# On the question of subordination or coordination in V2-relatives in German

#### Nicholas Catasso & Roland Hinterhölzl\*

#### Abstract

In recent years, relative clauses with Verb Second (V2) have received a lot of attention. This is due to their peculiar syntactic and semantic properties. On the one hand, the content of the relative clause is asserted, indicating – given certain theoretical assumptions further addressed below – its non-subordinated status, on the other hand, they allow for a restrictive interpretation, indicating its subordinated status, since the restrictive reading under standard assumptions requires that the relative clause is interpreted within the DP heading it.

Moreover, V2 has been argued to be a root phenomenon and clauses containing V2 should thus display root-like properties. One important property of root clauses is that they – contrary to regular embedded clauses – can represent different types of speech acts: assertions, questions, commands and so on. It thus comes as little surprise that the best analysis of V2-relatives on the market, namely that by Gärtner (2001, 2002), posits an analysis in which two (main) clauses are coordinated, explaining the presence of V2 in the relative clause and relating it to the proto-assertional force of the relative. This syntactic analysis renders the semantic interpretation of V2-relatives a rather complex issue, since the content of the relative clause must be integrated into the interpretation of the DP heading it during the computation of the matrix clause to derive the correct restrictive interpretation.

We propose an alternative account that assumes that V2-relatives are regular subordinated relative clauses that due to the specific property of embedded V2 need to be extraposed and are interpreted in a high-adjoined position in the matrix clause. The restrictive interpretation of the relative clause will be argued to be derived from a matching analysis of relative clauses in which (weak) quantifiers contained in the head NP are interpreted in the embedded clause whose interpretational properties follow from the information structural properties of the main clause and the specific contribution of V2 in the relative clause.

#### 1 The phenomenon: subordination or coordination?

As is well-known, Standard German is characterized by an 'asymmetric' V2-system, in which main clauses generally display a Verb-Second (henceforth, V2) arrangement implying movement of the finite verb to some position in the left periphery (C° in a pre-Rizzi 1997 framework), while it remains in some lower head position in embedded clauses, generally identified as I°, which determines the so-called Verb-final (henceforth, Vfin) word order.¹

- $^{*}$  Nicholas Catatsso is responsible for chapters 1, 2 and 3 and Roland Hinterhölzl for chapters 3, 4 and 5.
- <sup>1</sup> Some cases apparently contradicting this generalization, which are not discussed here, are e.g. so-called insubordinated constructions (cf. Evans 2007, Truckenbrodt 2013, D'Hertefeld / Verstraete 2014), a phenomenon present in German, as well as in many other languages whereby a clause introduced by a complementizer and displaying a verb-final word order (e.g. *Dass du mir*

However, in colloquial German we find a class of relative clauses that may optionally exhibit a V2 word order (cf. Curme 1922, Sandig 1973, for a much more formal approach Gärtner 2001, 2002, Den Dikken 2005, Endriss/Gärtner 2005, Ebert, Endriss/Gärtner 2006), as in (1):

(1) Es gibt Menschen, **die** hängen sich Plakate ans Fenster

EXIST people that.NOM hang REFL posters at-the window
'Refugees welcome'.

refugees welcome
'There are people who put posters in their windows 'Refugees welcome'.'

(DLF, Febr. 25th, 2015)<sup>2</sup>

The structures introduced by the *d*-pronoun above are referred to as V2-relatives, or short V2Rs, in the present paper. The pronominal element occurring in clause-first position does not seem to be subjected to any case restrictions and may bear nominative as in (1), but also accusative and dative, or be part of a complex relative PP in which it receives the case assigned by the preposition selecting it. Stating the optionality of verb raising in V2-relatives basically amounts to the admission that the same structure in (1) may occur with Vfin, apparently without any significant change in meaning, as (2) illustrates:

(2) Es gibt Menschen, die sich Plakate ans Fenster hängen.

Since V2 is a so-called root phenomenon and given that root phenomena occur in clauses that represent speech acts and the latter are generally taken not to embed, the following questions arise: (i) Are V2Rs subordinated or coordinated? (ii) Do they represent separate and independent speech acts?

These questions are rather crucial for understanding what the trigger of V2 movement in embedded clauses is and how syntax and semantics interact at the interface in general. It is also important to address the question of whether V2 is a core property of V2Rs from which other properties follow, or whether the properties of V2Rs follow from its syntactic analysis as a coordinated structure, as has been proposed by Gärtner (2001) and became the standard analysis of V2-structures in other embedded clause types (cf. e.g. Antomo/Steinbach 2010, Freywald 2008, 2009, 2014 for causal and concessive adverbial clauses).

To answer these questions, let us briefly discuss the core properties displayed by V2Rs. In fact, V2Rs exhibit an intriguing combination of formal and

bloß nicht zu nahe kommst! ('Don't come too close!')) is conventionalized as a main clause; and complementizerless dass-clauses (Ich glaube, du spinnst ('I think you're mad')), which exhibit a matrix-clause order but are doubtlessly dependent on the preceding portion of syntactic structure (cf. Auer 1998).

<sup>&</sup>lt;sup>2</sup> The original empirical data for contemporary German discussed in the present paper are drawn from attested sources, primarily from transcribed interviews conducted by the German broadcast stations Deutschlandfunk and Hessischer Rundfunk, as well as German and Austrian newspapers e.g. *tlz, derwesten, Wiener Zeitung.* Occasionally, the data come from direct speech contexts in literary sources. The diachronic attestations were collected from selected works on the basis of their historical collocation.

distributional properties that make a coherent categorization extremely difficult. Gärtner (2001: 98–105 and subsequent work) points out that V2Rs, although not implying any substantial semantic interpretation per se, present at least four restrictions that crucially distinguish them from canonical relative clauses: (i) they may only appear sentence-finally, i.e. they are obligatorily extraposed (3); (ii) they may not appear in the scope of a negation or a question operator (4); (iii) they only modify indefinite, wide-scope nominal expressions (5); (iv) the pronominal *d*-element must be weak (6):

- a. Ich habe Unternehmer kennengelernt, die machen Milliarden I have entrepreneurs got-to-know who make Euro Umsatz pro Jahr. euro turnover per year
  - b. \*Ich habe Unternehmer, die machen Milliarden Euro Umsatz have entrepreneurs who make billions euro turnover pro Jahr, kennengelernt. per year got-to-know
    - 'I met entrepreneurs who record billions euro turnover per year.'

The first distributional feature is insofar curious as (restrictive) Vfin relative clauses, in short VfRs, in German may in general be extraposed, but also retain the structural DP-adjacent position in which they are base-generated. However, this is not the case in V2Rs, as the contrast between (3a) and (3b) shows. The exclusive linearization in a position following the matrix clause is also a property affecting other V2 clause types introduced by canonically subordinating elements: V2 clauses introduced e.g. by weil ('because'), obwohl/wobei ('although') and dass ('that'), as well as dependent complementizerless object clauses cannot be topicalized or moved to any other position either<sup>3</sup> (cf. e.g. Antomo/Steinbach 2010, Auer 1998, Freywald 2008, 2009). The same goes for Danish and Frisian object clauses with V2 (cf. Vikner 1995: 85 and De Haan/ Weerman 1986: 84, respectively)4.

As (4) shows, V2 leads to ungrammaticality if the clause occurs in the scope of a negative or interrogative operator (the NEG quantifier kein 'no' in (4a) and the silent INT SpecCP feature in (4b), respectively).5

<sup>&</sup>lt;sup>3</sup> This holds in the case of biclausal utterances. However, complementizerless object clauses may be topicalized together with their matrix element, be it a DP or a clause (cf. Reis 1997, Freywald 2013). The latter are cases of pied-piping of an extraposed clause that is subject to reconstruction. V2Rs will be argued to extrapose for semantic reasons, cannot be reconstructed at LF and are therefore argued to be different from standard cases of extraposition.

<sup>&</sup>lt;sup>4</sup> This restriction also affects Dutch causal clauses introduced by omdat 'because', a complementizer that apparently allows for both V2 and Vfin word orders with implications very similar to those in German weil clauses: cf. We hebben deze personage gekozen, omdat ze was een keizerin/\*Omdat ze was een keizerin, hebben we deze personage gekozen 'We have chosen this personage because she was an empress.'.

<sup>&</sup>lt;sup>5</sup> This does not hold for V2-arguments which are fine in interrogatives, as is illustrated by Glaubst du, die Leute kaufen das? (cf. Gärtner 2002 for some discussion).

(4) a. Kein Professor mag eine Studentin, die {\*zitiert} ihn no professor likes a student.FEM who cites him nicht {zitiert}.

NEG cites

'No professor likes a student who doesn't cite him.'

(Gärtner 2002: 107)

b. Mag Professor Müller eine Studentin, die {\*zitiert} ihn likes professor Müller a student.FEM who cites him nicht {zitiert}?

NEG cites

'Does Professor Müller like a student who doesn't cite him?'

This also seems to be a general restriction on V2 embedding in German, which has tentatively been ascribed to an assertive, epistemic feature possibly related to the notion of 'at-issueness' licensing V2 in the clause (cf. e.g. Truckenbrodt 2006, Antomo this volume).

Another interesting characteristic of V2Rs is that they can only modify indefinite, wide-scope DPs, namely singular nominal expressions introduced by an indefinite article (5a), or plural DPs introduced by indefinite or null (5b) quantifiers. Singular and plural pronominal forms are also possible (6a)–(6b). The introducing main clause preferably, but not obligatorily, contains an explicit presentational predicate, i.e. one of the type *es gibt* ('there is/are'), or verbs of perception (*sehen* 'see', *hören* 'hear'), or cognition (*wissen/kennen* 'know'), provided that all the relevant restrictions presented above hold:

(5) a. Das ist ein Buch, das hat keinen Punkt und kein Komma. this is a book that NOM has no full-stop and no comma 'This is a book that has no full stops and no commas.'

(DLF, Sept. 9<sup>th</sup>, 2010)

- b. Es gibt (viele) Leute, die haben tolle Ideen nur es

  EXIST many people who.NOM have great ideas only EXPL

  passiert relativ wenig.

  happens quite little

  'There are (many) people who have great ideas however, very little

  is going on.' (tlz, Jul. 6<sup>th</sup>, 2014)
- (6) a. Ich kenne einen, dem hat ein Zugunglück das Leben gerettet. I know one that DAT has a train-accident the life saved 'I know a man whose life was saved by a train accident.'

(character's direct speech from Eckhard Bahr 2007: 111)

b. Es gibt auch einige, die würde man gerne aus der EXIST also some that.ACC would IND.PRON.3.P gladly out the Geschichte schubsen.

story nudge

'There are some [passages] that one would just love to strike out.'

(amazon.de, online user's comment, Jun. 30<sup>th</sup>, 2012)

Moreover, the pronoun marking the clause is obligatorily a weak *d*-element, which in fact excludes e.g. *welch*-pronouns, the only other relative pronoun able to introduce restrictive relatives in German:<sup>6</sup>

- (7) a. Es gibt Probleme, die/ (\*welche) sind nicht lösbar.

  EXIST problems that.NOM that.NOM are NEG solvable
  - b. Es gibt Probleme, die/ welche nicht lösbar sind.

    EXIST problems that.NOM that.NOM NEG solvable are

    'There are problems that are not solvable.'

(Wiener Zeitung, Mar. 28<sup>th</sup>, 2013)

To account for these data, which at first sight speak in favor of a separate clause introduced by a demonstrative pronoun, if it were not for the fact that V2Rs require a restrictive interpretation, Gärtner (2001: 105) proposes a structure like (8), in which the whole construction is basically analyzed as a (syntactic) parataxis. In Gärtner's approach, the structure is represented by means of a so-called paratactic phrase  $(\pi P)$  hosting the first clause in its specifier and the second clause (including the d-pronoun) in its complement position<sup>7</sup>. CP<sub>2</sub> is endowed with what Gärtner calls 'assertional proto-force', sort of an assertive potential that allows for the presence of V2 in the second clause. This implies that the dpronoun is interpreted as a demonstrative, not as a relative pronoun. However, the head position of  $\pi P$  is not lexicalized by an overt element (in such a structure,  $\pi^{\circ}$  would presumably host either a coordinating conjunction or a (non-) final phonological boundary in the case of an asyndetic coordination, if we assume that phonology has its own representation in syntax), but is occupied by a silent relative operator switching the specification on the demonstrative in [Spec,CP<sub>2</sub>] from [+DEM] to [+REL] at some point of the derivation:

(8)  $\left[_{\pi P} \left[_{CP1} \text{ Das Blatt hat eine Seite } \left[_{\pi'} \left[_{\pi'} \text{ OP}_{REL} \right] \right] \right] \right]$  (Gärtner 2002: 105) 'The sheet has one side that is all black,'

The empty relative operator is crucial for deriving the restrictive interpretation of  $CP_2$  in a structure that basically represents the coordination of two assertions. The reader is referred to Gärtner (2001, 2002) for the details.

<sup>&</sup>lt;sup>6</sup> It is to be noted, however, that *welch*-relative clauses are very uncommon, if not non-existent, in modern spoken German, and are gradually disappearing from many written varieties, as well, which is plausibly the reason why only clauses introduced by *d*-pronouns are possible in contemporary German.

 $<sup>^7</sup>$  The assumption that coordinate structures are  $\pi Ps$  (or CoordPs, or ConjPs, or &Ps, as they have been variously defined in the literature) is currently almost universally accepted within the generative model (*contra* e.g. Borsley 2005). However, it is not the only formalization that has been proposed: Munn (1993 and subsequent work) analyzes coordinations as implying right adjunction of a ConjP to the first XP-conjunct, so that the first conjunct is merged outside of the coordinated items; on the other hand, Progovac (1997) assumes that each of the conjuncts projects a CoordP and each CoordP is adjoined to an empty head to account for the recursive, in principle 'serialized' character of coordination.

This analysis has been assumed to hold for the representation of V2Rs and has been adopted, in slightly different terms, by many authors for the formalization of other V2 embedding phenomena (cf., among many others, Antomo/Steinbach 2010, Freywald 2008, 2009). In the present paper, we propose an alternative scenario for the analysis of V2Rs, which implies a hypotactic construal of this structure and can account without ado for the fact that V2Rs can be found in embedded domains (cf. also Gärtner 2001, 2002).

Furthermore, this analysis leaves open the question as to the exact role of the null relative operator in the head position of  $\pi P$ , whose postulation seems stipulative in that it does not really seem to be attested, at least not with the very same implications, in any other language or grammatical pattern of German.<sup>8</sup> Its structural position is also quite controversial: why should there be a silent relative operator, whose presence may not be proven by means of additional syntactic tests, in the head of a coordinative phrase? Are coordinative phrases, irrespective of whether we assume the standard view or a view à la Munn (1993) or Progovac (1997), not hallmarked by the fact that they are headed by paratactic elements?<sup>9</sup> In what follows, we will propose evidence for a hypotactic analysis of V2Rs with d-pronouns.

#### 2 Evidence for a hypotactic analysis of V2Rs

In the first place, the restrictive nature of V2Rs forces an interpretation in which matrix and *d*-clause may not be interpreted as conjuncts of a parataxis. If we consider structures like those in (10) and make the relation between clause<sub>1</sub> and clause<sub>2</sub> explicitly coordinative by means of a paratactic conjunction like *und* ('and') as in (11), we see that the reading of the whole utterance changes (11a) in that the restrictivity of the clause gets lost (= Apfeldorf has many houses, and all the houses in the village are empty), or becomes pragmatically infelicitous (11b) because the resulting meaning would imply that the leaf has only one side and that this side is completely black. Also note that V2Rs exhibit the same prosodic contour, a non-final phonological boundary intervening between the two clauses, as their Vfin counterparts, which is not (necessarily) the case in such clausal coordinations as (11a)-(11b) (Gärtner 2002):

- (10) a. Apfeldorf hat viele Häuser, (/) die stehen leer. Apfeldorf has many houses that NOM stand empty 'Apfeldorf has many houses that are empty.'
  - b. Das Blatt hat eine Seite, (/) die ist ganz schwarz. the leaf has a side that.NOM is all black

    'That leaf has one side that is all black.' (Endriss/Gärtner 2005: 196)

 $<sup>^{8}</sup>$  However, Zwart (2005) points out that in Dutch the 'weakly coordinative' element en is possible in the same position as Gärtner's silent operator.

<sup>&</sup>lt;sup>9</sup> In the case of asyndetic coordinations, it may be assumed that the paratactic phrase is headed by a phonological silent element which determines a pause between the two conjuncts. As we will see below, this is not the case in V2Rs.

(11) a. Apfeldorf hat viele Häuser, (\) und die stehen leer.

Apfeldorf has many houses and these.NOM stand empty
b. #Das Blatt hat eine Seite, (\) und die ist ganz schwarz.

the leaf has a side and that.NOM is all black

With respect to Gärtner's observation that only weak *d*-pronouns may act as introducers in V2Rs, one legitimate question would be, much more than why *welch*-pronouns cannot perform the same function (cf. fn. 9), why personal pronouns are not allowed to, given that they display a frequency in usage that is similar to that of *d*-pronouns if they function as demonstratives. In a structural model implying a syntactic coordination whose strictly paratactic reading is somehow 'attenuated' by a silent operator in the position normally occupied by a conjunction, it would be thinkable that this could force the personal pronoun into the same restrictive interpretation. However, this is not the case:

(12) Die Stones sind Leute, die/??sie haben ihre Ohren überall the Stones are people who/they have their ears everywhere hingehalten.

held-out

'The Stones are people who were always very open to different styles.'
(Hessischer Rundfunk, Jul. 12<sup>th</sup>, 2012)

Interestingly enough, in ENHG and NHG welch-relatives – which coexist with d-introduced relatives in these periods – may display a V2 arrangement. Given that at least between the 17<sup>th</sup> and the 19<sup>th</sup> century both elements occur as first elements in VfRs and (much less often) in V2Rs, we may assume that welchpronouns have lost the (potential) ability to introduce V2 clauses in light of the fact that they have gradually disappeared from spoken German. In modern German, no dialectal variety seems to have retained welch-relatives, which suggests that it never was the dominant form in everyday usage. Of course, the limited statistical incidence found in texts from ENHG and NHG may depend on the fact itself that written texts can only very marginally render the structures of spoken language. In any case, the presence of welch- (and d-) relatives with V2 word order in that period, in which word-order constraints are completely established, suggests at least two fundamental premises: on the one hand, that it is not at all a new phenomenon of German (also cf. Sandig 1973); on the other hand, that V2 is not necessarily incompatible with subordination, given that welchpronouns are found in restrictive relatives like (13a)–(13b)<sup>10</sup>, which we may hy-

<sup>&</sup>lt;sup>10</sup> Welch-, as well as d-pronouns, with relative function are also found in non-restrictive V2 clauses with definite and indefinite antecedent in ENHG and NHG, which seems to indicate that the use of this structure was much more widespread than in contemporary High German. Note that the examples in (13) may not be assumed to represent cases of Verb Raising or extraposition (movement of complements and adjuncts into the Nachfeld) in the spirit of Axel (2007): in both attestations, the welch-pronoun occupies SpecCP and the finite verb clearly lands in C°, since it precedes the negative marker.

pothesize are 'more integrated' than appositive constructions in that they are obligatory for identifying the antecedent's reference:

(13) a. Diese Lection ist ein Lobspruch S. Pauli, welcher sol nicht this lecture is an encomium St. Paul. GEN which shall not seyn ein Exempel, daß sich ein jeder rühmen sol seines be an exemplum that REFL anyone praise shall his. GEN Gefallens, denn [...]

'This lecture is an encomium by St. Paul which is not to be interpreted as an exemplum that anyone may exalt themselves, for...'

(Zacharias Praetorius, 1577)

b. Ich glaube eine heilige christliche Kirche, welche kann nicht I believe a holy christian church which can not falsch seyn, und müßte doch falsch seyn.

fallacious be and should MOD.PRT fallacious be
'I believe in a holy Christian church that cannot be fallacious and should yet be fallacious.' (Johann Georg Walch, 1741)

Gärtner (2001) also notes that the weak pronouns introducing V2Rs are not always formally identical to relativizers, strongly indicating that a hypotactic analysis of this structure is not on the right track. A very common grammatical pattern of spoken German is the one exemplified in (14a), in which a local adverb, da (formally 'there'), occurs in the very same position as the d-pronoun in V2Rs and follows a presentational predicate of the type mentioned above, but, differently from the latter, may not introduce VfRs (14b):

- (14) a. Es gibt Städte, da fühlt man sich einfach wohl.

  EXIST places da feels. IND.PRON.3.P REFL simply good
  - b. \*Es gibt Städte, da man sich einfach wohl fühlt. 'There are places where one just feels good.'

However, at least in ENHG and NHG da clauses often displayed a Vfin word order, as in (15), which seems to imply that da was an invariable relative pronoun with locative interpretation (along the lines of Eng. where or It. dove). In other words, the fact that da prevalently selected a Vfin word order and the clause received a restrictive interpretation entails that this structure emerged as a restrictive relative clause and only the V2 variant, which was already present in the system (cf. (16)), has survived until contemporary spoken German, so that the introducing element is still interpreted as a relative pronoun with obligatory V-movement. Note that the optional Vfin arrangement of da-clauses in ENHG and NHG did not depend on the Vfin (15a) or V2 (15b) word order, i.e. on the subordinate or independent status, of their matrix clause<sup>11</sup>:

 $<sup>^{11}</sup>$  The same goes for V2 da-clauses in contemporary German, which may modify a noun occurring in an independent or in a subordinate construction. This also excludes that da-structures with V2 word order may be interpreted as simple conjuncts of an asyndetic coordination. Cf. Ich kenne es

- (15) a. Biß ich komme, und hole Euch in ein Land, wie Euer Land ist, till I come and take you in a land as your land is da Korn und Most innen ist [...].

  da grain and must within is

  'Till I come and take you to a land, a land like yours, in which grain and must are.'

  (Luther Bible, 1545, Isaiah 36:17)
  - b. So liegt auch nicht weit davon ein Fluß, da man so lies also NEG far therefrom a river da IND.PRON.3.P süsses und frisches Wasser haben kan. sweet and fresh water have can 'Not far from there is a river where one can find fresh water.'

    (Hans Jacob Christoffel von Grimmelshausen, 1695)
  - c. Es giebt Staaten da man in dem Irthum steht.

    EXIST states da IND.PRON.3.P in the fallacy stands

    'There are states that are at fault.' (August Wilhelm Hupel, 1782)
- (16) a. Von den Castel fürbaß auß hinhoch ob der Statt ist ein Ort from the castle straight out to-up on the city is a place da ligen große dicke Mauwren auffhauffen.

  da lie big large moors on-pile

  'On the way from the castle walking up towards the city, there is a place where large moors are, all piled up.'

(Sigmund Feyerabend, 1584)

b. "Mein Kind, es giebt einen Ort, da finden Herzen Ruhe.

my child EXIST a place da find hearts calm

Denk' an das Kloster!"

think of the monastery

'Son, there is a place where hearts find peace. The monastery!'

(Georg Gottlieb Schirges, 1843)

A further aspect mainly overlooked in the literature is the fact that V2Rs may also have an antecedent appearing in an embedded clause, e.g. in a complement *dass*-clause selected by a perception verb (17a) or even by a DP (17b):

(17) a. Ich hab ja schon davon gehört, dass es Leute *I have MOD.PRT already PREP.OBJ heard that EXPL people* gibt, die haben ein sogenanntes Nahtoderlebnis. *EXIST who.NOM have a so-called near-death-experience*'I've heard that there are people who undergo a so-called near-death experience.' (first-person narration from Christian Manhart 2011: 14.)

*nur aus meiner Heimatstadt, dass es da Stadtviertel gibt, da wohnen nur Russen* (mtb-news.de, online user's comment, Jul. 12<sup>th</sup>, 2006).

b. Dann ist beim Vorsprechen das Problem, dass es Leute then is at-the audition the problem that EXPL people gibt, die sprechen phantastisch vor, können aber EXIST who.nom audition fantastically V.PRT can but eigentlich nicht viel.

actually NEG much

'And then we always have the problem that there are people who de

'And then we always have the problem that there are people who do very well at the audition, but in fact are not very talented.'

(Bernadette Loacker 2014: 332)

With respect to the structures in (17), Gärtner's (2001) approach would, in fact, posit more problems than it sets out to solve. As already mentioned, such an analysis would amount to a construal in which the *dass*-clause and the *d*-clause constitute as a  $\pi P$ , i.e. as a syntactic unit, the coordinated complement of a verb and a DP, respectively, in (17a) and (17b).

Irrespective of the relative specification licensed on the weak *d*-element that Gärtner postulates, it is a well-known feature of coordinated phrases that the two conjuncts must be of the same syntactic type (cf. Chomsky's (1957: 36) Law of the Coordination of Likes, as well as much subsequent work). Here, we would have a coordination of an embedded Vfin COMP-introduced clause and a V2 main clause. The problem here is that in difference to other cases of asymmetric coordination, one clause represents a mere proposition while the other clause supposedly represents a speech act.<sup>12</sup>

If on the other hand, it is assumed that the clauses in (17) involve the coordination of two main clauses, that is, of the clause *Ich habe ja schon davon gehört, dass es Leute gibt* and the clause *die haben ein sogenanntes Nahtoderlebnis* in (17a), then it is not clear how the relative operator would find its antecedent in the syntax. Gärtner (2001) proposes a DRT-based anaphoric approach to this problem with the d-pronoun picking up an accessible DR.<sup>13</sup>

<sup>&</sup>lt;sup>12</sup> Note that in the asymmetric coordination in (i) both conjuncts constitute (presupposed) background information for the assertion in the main clause (cf. Höhle 1983, 1991; Büring / Hartmann 1998; Reich 2009a, 2009b): Wenn es klingelt und da steht der Gerichtsvollzieher vor der Tür, dann können einem schon die Ohren schlackern.

<sup>&</sup>lt;sup>13</sup> An anonymous reviewer objects that V2Rs do not allow for coordination and stacking. This assumption is somewhat controversial. The coordination of two V2Rs is, in fact, possible by pronoun dropping in the second conjunct (cf. *Ich kenne Leute, die wohnen schon zehn Jahre in Berlin und die waren noch nie auf dem Fernsehturm*). Moreover, many speakers judge stacked V2Rs as grammatical in spoken usage and this structure is variously attested even in conceptually spoken written sources. Cf. the following examples:

<sup>(</sup>i) Da gibt es Städte, da wohnen Menschen drin mit hellen und klugen Köpfen, die gehen den großen Geheimnissen nach und wissen, wie die Welt aus des Schöpfers Händen sprang [...]. (character's direct speech from Maria Waser 1913: IV)

<sup>(</sup>ii) Und als ob das nicht schon genug wäre, kennen sie Leute, die kennen Leute, die kennen Leute, die würden die beiden auch gerne kennen. (tlgg.de, user's comment, Jan. 11<sup>th</sup>, 2016)

In what follows, the subordinative hypothesis only sketched so far is introduced and further motivated by looking at an interesting parallelism between the semantic properties of V2Rs in German and the occurrence of indicative vs. subjunctive mood in Italian relative clauses.

# 3 On the parallelism between German V2Rs and Italian relatives with Indicative mood

In this section we will first address the question of whether there is a major semantic difference between V2Rs and VfRs in German. The answer to this question will lead us to the observation that similar semantic distinctions and syntactic restrictions apply to relative clauses marked with indicative mood in Italian.

Given the restrictions on V2Rs pointed out in Gärtner (2001) and discussed above, the question arises if - in a context in which both types of relatives are licit - major interpretational differences can be detected. In other words, how does (18a) differ from (18b)?

- (18) a. Apfeldorf hat viele Häuser, die stehen leer
  - b. Apfeldorf hat viele Häuser, die leer stehen

In this respect, it is important to note that embedded in modal contexts, VfRs in German allow for a *de re* and a *de dicto* interpretation of the indefinite head noun (19a), while the head noun of V2Rs is restricted to a *de re* reading (19b), as pointed out by Gärtner (2001: 138, 2002: 35).

- (19) a. Hans sucht eine Frau, die blaue Augen hat. (de re, de dicto)

  Hans looks-for a woman who blue eyes has
  - b. Hans sucht eine Frau, die hat blaue Augen. (de re, \*de dicto) Hans looks-for a woman who has blue eyes 'John is looking for a woman who has blue eyes.'

As is illustrated in (20), a similar contrast is observable in indicative and subjunctive relative clauses in Italian: while the relative clause marked with subjunctive mood only allows for a *de dicto* interpretation, the relative clause marked with indicative mood, like V2Rs in German, only permits the *de re* reading<sup>14</sup>.

- (20) a. Gianni cerca una donna che abbia gli occhi blu. (de dicto) John looks-for a woman who has.SUB the eyes blue
  - b. Gianni cerca una donna che ha gli occhi blu. (de re) *John looks-for a woman who has.IND the eyes blue* 'John is looking for a woman who has blue eyes.'

<sup>&</sup>lt;sup>14</sup> Note that in restrictive relative clauses, as well as in other embedded contexts, indicative may occasionally occur en lieu of subjunctive mood in colloquial spoken Italian. In the present discussion, we will take into consideration only those syntactic contexts that require (cf. e.g. 24a) or categorically exclude (cf. e.g. 28b) subjunctive.

Since German has lost the subjunctive in relative clauses, the indicative has become ambiguous and V2 apparently serves to disambiguate the V-final clauses. We will leave this issue for future research.

It is important to note that the parallelism is not restricted to Italian and that similar effects obtain in other Romance languages, as is reported in Quer (1998) and Zwart (2005). (21), taken from Catalan, illustrates that the head noun of a relative clause marked with subjunctive cannot take wide scope with respect to a modal operator in the main clause, while the contrast in (22) illustrates that a relative clause marked with indicative mood licenses the marker a on the head noun which is generally taken to indicate a specific interpretation of the indefinite DP.

- (21) Vull un regal que faci contents els meus pares. [I] want a present that make.SUB happy the my parents (i)  $^{OK}$  want(I,  $[\exists x: present'(x) \land make-happy'(x, my-parents')]$ ) (ii)  $*\exists x[(present'(x) \land make-happy'(x, my-parents')) \land want(I, x)$
- (22) a. Estamos buscando una intérprete que sepa tamil.

  [We] are looking-for an interpreter who know.SUB Tamil

  (Castilian)
  - b. Estamos buscando a una interprete que sabe [We] are looking-for SPEC.MARK an interpreter who know.IND tamil.

    Tamil

The parallelism in interpretation between V2Rs and VfRs in German on the one hand and Ind/Subj-relatives in Italian on the other hand is also corroborated by the fact that the contexts that require Subjunctive in Italian do not admit V2 in German (also cf. Meinunger 2004: 23). These include relative clauses with a final or a consecutive interpretation, as is illustrated in (23) and (24), respectively.

- (23) a. Prendo un autobus che mi porti in centro.

  [I]take a bus that CL.PERS.PR.I.P.ACC take.SUB to centre

  b. Ich nehme einen Bus, der mich ins Zentrum bringt.

  I take a bus that PERS.PR.I.P.ACC to-the centre takes

  c. \*Ich nehme einen Bus, der bringt mich ins Zentrum.

  I take a bus that takes PERS.PR.I.P.ACC to the centre.
  - I take a bus that takes PERS.PR.1.P.ACC to-the centre 'I take a bus that takes me downtown.'
- (24) a. È difficile trovare un vestito che lei non possa indossare is difficult find a dress that she NEG can. SUB wear
  - b. Es ist schwierig, ein Kleid zu finden, das ihr nicht steht. it is difficult a dress to find that PERS.PR.3.P.DAT NEG suits
  - c. \*Es ist schwierig, ein Kleid zu finden,das steht ihr nicht.

    It is difficult a dress to find that suits PERS.PR.3.P.DAT NEG

    'It is difficult to find a dress that doesn't suit her.'

Furthermore, we note that the matrix contexts that exclude V2Rs in German, namely clauses containing a negative or interrogative operator require subjunctive mood in the relative clause in Italian, as is illustrated in (25) and (26).

- (25) a. Non c'è nessuno che sia meglio di te.

  NEG EXIST nobody who is.SUB better than you
  - b. Es gibt niemanden, der besser ist als du.

    EXIST nobody who better is than you
  - c. \*Es gibt niemanden, der ist besser als du.

    \*EXIST nobody who is better than you\*

    'There is nobody who is better than you.'
- (26) a. Esiste un vestito che ti piaccia veramente?

  EXIST a dress that W.PERS.PR.2.P.DAT pleases.SUB really
  - b. Gibt es überhaupt ein Kleid, das dir gefällt?

    EXIST MOD.PRT a dress that PERS.PR.2.P.DAT pleases
  - c. \*Gibt es überhaupt ein Kleid, das gefällt dir?

    EXIST MOD.PRT a dress that pleases PERS.PR.2.P.DAT

    'Is there a dress that you like anyway?'

Since V2Rs in German and indicative relatives in Italian not only permit the same interpretations but are also subject to the same distributional restrictions, it seems plausible to propose a unified explanation for these facts in German and Italian (cf. Meinunger 2004 for a similar approach). The picture that we obtain also seems to indicate that the central properties of V2Rs in German should indeed be connected with or derived from the effect of V-movement in German, leading to the important question of what the role of V2 movement in parallel to the effect of the indicative/subjunctive distinction in Italian relative clauses is.

Farkas (1992: 102), investigating the role of the indicative/subjunctive distinction in embedded clauses in Romance, proposes that the choice between Indicative and Subjunctive depends on whether the worlds that anchor the embedded proposition are close (Ind) or remote (Subj) from  $W_R$ , with  $W_R$  = actual world.

We propose that V2 indicates that the embedded event is anchored to the utterance situation, leading to a *de re* judgment and requiring that the embedded clause is moved out of the c-command domain of the matrix IP via extraposition (to be anchored on a local relation), while indicative and subjunctive mood in non-V2Rs convey a bound interpretation of the event argument in the embedded domain with the effect that the indefinite head noun receives a *de re* and a *de dicto* interpretation, respectively.

In particular, we propose that V2 indicates that the embedded event is epistemically anchored to the speaker, implying that the discourse commitment to provide the necessary evidence for the associated proposition lies with the speaker, that is, that the embedded proposition is asserted. For VfRs, on the other hand, we propose that here the embedded event is epistemically anchored to the common ground, implying that the relevant proposition is presupposed to be

given by the speaker and the hearer or is regularly accommodated by the hearer, if he has no evidence to the contrary.

Before we spell out our analysis of V2Rs in the next section, we simply note that the parallelism between V2Rs in German and the mood distinctions in relative clauses in Italian also extends to the licensing of focus particles. Gärtner (2001) and Antomo & Steinbach (2010) note that a head noun of a V2R cannot be modified by the focus particle *nur*, as is illustrated in (27a), while additive particles like *sogar* und *auch* are fine with V2Rs, as is illustrated in (28a). It is interesting to note that *solo* (the Italian pendant of *nur*) requires subjunctive mood in the relative clause, while the additive particles *addirittura* ('even') and *anche* ('also') are only compatible with indicative mood, as is illustrated in (27b) and (28b), respectively.

- (27) a. ?? Das Blatt hat nur eine Seite, die ist ganz schwarz.

  the sheet has only one page that is all black
  - b. OK II foglio ha solo una pagina che sia nera.

    the sheet has only one page that is black
    'The sheet has only one side that is (all) black.'
- (28) a. Das Blatt hat sogar/auch eine Seite, die ist ganz schwarz. the sheet has even/also one page that is all black
  - b. \*Il foglio ha addirittura/anche una pagina che sia nera.

    the sheet has even /also one page that is black

    'The sheet even/also has one page that is (all) black.'

#### 4 Towards a subordinating analysis of V2Rs

In this section, we show how the restrictive interpretation of V2Rs can be obtained and how their core properties can be derived from the presence of V2 movement. If we apply the standard analysis of a restrictive relative clause to V2Rs, the interpretation given to V2 above requires that the relative clause is extraposed obligatorily to escape from the scope of matrix operators, deriving immediately one of the core properties of V2Rs.

Note, however, that this maneuvre seems to impede the restrictive interpretation of the relative clause that requires that the latter is interpreted in a DP-internal position. To overcome this problem, we will propose a matching analysis of relative clauses and argue that the restriction that only weak quantifiers and indefinites may head V2Rs follows directly from this approach to relatives clauses since it is these determiners that can be argued to occur within NP in the embedded clause that is matched with the NP in the matrix clause. Furthermore, we will argue that the scope paradox described above – wide scope for the interpretation of V2 and narrow scope to obtain the restrictive interpretation – is resolved in that weak quantifiers contained in the heading NP are interpreted in the relative clause where they receive a proportional (or strong) interpretation due to the particular information structural properties of V2Rs.

To prepare the ground, we will first discuss information structural effects of the indicative/subjunctive alternation in Italian in the following subsection.

#### 4.1 Mood distinctions and the information structure in Italian relatives

If we ask the question whether the mood distinction in Italian relatives has any impact on the information structural interpretation of the relative clause itself, we note that the subjunctive indicates that the material in the relative clause is obligatorily presupposed, while the indicative indicates that the material in the relative clause is (preferably) asserted, as is illustrated in (29). As is indicated in (30), (29ab) differ crucially in which material is mapped into the restriction of the quantifier *few* and which material is mapped into its nuclear scope. The inverted scope reading in (29b) is crucially enforced by putting a focus accent on the verb in the relative clause in Italian.

- (29) a. In quel period ho incontrato poche persone che fossero ricche.

  In that period [I] have met few persons who were.SUB rich
  - b. In quel period ho incontrato poche persone che ERANO ricche. *in that period [I]have met few persons who were.IND rich* 'At that time, I met few people that were rich.'
- (30) a. for few people that were rich, it holds that I have met them
  - b. for few people that I encountered, it holds that they were rich

In other words, we are dealing with an effect of quantificational variability induced by focus (cf. among many others Herburger 2000) where material that is focussed is mapped onto the nuclear scope, as is illustrated in (31).

- (31) a. I know many Swedish Nobel prize winners.

  (= for many Swedish Nobel prize winners, it holds that I know them)
  - b. I know many SWEDISH Nobel prize winners.(= for many Nobel prize winners that I know, it holds that they are Swedes)

In the present approach, we can account for this effect by assuming that the extraposition of the relative clause, forced by V2, prevents it from being piedpiped by quantifier raising of the head noun. While this account is on the right track, we think it is not complete yet, since a) it cannot explain all the restrictions on V2Rs and b) it fails to explain how V2Rs in German and indicative mood in Italian relatives – despite all their similarities – differ in one important respect, as is illustrated by the contrast between (29b) and (32a), rendering the meaning of (29b) in German, a German native speaker is inclined to use a V2R – obviously to ensure that the material in the relative clause does get asserted – but the result is ungrammatical.

- (32) a. \*In dieser Zeit begegnete ich wenigen Männern, die waren reich.
  - b. %In dieser Zeit begegnete ich Männern, davon waren wenige reich.

Note, however, that a native speaker being asked to paraphrase the meaning of (29b) could use the sentence in (32b), where the head noun is a (indefinite) plural NP and the respective quantifier appears within the V2R that is asserted. We take this observation as a leading idea for the correct analysis of V2Rs in German and will thus propose in the following section a matching analysis of a restrictive relative clause in which the weak adjectival quantifier is interpreted in the relative clause.

#### 4.2 The matching analysis of restrictive relative clause

Two distinct analyses have been entertained for relative clauses: the *matching* analysis, which postulates the presence of two heads, one external and one internal to the relative clause (cf. Lees 1961, Chomsky 1965) and the *raising* analysis, which assumes the presence of a single head, internal to the relative clause, which raises to the front of the relative clause (Schachter 1973, Vergnaud 1974). Later, a third analysis was advanced which assumes a single head, external to the relative clause, and an empty operator in the relative clause (as in Chomsky 1977).

Given that idioms and bound pronouns point to the interpretability of the heading NP in the relative clause, as illustrated in (33), restrictive relative clauses seem to call for a raising or matching analysis. We adopt the matching analysis, illustrated in (34), since it can account without any problems for the necessary extraposition of V2Rs and, most importantly, it derives us for free the determiner restrictions on the head noun in V2Rs, as we will see below.

- (33) a. John was satisfied by the headway that Mary made.
  - b. Mary liked the pictures of himself that John sent.
- (34)  $[_{DP}$  the  $[_{NP}$  book]  $[_{CP}$   $[_{NP}$  book]  $[_{C'}$  that John read t ]]] (Hulsey/Sauerland 2002)

Cinque (2013) argues that finite restrictive relative clauses (and amount relatives) are merged above weak determiners, in Milsark's (1974) sense, that is, above multal and paucal quantifiers, cardinals, the indefinite determiner and adjectives, and below strong determiners (definite articles, demonstratives, universal quantifiers, etc.) in a single double-headed structure underlying the different types of relative clauses attested cross-linguistically.<sup>15</sup> For Hulsey/Sauerland

<sup>&</sup>lt;sup>15</sup> As evidence, he points out that consistent head-final and consistent head-initial languages show the merge position of such relatives on their sleeves: the order Dem RC Num A N is found in several Caucasian, Cushitic, Dravidian, Tibeto-Burman, Turkic, Uralic (and other OV) languages, while the order N A Num RC Dem is found in several Mon-Khmer, Tai-Kadai, Niger-Congo, Austronesian (and other VO) languages.

(2002), matching is a mechanism of ellipsis, that is, a process of phonological deletion under identity. In English and German, it is the occurrence of the NP in the relative clause that is deleted.

We argue that the crucial point of the matching mechanism involves the identification of the event arguments of the internal and external head. To this end, let us briefly discuss the interpretation of a standard restrictive relative clause in German as in (35).

#### (35) Maria las das Buch, das ihr Otto empfahl

We can derive the correct interpretation of the relative DP in (35) and the relevance of the indicative/subjunctive distinction in general, if we assume that discourse referents (DRs) are individualized with respect to events. We assume that nominals contain an additional event argument that, if not bound by an existential quantifier or a relative operator, is identified by being assigned a value by an assignment function, as is standardly assumed for the interpretation of referential categories. An NP that is assigned a value for its event argument denotes the set of individuals X with  $X = \{x \mid x \text{ is an } N \text{ in } s\}$ . Determiners in this analysis can then be taken to express conditions on the nature of the event argument assigned. For instance, it is evident that demonstrative pronouns designate individuals with respect to the utterance situation. The definite article in its discourse-anaphoric use denotes the unique individual that has the property denoted by the NP in a situation already given in the context. In its use as the head of an external NP of a relative clause, the article denotes the unique individual in the situation denoted by the relative clause. Given the standard definition of the definite determiner in (36), we thus argue that the DP das Buch in the matrix clause in (35) is evaluated with respect to the situation denoted by the embedded relative clause to guarantee that (37) holds.

- (36) The determiner *das* presupposes that the set *X* contains exactly one individuum in *s* and denotes the unique individual that satisfies the nominal predicate in s
- (37) in  $s_2$  Mary read the unique book x in  $s_1$  such that Otto recommended x to Mary in  $s_1$

The matching mechanism, via identification of the event arguments of the two occurrences of book(x,e), thus guarantees that both NPs denote the same set of objects, licensing the phonological deletion of the lower NP under semantic identity.

This identification of the event arguments can come about in two ways. The first way consists in the application of a relative operator that binds the event arguments of the verb and of the internal head in the relative clause. However, we do not identify this relative operator with the relative pronoun in (35), as in standard accounts. In our analysis, this operator is identified with a relative head in the C-domain that  $\lambda$ -abstracts over the event argument of the verb that has been anchored according to its temporal and modal specifications. This head

must thus occupy a high position in the C-domain and blocks V2. We assume that it is spelled-out as *wo* in many Bavarian, Alemannic and Hessian dialects, but remains unrealized in standard German. Following Bayer (1984), we propose the following structure for the relative clause in (35) above.

(38) Maria las das Buch [ $_{CP}$  [ $_{DP}$  [ $_{NP}$  Buch] das ] $_1$  [ $_{C'}$  (wo) [ $_{IP}$  ihr Otto empfahl  $t_1$  ]]]]

The relative pronoun, *das* in (35), only serves to spell-out the features of the internal nominal head that is matched and deleted. It does not play any semantic role and can also be deleted under specific conditions. Bayer (1984) argues that the relative pronoun in Bavarian dialects can be deleted (independently of morphological matching) if it is marked with Nominative Case (39a). In all other cases, it can be deleted, if it morphologically matches the determiner of the head noun in the matrix clause, as is illustrated in (39bc) (data from Bayer 1984: 216).

- (39) a. I sog's dem Mo (der) wo im Gartn arwat I say-it to the man-DAT who-NOM wo in the garden works
  - b. Der Mantel \*(den) wo i kaffd hob wor z'rissn The coat-NOM who-AKK wo I bought have was torn
  - c. Die Lampn (die) wo i geseng hob wor greißlich The lamp-NOM who-AKK wo I seen have was ugly

This analysis immediately explains why an indefinite DP heading a subjunctive relative clause receives a *de dicto* interpretation – since it is interpreted with respect to a situation in  $w_1$  that is remote from the actual world  $(w_0)$  – while an indefinite DP heading an indicative relative clause receives a *de re* interpretation – since it is interpreted with respect to a situation in  $w_0$ . It also explains why adjectival modifiers, like *last* in expressions of the form *the last N*, in stacked relatives are ambiguous in the way illustrated in (40). In the present account, the situation in *last*(x,s) can be identified with the event of Peter claiming something or with the event of being written by Grass.

- (40) a. Hans las das letzte Buch, das Peter sagte, dass Grass geschrieben hat.
  - b. John read the last book that Grass had written as Peter said.
  - c. John read the last book of which Peter said that Grass had written it.

# 4.3 The matching mechanism in V2Rs

The crucial difference between VfRs and V2Rs in our approach is that the identification of the event arguments required by the matching mechanism that underlies restrictive relative clauses is not brought about by a relative operator in V2Rs, but involves the alternative mechanism of accidental coreference. Matching is also satisfied if the event argument of the internal head is (accidentally) assigned the same value as the event argument of the external head has been. We

argue that this is achieved in that the relative clause is not only extraposed locally but post-posed to the entire clause, guaranteeing that the matrix clause is processed and evaluated before the relative clause. In this case the weak relative pronoun indicates that the associated NP has an anaphoric interpretation. Since coreference between two referential expressions typically is indicated via agreement in phi-features, the phi-features of the relative pronoun must remain visible preventing its deletion in V2Rs. In other words, the relevant event with respect to which the NP in the relative clause is interpreted is the one introduced/denoted by the nominal head in the matrix clause. The determiner restriction on the external head in V2Rs follows from the merge position of the relative clause and the assumption that these determiners are interpreted in the relative clause, as illustrated in (41).

(41) Apfeldorf hat viele Häuser, die stehen leer.

Syn: [CP] Apfeldorf hat [DP] [NP] viele Häuser [CP] [DP] [NP] viele Häuser [CP] die [CP] stehen [CP] [CP]

PF:  $[_{CP} \text{ Apfeldorf hat } [_{DP} [_{NP} \text{ viele H\"{a}user}] [_{CP} [_{DP} [_{NP} \text{ viele H\"{a}user}] \text{ die}] [_{C} \text{ stehen } [_{IP} \text{ leer }]]]]]$ 

LF:  $[_{CP} \text{ Apfeldorf hat } [_{DP} [_{NP} \text{ viele H\"{a}user}]] [_{CP} [_{DP} [_{NP} \text{ viele H\"{a}user}]] die] [_{C} \text{ stehen } [_{IP} \text{ leer }]]]$ 

In the base structure (represented by Syn), the relative clause enters the construction with the adjectival quantifier *viele* occupying a position within the matched NP of matrix and embedded clause. At PF, the lower copy of this NP is deleted. The crucial point is now its representation at LF: after extraposition of the relative clause, the quantifier *viele* cannot be interpreted in the matrix clause, since this would leave us with unbound variables. Instead it is interpreted in the embedded clause indicated by crossing out of the quantifier in the higher position at LF.

The main clause introduces a situation containing a set of discourse referents, namely the houses in Apfeldorf. The strong reading of *viele* derives from the given status of the set of *houses in Apfeldorf* in the extraposed clause requiring that the nominal complement of *viele* is mapped onto the restriction of the quantifier. The rest of the relative clause must be assumed to be focused to permit the mapping of the predicate *stehen-leer* into the nuclear scope of the quantifier. The event argument of the verb, not bound by a relative operator, is anchored via V2 to the utterance situation, implying that the embedded clause is asserted.

We conclude that the matching mechanism guarantees that a situation s is established in the matrix clause about which the relative clause provides relevant information. The two clauses, though constituting two assertions, form an information structural unit and are thus integrated into one prosodic contour.

#### 5 What is the topic in V2Rs?

The crucial point of the above analysis is the information structural role of the material in the relative clause: the relative NP is discourse-given, while the embedded predicate constitutes new information and is asserted. As stated above, main clause and relative clause form an interpretational and prosodic unit, something that is typical of topic-comment structures. This raises the question of whether there is a topic present in these constructions.

In this section, we will compare the present account with the account of Ebert, Endriss and Gärtner (2007), henceforth EEG, which assumes an explicit topic-comment structure for V2Rs, as is illustrated in (42), where *TOP* indicates the topic part and *COM* stands for the comment.

- (42) a. Apfeldorf hat viele Häuser, die stehen leer
  - b. [Apfeldorf hat viele Häuser]<sub>TOP</sub> [die stehen leer]<sub>COM</sub>

They convincingly argue that the relevant interpretation of a V2R and its restrictions follow from the information structural sensitivity of weak quantifiers, as proposed by Herburger (2000) and briefly discussed above. Differently from Herburger (2000), they propose that the crucial feature in the mapping of sentence material onto the restrictive clause and its nuclear scope of a weak quantifier is not focus, but the notion of topic, with topic material being mapped into the quantifier's restriction and non-topical material into its nuclear scope.

The relevant notion for topic here is the notion of aboutness topics proposed by Reinhart (1981), where the aboutness topic is literally understood as the address under which the information provided by the comment is stored. This procedure is straightforward for definite NPs and proper names which represent discourse referents for which relevant information can be easily imagined to be stored in the above way. They argue that this notion can be extended to a subset of quantified expressions for which a representative set that they identify with the minimal witness set of Barwise/Cooper (1981) can be determined. The interested reader is referred to their paper for the semantic details of this proposal.

We will not take issue with the technical part of the paper, which is completely coherent and convincing, but would like to point out two details of the account which are problematic and then show that these issues do not arise in the present account.

The first point concerns the ungrammaticality of the weak quantifier *few/wenige* in V2Rs, as was discussed in (32a) above. EEG argue that this weak quantifier is excluded by their topic condition since it does not provide a suitable storage address. Note, however, that this quantifier is IS-sensitive in other contexts, as is illustrated in (43).

- (43) a. Ich kenne wenige INKOMPETENTE Köche.
  - I know few incompetent cooks
  - b. Few of the cooks I know are incompetent

In fact, (43a) can have the reading given in (41b). This means we need two types of very similar procedures for weak quantifiers: the procedure proposed by Herburger (2000) crucially involving the notion of focus and the procedure proposed by EEG for V2Rs crucially involving the notion of topic. This state of affairs is at least unsatisfactory.

The second point concerns the interpretation of the structure proposed in (42b). First of all, it is not clear where the information provided by the comment is stored; obviously under the minimal witness set of the set of *many houses in Apfeldorf* where this set must be taken to cover a great proportion of the entire set of *houses in Apfeldorf*. This is a bit technical but may still be coherent. What is more troublesome is the comment part (which is stored under this set), namely the information that the members of this set stand empty. This reading is completely counterintuitive, since the crucial point of the comment for us concerns the proportion of *houses in Apfeldorf* that stand empty. But this information disappears in their account and is somehow hidden in the way in which the topic set is determined.

Let us now see how these issues are avoided in the present account. The crucial point is that the quantifier is interpreted in the embedded clause and deleted in the matrix clause. So far, we have assumed that deletion of the quantifier in the matrix clause applies without any condition. To derive the ungrammaticality of (32a), we propose the following condition on the deletion of a weak quantifier in (44).

(44) A weak quantifier in a matching NP can be deleted in the higher position if the sentence containing Q NP entails the sentence lacking Q, that is, containing only NP.

According to (44), (42) is okay, since the sentence *Apfeldorf hat viele Häuser* entails the sentence *Apfeldorf hat Häuser*, while (32a) is excluded since the sentence *Ich traf wenige Männer* does not entail the sentence *Ich traf Männer*. The latter is only a generalized implicature of the former due to the scale between the expressions (*keine Männer*, *wenige Männer*) but is not part of the lexical meaning of *wenige X*, which only requires that the cardinality of X is smaller than a certain threshold, compatible with there being only one or no individual at all.

So the difference between (42) and (32a) can be derived without assuming that the entire matrix clause is topical. While we agree with EEG that sentences like (42) are about *houses in Apfeldorf* in some way, we strongly disagree about their analysis of the comment. The relevant information provided by the comment about *houses in Apfeldorf* is that many of them are empty. If the comment is identified with the relative clause, this is elegantly captured in the present approach since the quantifier is interpreted only in the relative clause forming part of what is asserted in it.

The question then remains of what is the topic, if there is any, in the present approach. Our take is that the default topic is to be identified with the situation *s* that is established in the matrix clause. This situation is inviduated as a situation

containing *houses in Apfeldorf* and the relevant comment about this situation *s* is that many of these houses are empty. We assume that the situation serves as the (default) topic only in cases in which the context does not require a specific topic, since V2Rs are also compatible with standard topics connected with referential nominal expressions, as is illustrated in (45).

- (45) Erzähl mir was von Apfeldorf!
  - a. [TOP Apfeldorf] [COM liegt in Oberbayern und hat 1000 Einwohner]
  - b. [TOP Apfeldorf] [COM hat viele Häuser, die stehen leer]

While it is without doubt that the subject in (45a) is the aboutness topic in the given context and is characterized as a place in Upper Bavaria with 1000 inhabitants, we propose that the subject in (45b) functions as an aboutness topic in a parallel way, excluding that the *set of (many) houses in Apfeldorf* functions as aboutness topic, as is required in the account by EEG.

This topic in the present account is characterized by a situation *s* in which the *houses in Apfeldorf* are such that many of them are empty, with the situation *s* of *houses in Apfeldorf* forming part of the comment. Since in the present account it is sufficient that the *houses in Apfeldorf* are discourse-given at the point at which the relative clause containing the quantifier *viele* is processed, the IS-representation in (45b) is as unproblematic as it should be.

#### 6 Conclusions

To summarize, the syntactic and semantic properties of V2Rs can be explained without resorting to the unclear topic status of certain quantifiers and without assuming a paratactic analysis with a silent relative operator as its head. Instead, we have shown that they can be fully accounted for by the standard analysis of restrictive relatives clauses employing a matching procedure of the relative NP and two assumptions: a) the weak determiner is interpreted in the embedded clause and b) V2 indicates that the event argument of the verb in the relative clause is anchored with respect to the utterance situation, necessitating the obligatory extraposition of the embedded clause.

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München Nicholas Catasso

Deutsche Philologie, Schellingstr. 3 RG, 80799 München, e-mail: nicholas.catasso@campus.lmu.de

Venedig Roland Hinterhölzl

Universität Ca' Foscari Venezia, Dip. di Scienze del Linguaggio, Dorsoduro 1075, Ca' Bembo, 30123 Venezia, e-mail: rolandh@unive.it