= unintegrated clauses). This is why they could not occur in the prefield (i.e. SpecC according to traditional theory), a matrix-internal position.

Further evidence for their unintegrated status comes from their positioning with respect to matrix clauses introduced by sentence-particles. In OHG, *yes/no*-interrogatives still sometimes displayed the sentence-typing particle *eno/inu*. As demonstrated in Axel (2007: 210), such sentence-typing particles occupy a very peripheral position. Interestingly, adverbial clauses are placed even further to the left as is witnessed by several examples in Tatian (Axel 2004: 31f.). V1-conditionals are not attested in front of *eno* but this is probably an accidental gap in the data.<sup>13</sup> However, they do occur in front of the particle *iā* ‘yes’ in Notker’s texts:

- (23) [CP *Kuúnnin óuh tie úbelen ... dáz kúot tés sie*  
 attain however the evil-ones the good that<sub>GEN</sub> they  
*gérônt*]. *iâ neuuârîn sie dânnne úbele?*  
 seek PCL NEG.were they then evil  
 'But if evil men attain the good they seek, they cannot be evil?'  
*Mali uero si adipiscerentur bonum. quod appetunt. mali esse non pos-*  
*sent?*  
 (Notker Boethius IV 188,1–2 (c. 1000–1050))

That adverbial clauses were not syntactically embedded in their superordinate clause can furthermore be seen in complex sentences in which the matrix/apodosis clause is a subordinate clause itself. In this case a (preposed) adverbial clause is placed to the left of the subordinator (e.g. the complementizer *thaz* 'that') in OHG (and MHG) (Erdmann 1874, I: § 104, Kracke 1911, Axel 2002, 2004). We were not able to find any OHG examples with V1-conditionals occurring to the left of subordinate apodosis clauses. Again, this is probably an accidental gap in the data, the OHG corpus being relatively small. Many texts from the Middle period do witness this type of construction, however, as the following example from the Prose Lancelot illustrates. Here a V1-conditional occurs to the left of an object clause introduced by the complementizer *das*.

- (24) (*sie*) *hett angst*, [*begriff er sie*], *das er ir laster mocht*  
 she had fear caught he her that he her disgrace might  
*thun*,  
 do  
 'She was afraid that he might put her to disgrace if he got hold of her.'  
 (Prose Lancelot 52,19 (c. 13<sup>th</sup> century))

This word order pattern is ruled out in Present-Day-German where the adverbial clause has to be placed either in the middle or in final field of the subordinate matrix/apodosis clause it modifies. It should be noted that the left-peripheral placement of the adverbial clauses violates Chomsky's principle that adjunction to maximal projections is only possible if these are non-arguments (Chomsky 1986: 6).

All this evidence strongly suggests that neither canonical adverbial clauses nor V1-conditionals were syntactically embedded in their matrix/apodosis clauses in OHG (and MHG) times. Then the two structures should be identical in OHG. Axel (2002, 2004) proposes that canonical adverbial clauses were base-generated in their left-peripheral position and adjoined to the matrix-CP. We may assume the same structure for V1-conditionals:

(25) [<sub>CP1</sub> [<sub>CP2</sub> V1-conditional ] [<sub>CP1</sub> apodosis ]]

The only difference from the Present-Day German structure in (25) is that in those cases where the apodosis was a root declarative, in OHG (and MHG) times it generally exhibited a V2-pattern<sup>14</sup> in which the prefield could be filled by any kind of XP that has been topicalized from its apodosis-internal position. As was shown above, a V2-apodosis is no longer possible today.

The historical root of the adjunction construction is the so-called correlative diptych (Haudry 1973). This type of clause combining was common with both relative and adverbial (relative) clauses and can be traced back to Indo-European times. It is attested in Latin, Hittite and Sanskrit, for example. As Bianchi (1999) demonstrates, at a descriptive level the archaic construction is composed of two clauses, the main clause and a dependent, i.e. relative, clause, the latter appearing at the left or right margin. The relative element (marked by bold face in the examples below) is usually fronted. The main clause contains the correlative element (marked by underlining). This element either also occurs at the left periphery of the main clause or remains in its clause-internal base position. The relative element and the correlative are interpreted as roughly co-referential. A Latin example of the correlative diptych expressing temporal subordination is given in (26).

- (26) [[ tum<sub>i</sub> *denique* ... *nostra intellegimus bona*], [**quom**<sub>i</sub> ...  
 then really our (we)understand happiness when  
*ea amisimus*]]  
 it (we) loose  
 'We realize our happiness when we lose it' (Haudry 1973, 159, glosses  
 and translation adapted from Bianchi 1999: 98)

In OHG adverbial clauses, the dependent clause is introduced by the fronted 'relative head' in the form of a demonstrative adverb.<sup>15</sup> The main clause contains a correlative element, which is often, though not always, homonymous with the demonstrative adverb functioning as the 'relative head'. The same construction is abundantly attested in Old English (Mitchell 1982, Bianchi 1994).

- (27) *Inti* [<sub>CP</sub> [<sub>CP</sub> **thanne** *her cumit*, ] [<sub>CP</sub> thanne *thuingit her uueralt*  
 and when he comes then convicts he world  
*fon sunton* ... ]]  
 from sins  
 'And when he comes, then he will convict the word of sins'  
 & *cum unerit ille argu& mundum de peccato*  
 (Tatian, 585,3-4 (c. 830))

In OHG, the correlative element is not always fronted in the main clause. Sometimes it stays in its base position in the middle field as the following example from Isidor illustrates:

- (28) [CP *dhanne* ir ... *abgrundiu uuazssar umbihringida*] ... *mit*  
 then he abysses water encircled with  
*imu uuas ih dhanne al dhiz frummedi*  
 him was I then all this making  
*quando certa uallabat abyssos, ... cum eo eram cuncta componens*  
 'When he encircled the abysses ... , I was then carrying all of this out  
 with him'  
 (Isidor 92–94 (c. 790))

A further variant of this correlative structure are cases where there is no overt correlative element at present, cf. e.g. (22b) above. As Kiparsky (1995) argues for the old Indo-European languages (notably for Latin, Sanskrit, Hittite), the correlative is a silent *pro* in those cases, cf. (29). The silent correlative seems to have been restricted to those cases where it was an adjunct and not an argument (Kiparsky 1995).

- (29) [CP [CP *Dhuo ir himilo garauui frumida*], [CP<sub>dhar</sub><sub>i</sub> [C *uuas*]<sub>j</sub> ] *ih pro* <sub>t<sub>i</sub></sub> <sub>t<sub>j</sub></sub> ]]

It is unclear whether the analysis with a(n optionally) silent correlative adverb in the main clause can also be applied to other types of adverbial clauses, notably to the conditional ones introduced by *oba* as in (21a); or to the conditional ones with V1-order as in (20). However, nothing really hinges on this question. The important point is that in the area of adverbial subordination (as, in fact, with 'normal' non-adverbial relative clauses) there are residues of an archaic type of clause combination, viz. the correlative diptych. The dependent clauses in the correlative diptych are base-generated adjuncts to CP. In other words, there was an adjunction position for clausal material to the left of SpecC, which was of very old origin (cf. also Kiparsky 1995). V1-conditionals (as in fact their V-end counterparts) were placed in this peripheral position and not in SpecC.

In MHG times, V1-conditionals retained their unintegrated status. When preposed, they were placed to the left of the prefield of the main/apodosis clause (Behaghel 1929, Paul [1928] 1969: §495, Knaus 1995, Axel 2002, 2004). Often, though not always, there was a correlative adverb in the apodosis clause.

- (29) [CP [CP *wil er icht darwiedder sprechen*], [CP **ich** *wil es*  
wants he not there-against speak I want it  
*ware machen ...* ]]  
true make  
'If he does not want to speak against it, I will make it true ...'  
(Prose Lancelot 36,2 (13<sup>th</sup> century))

The same is true for canonical adverbial clauses. However, in late MHG the development of canonical adverbial clauses and V1 diverged. This process must have started in the late 13th century and, as will be shown in the following section, kept on until well into the ENHG period.

### 3.2. Canonical adverbial clauses: The rise of syntactic embedding

The decisive period for the question raised in this study is the ENHG period (c. 1350–1650) and the beginning of the New High German period. In order to be able to show the time course of the major developments in the syntax of adverbial subordination we carried out a corpus study. We investigated the Bonn online ENHG corpus, which is a collection of 40<sup>16</sup> digitalized texts of different dialect regions from four time periods.

In the ENHG corpus the left periphery of declarative main clauses after preposed canonical adverbial clauses<sup>17</sup> exhibits the following three surface word order patterns: (i) the adverbial clause is followed by a full V2 main clause whose prefield may be occupied by any kind of XP (AdvC–XP–V<sub>fin</sub>), (30a); (ii) the adverbial clause is followed by a full V2 main clause whose prefield is occupied by a correlative adverb (AdvC–corr.adv.–V<sub>fin</sub>) (this is a subtype of type (i)), (30b); (iii) the adverbial clause is directly followed by the finite verb, (30c). In the following examples, the adverbial clause is given in square brackets, the finite verb in the apodosis is underlined and the prefinite XP or correlative adverb is highlighted by bold face.

- (30) a. [*swenne er gelernet die gotes wisheit*], **er** heldet *sie*  
when/ he learns the God's wisdom he holds it  
*lange in sinem herzem*  
long in his heart  
'If he experiences God's wisdom, he will keep it in his heart for a  
long time'  
(Altdeutsche Predigten 3,10–11 (Upper Saxon, 1<sup>st</sup> half 14<sup>th</sup> cen-  
tury))

b. [*wann mir ein solche junckfraw in Portugal zů einer*  
 when me a such maiden in Portugal to a  
*Ehegemaheln zůston möch*]/ *wolt* ich all mein  
 spouse be-entitled might wanted I all my  
*hab und gůt in Hispanien zů barem gelt*  
 possessions and belongings in Spain to cash money  
*machen*  
 make

'If I were entitled to take such a maid as my wife in Portugal, I would cash in all my possessions in Spain'

(Jörg Wickram: *Nachbarn* 35,18–20 (Straßburg 1556))

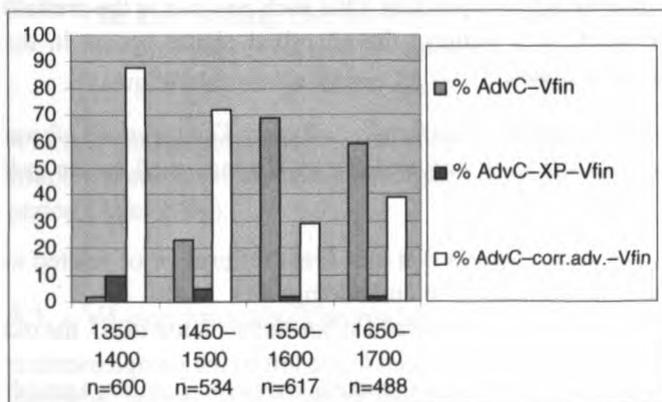
c. *Ob aber der schmerz ... zů lang blib*] *so ist*  
 if however the pain too long stayed<sub>CONJ</sub> so is  
*gůt ... das man nem Oleum rosarum*  
 good that one takes oil of.roses

'If, however, the pain remains for too long, it would be good to take rose oil'

(Hieronymus Brunschwig: *Chirurgie* 22(B),7–9 (Straßburg 1497))

The following table illustrates how frequent these three different patterns were in the four different time subperiods:

Table 1. Frequency of the three surface word order patterns after preposed canonical adverbial clauses in the Bonn online ENHG corpus



As can be seen, between 1350 and 1400, the by far most frequent pattern is the one in which the adverbial clause is followed by a correlative adverb occurring in the prefield of the main clause. However, the pattern AdvC-XP-

$V_{fin}$ , which is ungrammatical in Present-Day German with the core types of canonical adverbial clauses, is also realized in 10% of the cases, which is a considerable amount. The pattern AdvC- $V_{fin}$  which is the most frequent one in Present-Day German, is realized in only 2 % of the cases. Early instances of this type of example are already attested in late MHG times, for example in the late MHG part of the Prose Lancelot (Axel 2002). However, in the second subperiod (1450–1500) its frequency is significantly higher ( $\chi^2(1) = 111,30$ ;  $p < .01$ ). Furthermore, there is a significant difference between the second and third (1550–1600) subperiod ( $\chi^2(1) = 252,04$ ;  $p < .01$ ). While from a diachronic viewpoint, the AdvC- $V_{fin}$  pattern is gaining ground in the ENHG period, the AdvC-XP- $V_{fin}$  pattern is on the decline: There are significant drops in frequency between the first and second ( $\chi^2(1) = 5,8$ ;  $p < .05$ ) and between the second and third subperiods ( $\chi^2(1) = 10,472$ ,  $p < .01$ ). If one also looks at the data qualitatively, it emerges that the ‘residual’ examples from the second half of the ENHG period (i.e. between 1550 and 1700) largely exhibit the same characteristics that have been found to apply to the corresponding Present-Day German cases (König and van der Auwera 1988; cf. also fn. 7 above): The vast majority of them are counterfactual conditionals, concessive clauses or special types of conditional clauses such as speech act or irrelevance conditionals.

How can these developments be analyzed? Axel (2002, 2004) argues that the rise of the AdvC- $V_{fin}$  pattern and the accompanying decline of the AdvC-XP- $V_{fin}$  are the surface reflexes of an underlying change in the syntactic status of adverbial clauses from left-peripheral adjunction (AdvC-XP- $V_{fin}$ ) to syntactic embedding. In other words, adverbial clauses have developed into clauses that can occupy a matrix-internal adjunct position. One such position is the prefield (= SpecC). So in the AdvC- $V_{fin}$  pattern, the adverbial clause occurs in the SpecC-position of the main clause:<sup>18</sup>

- (31) [CP [CP *wann mir ein solche junckfraw . . . zû einer Ehegemaheln zûston  
möcht*] [C' *wolt ich all mein hab und gût in Hispanien zû barem gelt  
machen* ]]

There are further grammatical changes that are direct reflexes of or related to the underlying change from adjunction to embedding.

In those cases where the matrix clause was a subordinate clause itself, the old pattern where the adverbial clause was placed to the left of the complementizer was pushed back. Instead, in the second half of the ENHG period, adverbial clauses begin to be attested to the right of the complementizer, i.e. in the middle field of the subordinate clause (cf. also Behaghel 1932: 296, Reichmann and Wegera 1993: § S 318).

- (32) ... [<sub>CP</sub> *daß* [ *wenn sie auff Erden gewest*] /*man sie mit*  
 that if they on earth been one they with  
*Prüglen hätte todschmeissen sollen.*]  
 clubs had dead.bash should  
 ‘... that one should have bashed them to death with clubs if they had  
 been on earth’  
 (Gotthard Heidegger: *Mythosopia* 41, 9–11 (Zurich 1698))

A further change is the development of the stacking of adverbial clauses. In OHG and MHG texts there are virtually no cases where pre-posed or post-posed adverbial clauses are themselves the superordinate clause of a further adverbial clause. There are cases, notably in MHG prose texts, in which more than one adverbial clause occur in either pre- or post-posed position. However, in almost all these cases the adverbial clauses are of the same degree, that is they are not in a hypotactic relation to each other, but are both directly dependent on the root clause. By contrast, in ENHG times, complex sentences become to be attested in which a (pre- or post-posed) adverbial clause is itself the matrix clause of another adverbial clause that it embeds:

- (33) *behielt im nichts anderst vor/ dann ein sunder*  
 kept him nothing else PCL<sub>VERBAL</sub> then a special  
*gemach/ [ damit er ein rhû haben möcht/ [wann es im*  
 chamber so.that he his quietness have may when it him  
*gelegen was ]]*  
 suited was  
 ‘he kept nothing else for him than a special chamber so that he could  
 have his peace and quiet whenever it suited him’  
 (Jörg Wickram: *Nachbarn* 28,15–17 (Straßburg 1556))

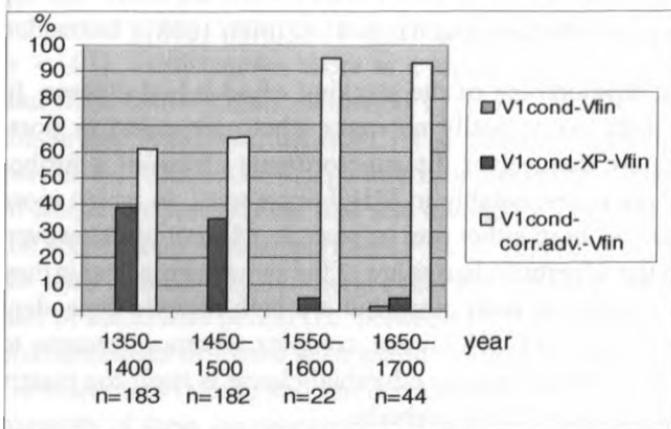
A further change pertains to the inventory of adverbial subordinate conjunctions, which was subject to an intense re-organization during the late MHG and ENHG period (Axel 2004).

### 3.3. V1-conditionals: The rise of the V1-apodosis

As was outlined in the last section, the ENHG period is characterized by massive changes in the grammar of subordination, notably with adverbial subordination. One surface reflex that can be easily quantitatively studied in corpora is that adverbial clauses increasingly become attested in the position directly in front of the matrix finite verb (= AdvC–V<sub>fin</sub> surface pattern). Interestingly,

V1-conditionals did not participate in this development. This can be seen in the following table:

Table 2. Frequency of the three surface word order patterns after preposed V1-conditionals in the Bonn online ENHG corpus



Let's first look at the first subperiod (1350–1400). It can be seen that the frequency of the V1cond-XP-V<sub>fin</sub> surface pattern, (34), was quite high (39%), much higher than in the case of canonical adverbial clauses (s. Table 1).

- (34) [*slet man die frucht ab*], *der boum brenget des ander jares*  
 slays one the fruit off the tree brings the other year  
*noch grözzer frucht.*  
 even bigger fruit

'If one cuts off the fruit, the tree will bear an even bigger fruit in the following year later'

(Altdeutsche Predigten 20,20–21 (mid 14th century))

There is, however, a parallel in the diachronic development: As in the case of canonical adverbial clauses, this pattern is also on the decline with V1-conditionals even though this decline is somewhat delayed compared to the canonical adverbial clauses. As can be seen in the second half of the ENHG period (1550–1600, 1650–1700), the frequency is significantly lower than in the first half (1350–1400, 1450–1500) ( $\chi^2(1) = 27,02$ ;  $p < .01$ ). Interestingly, in the case of V1-conditionals the V1cond-XP-V<sub>fin</sub> pattern it is not pushed back by the V1cond-V<sub>fin</sub> pattern, but by the correlative pattern. In the second half of the ENHG period, the correlative pattern is realized in over 90% of the cases. In the vast majority of examples, the correlative is the adverb *so*:

- (35) [*hastu rechte gelouben ...*], *so bistu sin wirdich*  
 have-you right faith so are.you his<sub>GEN</sub> worthy  
 'If you have the right faith, you will be worthy of him'  
 (Altdeutsche Predigten 5, 28–29 (Upper Saxon, 1<sup>st</sup> half 14<sup>th</sup> century))

With V1-conditionals, the V1cond–V<sub>fin</sub> pattern, cf. (36), is not attested in the corpus until the second half of the 17<sup>th</sup> century. Since there are gaps of 50 years in the corpus, we do not have any data from the subperiod 1600–1650. So we do not know for sure when V1-conditionals started to appear. Nevertheless, we can conclude that in the corpus the pattern V1cond–V<sub>fin</sub> arises at least 250 years later than the pattern AdvC–V<sub>fin</sub>.

- (36) [*Würde es aber mein Glück vnd Beruff seyn/*  
 would it however my fortune and profession be  
*dasselbige zu fördern / wolte ich mein Leben von Herten*  
 that.same to promote wanted I my life from heart  
*gern darmit zubringen.*  
 with.pleasure there.with spend  
 'If, however, it were my fortune and profession to promote that, I would be happy from the bottom of my heart to spend my life with it'  
 (Walter Raleigh: Amerika 5, 24–25 (Frankfurt/M. 1599))

There is thus a considerable delay compared to the rise of the AdvC–V<sub>fin</sub>-construction with canonical adverbial clauses. This strongly suggests that these two developments are not reflexes of the same underlying phenomenon: If the hypothesis is correct that the spread of the AdvC–V<sub>fin</sub> pattern with canonical adverbial clauses in the ENHG period is one major surface reflex of the rise of structural embedding, it looks as if V1-conditionals have not participated in this syntactic change.<sup>19</sup>

So in the case of V1-conditionals the major surface developments in the ENHG period are: an increase of the correlative pattern (= *so*-apodosis) at the expense of the V1cond–XP–V<sub>fin</sub> pattern, the very late rise of the V1cond–V<sub>fin</sub> pattern. The first two developments do not reflect a change in the underlying syntax: as was demonstrated above for Present-Day German, (5c), V1-conditionals followed by a *so*-apodosis are unintegrated/unembedded clauses. The same is true for those followed by a V2-apodosis that is not introduced by a correlative adverb. So V1-conditionals have retained their unintegrated status. What has changed is the surface manifestation in the apodosis where the filling of the prefield has become more restricted: instead of placing an XP of any type in this position, there was a strong diachronic tendency to favour the correl-

ative adverb *so*. But why was the pattern without a correlative adverb in the V2-apodosis driven back between the middle of the 15<sup>th</sup> and 2<sup>nd</sup> half of the 16<sup>th</sup> century? Even in languages with very strict V2-grammars such as Present-Day German, extensions of the left periphery by clauses or non-sentential XPs are tolerated when a resumptive pronoun or adverb occurs clause-internally, as is the case in the Left-Dislocation or Hanging-Topic construction. In OHG and MHG, clause combining with adverbial clauses constituted a systematic exception to this 'rule'. However, during the first half of the ENHG period canonical adverbial clauses have increasingly gained access to the matrix SpecC-position, as a result of which pre-SpecC-placement without a following resumptive or correlative adverb (*AdvC-XP-V<sub>fin</sub>*) was pushed back and marginalized to special types of adverbial clauses. This marginalization may explain why the grammar could no longer tolerate the *V1cond-XP-V<sub>fin</sub>* pattern in the case of V1-conditionals. Since V1-conditionals have not developed into embedded clauses and could not occupy the SpecC-position in the apodosis, the predominance of the *V1cond-XP-V<sub>fin</sub>* pattern could only be circumvented by the spread of the correlative pattern with *so*.

In the 17<sup>th</sup> century, a further innovation took place: the rise of the V1-apodosis. Once this innovation had entered into the grammar, a competition must have taken place between the V1- and the *so*-apodosis in the course of which the V1-apodosis gained ground. This must have taken place in the last 300 years, between 1700 and the present. We do not have any systematic corpus data from the New High German period, but we know that in Present-Day German the V1-apodosis is much more frequent than the *so*-apodosis.

What we still need to explain, however, is how the V1-apodosis might have developed in the first place. This will be done in the following section.

### 3.4. The rise of new types of V1-declaratives

We have argued that V1-conditionals did not participate in the change from peripheral adjunction to clause-internal embedding. Their unintegrated status has been diachronically stable. If this is correct, the rise of the *V1cond-V<sub>fin</sub>* pattern must be analyzed as a newly arising syntactic structure of the apodosis and not of the V1-conditional. The new structure would be a declarative clause with V1-order, that is with no SpecC-position. In section 2.5 we argued that this is indeed a feasible analysis for the Present-Day German data since there is evidence for the existence of non-narrative declarative V1-order in independent contexts. How plausible is this analysis from a diachronic perspective?

It is a well-known fact that in the late ENHG (16<sup>th</sup> century onwards) period new types of so-called V1-declaratives began to spread (= so-called *späte Spitzenstellung im Aussagesatz* 'late V1-order in declaratives', Behaghel 1932: 27–29). It should be noted that the phenomenon of V1-declaratives as such is characterized by a discontinuous diachronic development:<sup>20</sup> In MHG texts, V1-declaratives are hardly attested (Maurer 1926, Paul [1919] 1968: 71), they only begin to rise after the middle of the 15<sup>th</sup> century – first with verbs of saying in *inquit* formulae, later also with dynamic verbs in narrative contexts. Interestingly, besides the well-known 'narrative type' new types of V1-declaratives developed in the 16<sup>th</sup> century and became more frequent in the 17<sup>th</sup> century.

One such type is V1-declaratives containing the modal particle *doch* that occur in argumentative contexts and usually receive a causal interpretation (see (18b) for a Present-Day German example). This type begins to be attested from the 16<sup>th</sup> century onwards, cf. (39) for an example from the Bonn corpus. Some early examples occur in Luther's works (cf. Behaghel 1932: 39 for an example). Again, this type of V1-declarative still occurs in Present-Day German, cf. (37).

(37) Virt[iganes]. . . . *Und ob gleich der König beschlossen hat/ . . . den meisten Theil voran#zu schicken/ werden doch so viel Schiffe zurückbleiben/ dabey man allen Difficultäten wird begegnen können.* (Even though the king has decided to send forth the major part, enough ships will stay so that all difficulties [= a potential rape of the princess, K.A.] can be encountered)

Sel[enissa]. *Sind doch alle Fabeln voll Götter/ welche  
are DOCH all fairytales full gods who  
Jungfern geraubet haben.  
maiden robbed have*

'since indeed all fairytale are full of gods who have raped maidens'  
(Weise: *Jugendlust* 143, 20–25 (Leipzig 1648))

Furthermore, there is the phenomenon of V1-declaratives after main clauses containing the particle *kaum* (see (19a) for a Present-Day German example). Clauses with this particle have never been able to stand on their own, they have always been followed by a second clause and this second clause is either a V1-clause, or a V2-clause introduced by the resumptive adverb *so* or *da*.<sup>21</sup> Some of the 16<sup>th</sup> and 17<sup>th</sup> century texts in the Bonn corpus contain *kaum*-clauses, but in all of them the second clause follows the resumptive pattern. However, the pattern with a V1-apodosis is attested in texts from outside the corpus (cf. also Grimm and Grimm 1873 (volume 5), p. 357 for further examples):

- (38) *das volk het kaum ihr wunsch verricht, verlor das schiff*  
 the folk had hardly her request out.carried lost the ship  
*sich aus dem gsicht*  
 REFL out the sight  
 'Hardly had the people carried out her request, when the ship disappeared'  
 (Fischart, *gl. schiff* (1577, 527) (cited from Grimm and Grimm 1873, vol. 5: 357))

Moreover, Maurer (1926: 204) discusses a type of declarative V1-order that is quite characteristic of the language of the Chronicles (so-called *Urkundensprache*) and serves to establish a strong connection between two main clauses following each other in discourse. This connective effect is so strong that the first clause is interpreted as being subordinate to the second one with V1-order even though it is structurally a main clause:

- (39) *Am dinstagk bin ich ken Aldem Lessen kuemmen vnd*  
 on.the Tuesday am I toward Aldem Lessen come and  
*mich dem erzbischoff lassen ansagen. Hatt er mich lassen*  
 me the archbishop let announce has he me let  
*entphan ...*  
 receive  
 'When, on Tuesday, I approached A.L. and let myself announce to the archbishop, he let me be received ...' (Brandenburgian Document (1521a) (cited from Maurer 1926: 204, translation according to Maurer's commentary))

To sum up, the rise and spread of V1-declaratives in the ENHG period did not only pertain to the well-known narrative type, but also to various other types. It is thus not inconceivable that this innovation also spread over to the apodosis clauses of the syntactically unintegrated V1-conditionals.

#### 4. Conclusion

Our aim was to present evidence from synchrony and diachrony to defend the claim that V1-conditionals are not syntactically embedded, but adjoined.

Diachronically, V1-conditionals did not participate in the rise of embedding and this finds its synchronic reflex in the fact that in Present-Day German they do not satisfy the diagnostic criteria for syntactic embedding. Furthermore, there are differences in syntactic distribution and semantics between V1-conditionals

and conditional *wenn*-clauses, an observation which strongly suggests two diverging analyses: In contrast to *wenn*-clauses and to what is traditionally assumed, V1-conditionals are not embedded into the apodosis clause but unintegrated, i.e. linked to the apodosis clause by adjunction.

The implication of the adjunction analysis is that synchronically the apodosis is a declarative V1-clause. At first sight this appears to be an unorthodox proposal. However, it is supported by the observation that not only are V1-declaratives more wide-spread than commonly assumed, but they also occur after structurally unintegrated *kaum*-clauses that are interpreted as being subordinate. Further plausibility for our proposal comes from the fact that diachronically there is a rough temporal correlation between the innovation of the V1-apodosis and the rise of certain types of (non-narrative) V1-declaratives in independent contexts.

What we have not addressed so far is the question why a V2-grammar should tolerate the adoption of a declarative V1-structure. Even though V1-declaratives do occur in many Germanic languages, this is still a marked sentence type after all. It is conceivable that surface equivalence may be responsible for this.<sup>22</sup> In fact, V1-conditionals ‘look’ like embedded canonical adverbial clauses: [[V1] [V1]] and [[V-end] V2] have the same surface word order.

In our case study we have drawn on data from synchrony as well as diachrony – still seemingly distant fields under a generative perspective – showing that they provide converging evidence for the unintegrated status of V1-conditionals. In this vein, our paper can be read as a plea for systematically using diachronic developments as evidence for synchronic analyses alongside (properly) synchronic data in a modular theory of grammar.

## Notes

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1. Just like *wenn*-clauses, V1-clauses occur in temporal adverbial function (see e.g. König and van der Auwera 1988, Köpcke and Panther 1989).

2. Bhatt and Pancheva (2006: 639) describe a speech act conditional as “an implicit performative clause embedding the surface main clause, and this performative is the true consequent in a (hypothetical) conditional structure”. In German, some types of speech act conditionals may occur with V1- as well as V2-apodosis, cf. (10a) and (10b), but the pattern with V2-apodosis is more common (cf. Pittner 2003 for an overview). V2-apodosis also occurs after so-called relevance conditionals: *Wenn du durstig bist, Bier ist im Kühlschrank* ‘If you are thirsty, there is beer in the fridge’, which also disallows V1-conditionals. As for the general distribution of V2 apodosis, see Section 2.3.3.
3. *ex falso quodlibet/ex falso sequitur quodlibet* = “Anything follows from falsehood”. These sentences are also referred to as non-predictive conditionals in Dancygier (1993).
4. Examples of V1-clauses in concessive function are very rare. The following example is taken from Zifonun et al. (1997: 2313):
 

*War der Versuch auch missglückt, gab er die Hoffnung doch*  
 was the attempt also failed gave he the hope however  
*nicht auf.*  
 not up  
 ‘Although the attempt had failed, he still didn’t give up hope’
5. It should be mentioned that V1-clauses also occur in adversative adverbial function, where *wenn*-clauses are exceedingly rare (Zifonun et al. 1997: 2325). How this fact fits into a consistent picture of the semantics of *wenn*- vs. V1-clauses is a question for further research.
6. In factive and echoic conditionals the protasis has a factive reading. V1-clauses are very marked in echoic conditionals, which suggest that the truth-value of the V1-clause may not be presupposed. Thus, echoic conditionals can be argued to be bad for the same reason as the example in (12b). (Note that in this example, the V1-clause is followed by a V2-clause.)
 

??*Wisst ihr ohnehin schon Bescheid, warum fragt ihr noch?*  
 know you anyway yet notice why ask you still  
 ‘If you already know, why are you still asking’
7. Since it is generally assumed that German *wenn*-clauses frequently occur in preposed position as well (Pittner 1999), we carried out a further study based on COSMAS subcorpora (*St. Galler Tagblatt* (23.–26.04.1997) and the *Vorarlberger Nachrichten* (02.–07.1997)). It showed that there was no preference for pre- or postposing of conditional *wenn*-clauses: Of the 301 conditional *wenn*-clauses we found, 122 were preposed and 117 postposed. (62 concessive or elliptical *wenn*-clauses in parenthetical position were not included). We want to thank Melanie Stahr for her help with this study.
8. See Wöllstein (2008) for an explanation why unIntroduced adverbial clauses do not show an inversion of the prototypical semantic sequence: ‘condition’ precedes ‘consequence’.

9. When a *wenn*-clause occurs that precedes a V2-apodosis (cf. fn. 6), the *wenn*-clause is an unintegrated clause. Like V1-conditionals, those *wenn*-clauses are prosodically separated from the apodosis clause, cf. Günthner (1999: 215f.) and form their own focus-background structure. Note that continuous intonation in V1-clauses does not necessarily imply that the apodosis is syntactically embedded, cf. Truckenbrodt (2005: 279) and Günthner (1999: 215) for counterevidence. Günthner shows that continuous intonation even occurs with independent intonation contours in the cases of unintegrated *wenn*-clauses.
10. The negation particle *ni* is an X<sup>o</sup>-clitic that has procliticized to the finite verb.
11. Note however, that this word order pattern is still marginally possible with counterfactual conditionals (both *wenn* and V1), certain types of speech act conditionals and concessives (König and van der Auwera 1988). Cf. also fn. 6.
12. Note that in (21a) the subject pronoun *thú* has been inserted contrary to the Latin in the apodosis and thus the German word order in the apodosis differs from that in the Latin (given in the fourth line), which suggests that this is a native pattern.
13. The particle *eno* or *inu* is mainly attested in Tatian and Isidor, respectively. Neither of these texts displays any V1-conditionals, however. This is probably due to the fact that they are relatively close renderings of the Latin originals. Since in the corresponding Latin examples conditional clauses are always introduced by adverbial subordinators, the translators always chose to maintain this in their translations. By contrast, a substantial number of V1-conditionals occur in Otfrid's Gospel Book, which is a poetical synopsis of the Gospels in chronological order and not a translation, and in Notker's works, which are paraphrases and commentaries of the ancient texts rather than mere translations.
14. If one also counts in the V1-conditional, the surface word order pattern in the apodosis is in fact V3. For simplicity's sake, we always refer to the surface word order in the (part of the) apodosis or matrix clause that follows the preposed V1-conditional or adverbial clause.
15. In Lower German the demonstrative adverb that introduces the adverbial clause is sometimes followed by the overtly realized relative particle *the*, which suggests that it has not yet been re-analysed as an adverbial conjunction in C<sup>o</sup>, but is still an adverb phrase occupying SpecC.
16. In the present version, the online corpus comprises 40 texts, but when we carried out our corpus study, text 117 (*Deo Gratias*) was not included. So the corpus of the present study contained only 39 texts.
17. Recall that we use the term 'canonical' only to refer to those adverbial clauses that are introduced by an adverbial subordinator and have (structural) verb-final order.
18. The question of how the pattern with the correlative adverb in the prefield of the matrix clause should be analyzed is more difficult to answer. As long as we do not find any evidence that adverbial clauses could occupy the SpecC-position, it seems to be indisputable that in the AdvC-corr.adv.-V<sub>fin</sub> pattern, they are base-generated in their peripheral position and that only the correlative adverb is base-generated in the main-clause internal position in the middle field and moved to SpecC. Once

adverbial clauses themselves can be embedded in the main-clause and there arises a competition between the innovative embedding structure and the archaic adjunction structure, two analyses can be envisaged. In Present-Day German left-peripheral *wenn*-clauses, Frey (2004) distinguishes two constructions: Hanging Topic Left Dislocation (correlative adverb = *so*) and German Left Dislocation (correlative adverb = *dann*). It has been argued that in Hanging Topic Left Dislocation the dislocated XP (= the *wenn*-clause in this case) is base-generated in its peripheral position, whereas in the German Left Dislocation construction it is moved there from within the main clause. So, theoretically both these analyses could apply to the Adv-corr.adv.-V<sub>fin</sub> pattern as soon as the competition between adjoined and embedded clauses has arisen. It may in fact have been this ambiguity that led to the innovation of embedded adverbial clauses in the first place: the old adjunction construction may have been re-analyzed as an instance of German Left Dislocation of an embedded clause. It would be beyond the scope of this article to pursue this any further. In the case of non-sentential dislocated XPs, it can be demonstrated that the two constructions differ for instance with respect to the requirement of case agreement between the XP and the resumptive pronoun: with Hanging Topic Left Dislocation case agreement is optional, while with German Topic Left Dislocation it is obligatory. This diagnostic cannot be applied to adverbial constituents as they do not bear case. Frey points out that in the case of the *wenn*-clauses there are differences in the binding properties. Such intricacies can, of course, not be tested in historical corpora.

19. Note that according to Kroch (1989), the surface contexts of a given underlying change differ with the extent that they favour the innovative construction or not: contexts that favour the innovating option show a higher rate of overall use than others. What is the same is the rate of change for each context (Constant Rate Effect). Also the onset of the change occurs at the same time in all contexts. It could thus be argued that V1-conditionals are a less favourable surface context for the rise of embedding than canonical adverbial clauses so that it shows lower overall use of the innovative V1cond-V<sub>fin</sub> pattern. However, we would still expect attestations of the innovative pattern in the first three subperiods. It could be objected that the lack of these early attestations is an accidental gap in the data since V1-conditionals are, of course, less frequent than the various semantic types of canonical adverbial clauses taken together so that their total number may be too low for the relevant pattern to be realized in the data. Note, however, that the relevant examples do show up in the last subperiod in which the total number of V1-conditionals is only 44, while they are not attested in the first two subperiods in which the total numbers are more than 4 times as high (182/183).
20. In OHG V1-order often occurred in the context of certain types of verbs (unaccusative verbs, impersonal predicates) and in sentences with existential/presentational constructions. These types of V1-declaratives were lost in the MHG period as a result of independent developments such as the innovation of the prefield expletive *es* and a spread of the quasi-argument *es* (Axel 2007). Furthermore, there existed the well-

- known type of the narrative V1-declarative that also occurs in other (old and modern) West and North Germanic languages.
21. There is furthermore a third pattern in which the *kaum*-clause is followed by a subordinate clause with verb-end order introduced by the conjunction *als*. In a further variant the second clause is introduced by the co-ordinating conjunction *und* 'and', which is followed by the finite verb. Since it is unlikely that *und* is an XP occupying SpecC, this can be regarded as a variant of V1-order in the clause following the *kaum*-clause. (See Reis 2007 for a fuller treatment of Present-Day German *kaum*-clauses.)
22. Further phenomena where surface equivalence has been argued to play a role are backformation in word formation, pseudo-affixes (Wegener 2003), haplogy, agreement mismatches (Ehrich 2007).

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Online access to the digitalized texts:

<http://pcdas.ikp.uni-bonn.de:3000/Leitseite/index.html>

#### TüBaD/Z corpus

(Tübinger Baumbank Corpus. Treebank including c. 30.000 clauses from German newspaper *TAZ*) (tuebadz\_release3\_060713.cdat)

#### TIGER corpus

(Linguistic Interpretation of German corpus. Treebank including 50.000 clauses from German newspaper *Frankfurter Rundschau*) (tiger\_release\_dec05.cdat)

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