On the force of V2 declaratives[1]

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Abstract

This paper discusses a variant of German V2 declaratives sharing properties with both subordinate relative clauses and main clauses. I argue that modal subordination failure helps decide between two rivaling accounts for this construction. Thus, a hypotactic analysis involving syntactic variable sharing must be preferred over parataxis plus anaphora resolution. The scopal behavior of the construction will be derived from its "assertional proto-force," which it shares with similar "embedded root" constructions.

It is well-known that the syntactic position of finite verbs in German is sensitive to the distinction between main and subordinate clauses. V1 and V2 structures tend to be main clauses while V-final order usually indicates subordination. However, exceptions in both directions have repeatedly been reported and even studied in more or less detail.[2] Here I would like to further our understanding of declarative "embedded V2" clauses by investigating the question whether there are V2 relative clauses in German.[3]

I suggest that a proper answer to this question requires close analysis of minimal triples like the following. (Finite verbs are underlined in the relevant clauses.)

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[2] See Reis (1997) and references cited there.
[3] For earlier studies dealing with this constructions, see Brandt (1990) and Schuetze-Coburn (1984).

(1)   a. Das Blatt hat eine Seite (/), die ganz schwarz i̲s̲t̲.
         the sheet has one side   that entirely black is
         "That sheet of paper has one side that is entirely black"
      b. Das Blatt hat eine Seite (/), die i̲s̲t̲ ganz schwarz.
      c. #Das Blatt hat eine Seite (\). Die i̲s̲t̲ ganz schwarz.

While (1a) involves a standard V-final relative clause and (1c) displays the sequence of two independent main clauses, the status of (1b) is unclear. This will be reflected in the following terminological convention.

(2)   Terminological Convention
      a. Call the second clause in (1b) "V2 Relative" (V2R) if you want to emphasize properties it shares with its counterpart in (1a).
      b. Call the second clause in (1b) "Integrated Verb Second" (IV2) if you want to emphasize properties it shares with its counterpart in (1c).

Remaining neutral at this stage, I will conflate the two terms in (2) and refer to the sentence type at issue as "V2R/IV2."

To begin with, the following three properties of V2R/IV2 should be noted.

(3)   (Curious) Properties of V2R/IV2[i]
      a. V2R/IV2 has to be immediately preceded by non-final phonological boundary marking, indicated by (/).
      b. V2R/IV2 can only modify indefinite DPs in the putative matrix clause.
      c. V2R/IV2 is able to restrictively modify its antecedent.

(3a) is relevant for distinguishing V2R/IV2 from variants like (1c) and from its parenthetical counterparts, for which most of the generalizations discussed here do not hold.[4] The issue of quantifiers compatible with V2R/IV2 indicated in (3b) will not be taken up in this paper, although one way to account for it may be inferable from the analysis presented below.[5] (3c) can be substantiated by the observation that the initial clause in (1c) triggers the Horn-scale implicature (4).

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[4]   Fully distinguishing V2R/IV2 from parenthetical V2 clauses requires appeal to word order in addition. Thus, parentheticals can occur clause-internally immediately adjacent to the DP they modify. V2R/IV2, however, is confined to clause-final position. See Gärtner (1998, 2001a) for details. As for intonation, in clause-final position, parentheticals – as opposed to V2R/IV2 – may optionally be preceded by final phonological boundary marking.

[5]   For detailed discussion, see Gärtner (1998, 2001a).

(4)   The sheet of paper has no more than one side

(4) is strengthened by the need to restore informativity of an otherwise vacuous sentence, given world knowledge such as is expressed in (5).

(5) $\forall x$ [Sheet of Paper $(x) \rightarrow \exists Y$ [$Y = \{z|$Side of $(z, x)\} \wedge |Y| = 2]]$

The inconsistency of (4) and (5) then result in pragmatic anomaly (#). Crucially, implicature (4) does not arise with (1a) or (1b). This is evidence that there the initial clause is not evaluated in isolation. Instead the indefinite description is semantically intersected with the content of the adjacent clausal modifier, i.e. it is restrictively modified.

Another curious property of V2R/IV2 concerns scope.

(6)   (Curious) Properties of V2R/IV2[ii]
       V2R/IV2 forces its indefinite antecedent to take wide scope.

Thus, consider (7).

(7)   a. Maria möchte einen Fisch fangen (/), der   kariert   ist.
          Maria wants   a   fish   catch   that checkered is
          "Mary wants to catch a fish that is checkered"
       b. Maria möchte einen Fisch fangen (/), der ist kariert.
       c. Maria möchte einen Fisch fangen (\). Der ist kariert.

Here only (7a) is neutral wrt scope of the indefinite. (7b) and (7c), on the other hand, invariably induce a *de re* reading. In order to account for that effect, we may assimilate (7b) to (7c) on the basis of (8).

(8)   Paratactic Hypothesis (PH)
       V2R/IV2 is a case of parataxis.

In Gärtner (1998, 2001a) this has been fleshed out syntactically by postulating the existence of a (phonologically empty) functional category $\pi_{REL}°$, which takes V2R/IV2 as its complement and another clause containing an indefinite as its specifier. (9) applies such a paratactic analysis to (7b).

(9) $[_{\pi P}$ $[_{CP1}$ Maria möchte einen Fisch fangen] $[_{\pi'}$ $\pi_{REL}°$ $[_{CP2}$ der ist kariert]]]

On the basis of PH, (7b) – on a par with (7c) – can receive a DRT-style treatment (cf. Kamp & Reyle 1993), according to which the indefinite *einen Fisch* sets up a discourse referent which is anaphorically picked up by the pronoun *der* in the follow-up clause. Identifying the two variables

involved in this process is subject to standard conditions on accessibility. In the case at hand, only a wide scope indefinite provides an accessible variable. Thus, a *de re* reading is induced automatically.

A closer look at pronouns linking the two clauses provides a fairly subtle additional argument in favor of PH and the concomitant anaphora-resolution view of V2R/IV2. (1) has already shown that all three constructions tolerate weak demonstratives. (10) adds (relative) *w*-pronouns and personal pronouns, none of which can figure in V2R/IV2.

(10)   a. Das Blatt hat eine Seite (/), *welche* ganz schwarz <u>ist</u>.
　　　　b. *Das Blatt hat eine Seite (/), *sie* ganz schwarz <u>ist</u>.
　　　　c. *Das Blatt hat eine Seite (/), *welche* <u>ist</u> ganz schwarz.
　　　　d. *Das Blatt hat eine Seite (/), *sie* <u>ist</u> ganz schwarz.
　　　　e. *Das Blatt hat eine Seite (\). *Welche* <u>ist</u> ganz schwarz.
　　　　f. #Das Blatt hat eine Seite (\). *Sie* <u>ist</u> ganz schwarz.

This is summarized in (11) (*wd* = weak demonstrative; *w* = relative *w*-pronoun; *pers* = personal pronoun).

(11)   Pronoun Compatibility
　　　　a. Standard Relative Clauses:　　[+wd] / [+w] / [−pers]
　　　　b. V2R/IV2:　　　　　　　　　　[+wd] / [−w] / [−pers]
　　　　c. Cross-sentential anaphora:　　[+wd] / [−w] / [+pers]

The following paradigm, involving weak demonstratives again, provides the crucial contrast.[6]

(12)   a. *Es gibt Länder (/), da　　das Bier ein Vermögen <u>kostet</u>.
　　　　　It gives countries　there the beer a　fortune　　costs
　　　　b. Es gibt Länder (/), da <u>kostet</u> das Bier ein Vermögen.
　　　　c. #Es gibt Länder (\). Da <u>kostet</u> das Bier ein Vermögen.

While most weak demonstratives are (homonyms of) relative pronouns, the pronoun *da* ("there") is not. It can be used in contexts of cross-sentential anaphora but is banned from V-final relative clauses. Its compatibility with V2R/IV2 (12b) indicates that this construction patterns with cross-sentential anaphora.

However, the picture just outlined must be further complicated as soon as modal subordination is considered. The relevant facts are given in (13).

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[6] Note that the initial clause of (12c) lacks informativity, which results in pragmatic anomaly. Compare the status of (1c) above.

(13)   a. Maria möchte einen Fisch fangen (/), den sie essen <u>könnte</u>.
          Maria wants   a   fish   catch   that she eat   could
          "Mary wants to catch a fish that she could eat"
   b. *Maria möchte einen Fisch fangen (/), den <u>könnte</u> sie essen.
   c. Maria   möchte einen Fisch fangen (\). Den <u>könnte</u> sie essen.

It is well-known at least since Karttunen (1976) that the accessibility of discourse referents can be broadened by the use of modal (and related) operators in both the clause setting up the referent and the one containing the anaphor. This effect is shown in (13c). Thus, if V2R/IV2 is treated in essentially the same fashion as such a sequence of clauses, modal subordination failure in (13b) comes as a surprise.

Note, however, that property (3a) might already have made one suspect that V2R/IV2 does not give rise to text formation the way a sequence of sentences does. In fact, integration into the preceding clause is obligatory, given property (14).

(14)   (Curious) Properties of V2R/IV2[iii]
       V2R/IV2 forms an "information unit," definable as a single partition into focus and background, with its putative matrix clause.

This important observation has already been made in Brandt (1990: 88). (14) is one of the essential building blocks in developing a formal account for the facts in (13). Thus, according to Groenendijk & Stokhof (1989) (cf. Honcoop 1998, Sæbø 1999), modal subordination involves a propositional discourse referent provided by an antecedent clause and picked up by a covert anaphor in the restrictor of a modal operator in the follow-up clause.[7] Given (14), however, V2R/IV2 is itself part of the minimal proposition able to provide the required discourse referent. That

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[7]   Concretely, Groenendijk & Stokhof (1989: 38ff) argue that (i) should be given the meaning in (ii).
    (i)   Ein Tiger könnte hereinkommen (\). Der würde dich zuerst fressen.
    (ii)   Possibly (a tiger comes in) and necessarily (if a tiger comes in, it eats you first) Technically this is implemented as in (iii).
    (iii)   a.   *would* $\psi = \lambda p\, [\Box\, [^\vee D_{<s,\,<<s,t>,t>>} \Rightarrow \psi] \wedge {}^\vee p]$
           b.   *possibly* $\phi = £D\lambda p\, [\Diamond \downarrow {}^\vee D \wedge {}^\vee p](\phi)$
           "by dynamic conjunction" + "some plausible assumptions about the semantics of this extension of DIL" + "some obvious reductions":
           c. $\lambda p\, [\Diamond \downarrow \phi \wedge \Box \downarrow [\phi \Rightarrow \psi] \wedge {}^\vee p]$
    Crucially, the indefinite in ϕ becomes accessible for dynamic binding of a pronoun in ψ, within the scope of $\Box$.

is, V2R/IV2 is evaluated before the required discourse referent may become available. Therefore, modal subordination must fail and unacceptability of (13b) is predicted.[8]

Recall that I used a similar line of reasoning for describing the contrast between (1b) and (1c) wrt implicature (4). This suggests that a unified account of both sets of facts should be sought. Yet, my treatment of the scope facts in (7) relied on the mechanism of anaphora resolution and thus had to postulate evaluation of V2R/IV2 after evaluation of the putative matrix clause. Clearly, this account has to be given up in order to explain modal subordination failure in (13b) the way just outlined. I therefore suggest that PH be replaced by a hypotactic alternative.[9]

(15)   Hypotactic Hypothesis (HH)
       V2R/IV2 is a case of standard (relative clause) hypotaxis.

(16) illustrates the hypotactic analysis of (7b), to be compared with its paratactic counterpart in (9).[10]

(16) $[_{CP1} [_{CP1}$ Maria möchte $[_{DP}$ einen Fisch $t_i]$ fangen$]$ $[_{CP2}$ der ist kariert$]_i]$

Under HH, *der* inside V2R/IV2 would be considered a relative pronoun which shares the variable of its associated indefinite due to syntactic copying. Thus, the issue of anaphora resolution does not arise.[11]

As soon as we adopt HH, however, we are left with the question as to how V2R/IV2 and standard V-final relative clauses can be distinguished. Some such distinction is clearly needed for capturing the facts in (7). To meet this additional challenge, we have to consider property (17), the final one discussed in this paper.

(17)   (Curious) Properties of V2R/IV2[iv]
       V2R/IV2 is an instance of "embedded root phenomena" (a.k.a. "dependent main clause phenomena").

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[8]   As far as I can see, this account carries over to the presuppositional theory of modal subordination developed in Geurts (1999).

[9]   This move will leave the above mentioned pronoun facts without a satisfactory account.

[10]   HH will have to be supplemented with a theory of obligatory syntactic extraposition, an issue I won't be able to pursue here.

[11]   Gärtner (1998, 2001a) defends a hybrid approach combining PH with a DRS-update mechanism that simulates the operation of relative pronouns.

Building on earlier work in this area (e.g. Hooper & Thompson 1973, Wechsler 1991, Reis 1997), I would like to defend the following hypothesis.

(18) Proto-Force Hypothesis (PFH)[12]
V2 declaratives have assertional proto-force.

Assertional proto-force, I argue, is responsible for forcing V2R/IV2 together with its indefinite antecedent out of the scope of modal operators and negation (among others). Interaction with negation is documented in (19).

(19) a. Kein Professor$_i$ mag eine Studentin (/), [die ihn$_i$ nicht <u>zitiert</u>]
       No   professor likes a female student   who him not   cites
       "No professor likes a female student that doesn't cite him"
    b. *Kein Professor$_i$ mag eine Studentin (/), [die <u>zitiert</u> ihn$_i$ nicht]

Since the negative quantifier in (19) binds the personal pronoun, the modifying clause is forced into the scope of negation. This fails in the case of V2R/IV2.

My claim then is that combining HH and PFH adequately takes care of the distributional properties of V2R/IV2. We have already seen that, given (17) and HH, modal subordination is prevented. This accounts for the unacceptability of (13b). PFH prevents syntactic "scopal subordination," which predicts the unacceptability of (13b) and (19b), as well as the unavailability of a *de dicto* reading in (7b).

At this stage, I cannot present a formal theory underlying PFH. Yet, a number of adequacy criteria indicative of the structure of such a theory are fairly clear. Thus, consider (20).

(20) Adequacy Criterion for PFH
"Embedded Force Exclusion" should be met.

This well-known issue has recently been raised again by Green (2000, p.440).

(21) Embedded Force Exclusion (EFE)
If φ is either a part of speech or a sentence, and φ contains some indicator f of illocutionary force, then φ does not embed.

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[12] For another application of PFH, see Gärtner (2001b).

Thus, it is preferable to avoid simplistic direct endowment of V2 declaratives with assertional force (potential). Instead, appeal is made to the weaker concept of proto-forces whose behavior is determined by (projection) rules sensitive to the semantic make-up of the structures they get inserted into. At least the following four kinds of rule will be required.

(22)   Assertional Proto-Force Construal
    a. Unembedded assertional proto-force translates into assertional force (potential).
    b. Embedded assertional proto-force can be "absorbed" by assertional force (potential) if there is no intervener.
    c. Embedded assertional proto-force can be "absorbed" on arguments of predicates that denote acts of assertion etc.
    d. Non-absorbed assertional proto-force leads to semantic/pragmatic deviance.

(22a) deals with unembedded declarative V2 clauses. (22b) allows for adjunct clauses like V2R/IV2. These are to some extent "parasitic" on the force (potential) of their matrix clauses. Thus, directive illocutionary force (potential) does not seem to absorb assertional proto-force, as the contrast in (23) illustrates.

(23)   a. Geh zu einem Arzt (/), der das heilen <u>kann</u>!
       Go to a   doctor who that cure can
       "Go to a doctor that can cure that!"
    b. *Geh zu einem Arzt (/), der <u>kann</u> das heilen!
    c. Geh zu einem Arzt (\)! Der <u>kann</u> das heilen.
       "Go to a doctor! He can cure that."

(22c) takes care of complementation by V2 clauses, the content of which is not a speaker assertion. An example is given in (24).

(24)   Ich behaupte das ist so
    I   maintain that is so

One of the main theoretical burdens of (22), of course, rests on a notion of "intervener." Although I have singled out modals (7)/(13) and negation (19) as instances of that, I will have to leave this important topic for further research.[13]

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[13]   To the extent that material in the scope of a universal quantifier is not (directly) asserted, universal quantifiers may count as "interveners." It is therefore important to clarify whether V2R/IV2 can – under certain conditions (see Gärtner 1998, 2001a) – modify

On a more conceptual note, it remains to be seen where exactly proto-forces fit in with theories of sentence mood and illocutionary force.[14] Structurally, the proposal is related to Katz & Postal's (1964) idea to link "root transformations" like SAI in questions to special interpretive effects via an abstract Q-morpheme. However, taking into account a certain degree of embeddability, (17),[15] the proto-force approach has to be more indirect, a requirement which the construal rules in (22) are meant to fulfill. This way it should be possible to meet standard (EFE-related) objections against Katz & Postal (1964), such as Baker (1970) (cf. Groenendijk & Stokhof 1997).[16]

Summing up the main points, I have argued that V2R/IV2 should be given a hypotactic analysis. Its scopal behavior, resulting in modal subordination failure, must be derived from its assertional proto-force. Proto-force in turn should be linked to the embedded root nature of V2R/IV2. If such an analysis is on the right track it would also justify giving a positive answer to the question as to whether German has V2 relative clauses.

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an indefinite in the scope of a universal quantifier. This is shown in (i). (Note that one anonymous reviewer rejects these examples as fairly unacceptable.)

(i)   a. Jedes Haus hat ein Zimmer, [in dem   ist es gemütlich]
          Every house has a   room   in that$_{DAT}$ is it cosy

        b. Jeder Berg$_i$ hat eine Flanke, [über die   lässt er$_i$ sich leicht besteigen]
          Every mountain has a   face   over that$_{ACC}$ lets it itself easily climb
          "Every mountain has a face across which one can climb it easily."

However, a functional interpretation of the indefinite as proposed by Groenendijk & Stokhof (1984) would save the above account insofar as it removes the content of V2R/IV2 from the scope of the universal quantifier *every house*. This is indicated in (ii).

(ii) ∃f [R(f) ∧ ∀x.COSY-ROOM(f(x)) ∧ ∀y [HOUSE(y)→HAVE(y,f(y))]]

[14] For an overview, see Grewendorf & Zaefferer (1991).

[15] See Reis (1997), for a closer analysis of syntax-semantics mismatches in this domain.

[16] It seems to me that approaches like Brandt et al. (1992) are not fine-grained enough to deal with V2R/IV2, insofar as they analyze V2 and V-final declaratives as one "sentence type," which is given a uniform semantic interpretation and is endowed with a uniform specific illocutionary potential.

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