GENERALIZED AND SPECIALIZED ADVERBIAL RESUMPTION IN MIDDLE HIGH GERMAN AND BEYOND*

Nicholas Catasso
Bergische Universität Wuppertal

Abstract The paper discusses specialized and generalized adverbial resumption (Salvesen 2016) in Middle High German, focusing on two correlative elements derived from originally referential-deictic adverbs, *dô* (lit. 'there', 'then') and *sô* (lit. 'so'). I show that while the former only resumes temporal and local (and, to a certain extent, causal) antecedents and can therefore be classified as a specialized item, the latter exhibits 'hyper-referentiality', in the sense that it is compatible with virtually any type of antecedent (e.g. temporal, conditional, causal, concessive). On the basis of a quantitative and qualitative analysis of corpus data including adverbial correlative patterns extracted from the Referenzkorpus Mittelhochdeutsch, as well as of independent assumptions on the makeup of the left periphery in Historical German, I propose that (at least this type of) resumption is the non-pronominal counterpart of German left dislocation. Assuming a derivation similar (but crucially, not identical) to that proposed by Grewendorf (2002), I claim that both resumptives are maximal projections. In particular, they function as trace spell-outs lexicalizing the cyclic movement of an adjunct XP base-generated in the middle field into some CP-internal specifier (arguably, [Spec,FrameP]) via [Spec,FinP]. Finally, a central claim of this paper is that *dô* behaves consistently throughout the history of German with respect to its resumptive function, whereas *sô* gradually switches from a universal to a specialized element (in Present-Day German, it can only resume conditional and concessive adjuncts).

Keywords: Middle High German, Verb-Third, left periphery, adverbial resumption

1 INTRODUCTION

Middle High German (henceforth: MHG) is a term generally used to identify the German dialects spoken south of the Benrath line approximately between 1050 and 1350 (the Western and Eastern varieties in the Central German group and East and Rhine Franconian, Alemannic and Bavarian in the Upper German group). The basic syntactic arrangement of MHG is, *mutatis mutandis*, already similar to that of Present-Day German (PDG): obligatory V-to-C movement in declarative matrix constructions and the (left and right) clause brackets typical of asymmetric Verb-Second (V2) languages are consolidated as part of the system in this period. However, a number of linear Verb-Third (V3) word orders are attested in MHG, as well. Such V3 phenomena in main clauses include, for instance, prefield sequences of the type: frame-setting topic > aboutness topic (1 a); adverbial clause > *wh*-phrase (1 b); modal adverb > familiar topic (1 c) (see Table 1 for an overview of the abbreviations):

(1) a. *[Dar nach] [die maister dises   lebenes]   ... sulen*
         afterwards the   masters   this.GEN   order.GEN   must
         flizzeclichen ervaren   daz ampt   ... der
         diligently   observe   the work   the.GEN.PL
         livte
         people.GEN.PL
         'After that, the masters of this order must diligently observe the work ... of the people (who want to join the convent).' (*FR.* 1vb,11–1vb,19)

     b. *[do   unsir here got   vertilkite   alliz daz in der werlde*
         after our   lord God   destroyed   all   that in the world
         was] ... [wilich] sint aber sine vinde
         was   which   are   then his   enemies
         'After/since God, our lord, has destroyed all that existed in the world, who are then his enemies?' (*MP.* c3ra,27–c3ra,30)

     c. *[Weirliche] [de] lovit   den vadir*
         truly   he   praises the father
         'In truth, he praises the Lord' (*Köln.* 23a,15–23a,16)

In the examples in (1), the two constituents hosted in the prefield are non-co-referential ((1 a) and (1 b)) or involve one XP that is not referential at all (e.g. *weirliche* in (1 c)). A further group of non-V2 phenomena attested in MHG comprises combinations of prefield elements that are not independent of each other, but can be assumed to refer – in more or less abstract terms – to the same entity. Correlative constructions consist of an XP surfacing in first

clause position that is taken up by a resumptive element in some other left-peripheral position. Resumptive elements can be of two types: pronominal or adverbial. Pronominal resumption gives rise to V3 phenomena such as left dislocation (LD, whereby an aboutness or contrastive topic is resumed by a *d*-pronoun that exhibits the same ϕ-features as the dislocated constituent (2 a)) and hanging topicalization (HT, in which the 'case-unmarked'/nominative DP functions as a sentence topic, but is syntactically non-integrated, and the resumptive is not necessarily a matching *d*-pronoun, as shown in (2 b)):

(2) a. *Sancto   paulo   deme   sluc man daz houbit abe* (LD)
         saint.DAT Paul.DAT him.DAT cut one the head v.PRT
         'St Paul's head was cut off.' (*MP*. c6ra,03–04)

     b. *[mi]ne frovwen. si   sol   heizzin   sara* (HT)
         my   woman   she will be-called Sarah
         'My wife will be called Sarah.' (*Spec*. 13r,04)

   Adverbial resumption is more heterogeneous. In some cases, it makes use of more than one element for apparently the same categories, but not all categories involved are necessarily referential, which makes this phenomenon not only somewhat different from its pronominal counterpart, but also more complex and difficult to analyze. The two most frequently attested resumptives in MHG are *dô* (lit. 'there', 'then') and *sô* (lit. 'so'). In (3) and (4), it is shown that these two elements, which systematically appear in a CP-internal position between the XP they resume and the finite verb, may both take up, for example, a preposed temporal adverbial clause (3 a) and (4 a), PP (3 b) and (4 b), or adverb (3 c) and (4 c). Note that when a fronted adverbial XP appears in the left periphery, *dô-/sô*-resumption is extremely frequent, but not obligatory in MHG:

(3) a. *Do   dit   der iude gesach.* **da** *fuor er zu*   (CP)
         when that the Jew saw   *dô* went he v.PRT
         'When the Jew saw that, he came up (to them).' (*PF*. 13,04–05)

     b. *In den geziten* **da** *sprachin di   lute   alle ein*
         in the times   *dô* spoke   the people all one
         spr‹a›[ch]‹e› (PP)
         language
         'In that time, people spoke only one language.' (*MP*. c4va,26–28)

     c. *in dez*   **da** *tauelt   man ir*   (Adv)
         in-the-meantime *dô* celebrated one her.DAT
         'In the meantime, they celebrated in her honor.' (*Engelth*. 021,03–04)

(4) a. *als   sie denne auz den kör   kom   **so** verswant*
         when she then from the choir came *sô* disappeared
         er   (CP)
         he

    'When she left the choir, he disappeared.' (*Engelth.* 030,03–04)

  b. *In den stunden **so** gesazzen die diebe*   (PP)
      in the hours   *sô* sat   the thieves

    'In those moments, the thieves were sitting' (*PF.* 13,21)

  c. *vnderdes   **so** qam der slag*   (Adv)
      in-the-meantime *sô* came the punishment

    'In the meantime, God's punishment came.' (*Leipz.* 135ra,41)[1]

Although it is a well-known fact that the language stages preceding Modern German make extensive use of this apparently uneconomical resumptive strategy resulting in surface V3 (cf. Axel 2004: 40–42, 2007: 233), the distribution and formal analysis of the elements performing the resumption function in MHG have never been specifically addressed in the literature on the syntax of medieval German. In what follows, the attempt will therefore be made to shed light on such correlative constructions as those exemplified in (3) and (4). Section 2 introduces the relevant theoretical notions discussed in the recent literature on resumption in (old and modern) Germanic and Romance that are necessary to make sense of the MHG data to be addressed in this paper. In section 3, the results of a corpus study investigating the semantic mapping and (multi-)functionality of *dô* and *sô* are presented and discussed in detail. In section 4, the diachronic development of this pattern from MHG onwards is examined by looking at the data attested in PDG. The concluding section summarizes the paper's observations on the synchrony and diachrony of adverbial resumption in German.

2 ADVERBIAL RESUMPTION IN V2 GERMANIC AND ROMANCE VARIETIES

2.1 *Specialized and generalized adverbial resumptives in modern Germanic*

Resumption of a preposed XP is a striking feature of the modern V2 Germanic languages, in which the presence of the corresponding preverbal adverb is

---

1 It should be mentioned that *dô* and *sô* did not originally resume all types of phrase categories, but derive from older correlative constructions in which a preposed adverbial clause introduced by subordinating (temporal or conditional) *do* or *so* ('when', 'if') was taken up by an exact *adverbial* copy of the embedding conjunction. In MHG, the function of these two items had already been (at least in part) generalized to a large number of clause-initial adverbials not necessarily introduced by the homophonous conjunction, including adverbial clauses with a V1 word order or introduced by other conjunctions and non-clausal XPs such as adverbs and PPs.

always optional. In her groundbreaking study, Salvesen (2016) distinguishes two types of adverbial elements (which she labels 'particles') performing this function: specialized and generalized resumptives. The former are elements that are not (entirely) semantically bleached and retain referential identity with the antecedent, and whose domain is, therefore, limited to the resumption of categories with which they are formally compatible. Ideally, a specialized resumptive can only take up one class of antecedents, or more than one class if different antecedents share a common semantic value that the resumptive is specialized in. According to Salvesen (2016: 1), the resumptive pattern only occurs in V2 languages. It seems, however, that the modern Romance languages, which have all switched to non-V2 in the course of their history, also possess optional adverbs that function as (polysyllabic) specialized resumptives at least in conditional clauses.[2]

An example of a specialized resumptive comes from Standard Dutch. In this language, *dan* and *toen*, roughly corresponding to English *then*, can both resume a temporal antecedent, but the former relates to futurity (which explains why it can also be used to introduce the apodosis of a conditional clause), as in (5 a), while the latter is only compatible with past reference, as in (5 b) (examples adapted from Salvesen 2016: 5 and De Clercq & Haegeman 2018: 2).[3]

Swedish *då* (and the same item in other Scandinavian varieties, with minor language-specific differences) is specialized in the resumption of conditional or temporal antecedents like the *om*-protasis in (6 a) or the deictic adverb in (6 b) (examples adapted from Salvesen 2016: 7–9):

---

2 Consider the following examples from modern Romance:

    (i) Si un número es divisible entre dos, (entonces) es par.   (Spanish)

    (ii) Si un nombre est divisible par deux, (alors) il est pair.   (French)

    (iii) Se un numero è divisibile per due, (allora) è pari.   (Italian)

       'If a number is divisible by two, (then) it is even.'

3 Broekhuis & Corver (2016: 1704) illustrate the striking complementary distribution of *dan* and *toen* with temporal antecedents by means of the following examples, in which the only variable is the future (i) vs. past (ii) deictic reference of the adverb in first clause position:

    (i) *Morgen,   dan kom   ik wat   later.*
       tomorrow   *dan* come I   somewhat later

       'Tomorrow, I will arrive a bit later.'

    (ii) *Gisteren,   toen was ik ziek.*
       yesterday   *toen* was I   ill

       'Yesterday I was ill.'

(5) a. *Wanneer je   terugkomt   naar Griekenland {dan}/ {*toen}*
         when   you come-back to   Greece   *dan*   *toen*
         moet je   ons bezoeken.
         must you us   visit
         'When you come back to Greece, you must visit us.' (Dutch)

    b. *Toen ik thuiskwam,   {toen}/ {*dan} merkte   ik dat ik*
         when I   came-home, *toen*   *dan* noticed I   that I
         mijn laptop vergeten   was.
         my   laptop forgotten was
         'When I came home, I noticed that I had forgotten my laptop.'
         (Dutch)

(6) a. *Om du   är sen imorgon, **då** kommer du   att ångra*
         if you are late tomorrow *då* come   you that regret
         dig.
         REFL
         'If you are late tomorrow, you will regret it.' (Swedish)

    b. *Igår,   **då** gick vi på teater.*
         yesterday *då* went we to theater
         'Yesterday, we went to the theater.' (Swedish)

In structures with generalized resumptives, on the other hand, there is no semantic mapping between the antecedent and the preverbal adverb. This means that the resumptive, whose original meaning is completely lost, is compatible with different antecedent types and may be used irrespective of the meaning of the preposed constituent. Two interesting examples are Norwegian (and Swedish) *så* (lit. 'so'), which can resume, for instance, both temporal and local CP or PP antecedents (cf. (7 a) and (7 b)) (Salvesen 2016: 6–8), and Flemish *die*, an untranslatable 'pleonastic particle' (Vanacker 1980, De Clercq & Haegeman 2018) present only in the Ghent dialect which may virtually take up any type of adjunct (e.g. the evaluative adverb in (8 a)), some types of argumental PPs (e.g. the *in*-phrase in (8 b)) and even adjunct and argument *wh*-phrases (e.g. the direct-object quantificational interrogative constituent in (8 c)) (De Clercq & Haegeman 2018: 5). Just like their specialized counterparts, generalized resumptives are fully optional:

(7) a. *Når   du   kommer tilbake til Hellas, **så** må   du*
         when you come   back   to Greece *så* must you
         besøke oss.
         visit   us
         'When you come back to Greece, you must visit us.'
         (Norwegian)

6

  b. *I Paris **så** møtte vi våre gamle naboer.*
    in Paris *så* met we our old neighbors
    'In Paris, we met our former neighbors.' (Norwegian)

(8) a. *Waarschijnlijk **die** is hij weeral ziek.*
    probably   *die* is he again sick
    'He is probably ill again.' (Ghent dialect)

  b. *In mijn stoverij **die** doe ik nooit peperkoek.*
    in my stew *die* do I never gingerbread
    'I never add gingerbread loaf to my stew.' (Ghent dialect)

  c. *Wanneer **die** komt ze terug?*
    when *die* comes she back
    'When will she be back?' (Ghent dialect)

For the specialized and generalized resumptives of modern Germanic, different derivations have been put forward in the generative literature. Østbø (2006), Egerland & Falk (2010) and Salvesen (2016) propose that the Scandinavian specialized resumptive *då/da* is an XP, while its generalized counterpart *så* is a minimal projection. This assumption is based, for example, on the observation that these elements may co-occur after a preposed deictic XP, *då/da* obligatorily preceding *så*. In my view, the examples in (9) (adapted from Østbø (2006)) conclusively support the assumption that Norwegian *så* not only is positioned lower than the specialized resumptive *da* (9 c), but also must necessarily have a particle status (i.e. be a head): it does not really resume anything in (9 b), since *da* is already present to take up the reference of *i forgårs*, so it is plausible to assume that it is so 'generalized' a resumptive that its function must rather consist in spelling out a head in the spinal clause that is activated when, for example, an adverbial is fronted:

(9) a. *[I forgårs]$_i$,   **så**/ **da**$_i$ fikk Per en bot.*
    in day-before-yesterday *så* *da* got Per a ticket
    'The day before yesterday, Per got a ticket.'

  b. *[I forgårs]$_i$,   **da**$_i$ **så** fikk Per en bot.*
    in day-before-yesterday *da* *så* got Per a ticket
    'The day before yesterday, Per got a ticket'

  c. **[I forgårs]$_i$,   **så** **da**$_i$ fikk Per en bot*
    in day-before-yesterday *så* *da* got Per a ticket
    'The day before yesterday, Per got a ticket'

As for the specific derivation of *så*, Egerland & Falk (2010) argue that this element is a clitic in C°, which therefore appears in the same position as

the finite verb (10 a). Salvesen assumes that *så* is a particle first-merged in the head of a functional projection in the Split-CP positioned below ForceP, 'Res(umption)P'. The constituent in first clause position at PF is moved into [Spec,ResP] from the middle field via [SpecFinP] in order to satisfy the EPP feature of the Fin-head. Holmberg (2020) advocates a similar analysis, but calls the corresponding projection '*så*P' (10 b). Nordström (2010) is less explicit about the precise status of *så*, but seems to imply that it is base-generated in Top°, since the XP preceding it is generally interpreted as a sentence topic. She does not discuss whether the topic is merged in its surface position or moved there (10 c). Østbø (2006) and Hilde & Eide (2007) analyze *så* as a spell-out of Force whereby this projection is reduplicated to host the XP in a higher and *da* (if present) in a lower specifier (10 d). In a later paper, however, Eide (2011) proposes that *så* heads a functional projection labeled 'ShiftP' occupying a structural position higher than ForceP (10 e). This stipulation results from Eide's observation – similar to what is proposed by Nordström (2010) – that the fronted constituent is more or less systematically associated with a change in the discourse topic:

(10) a. $[_{CP}$ *då*/*da* $[_{C°}$ *så* + Vfin] $[_{TP}$ ...]] (Egerland & Falk 2010)

b. $[_{ForceP}$ $[_{ResP/såP}$ XP$_i$ $[_{Res°/så°}$ *så*] $[_{FinP}$ t$_i$ $[_{TP}$ ...]]]] (Salvesen 2016, Holmberg 2020)

c. $[_{ForceP}$ $[_{TopP}$ XP$_{(i)}$ $[_{Top°}$ *så*] $[_{FinP}$ (t$_i$) $[_{TP}$ ...]]]] (Nordström 2010)

d. $[_{ForceP}$ XP $[_{ForceP}$ *da* $[_{Force°}$ *så*] $[_{FinP}$ $[_{TP}$ ...]]]] (Østbø 2006)

e. $[_{ShiftP}$ XP$_i$ $[_{Shift°}$ *så* $[_{ForceP}$ t$_i$ $[_{Force°}$ fin]]]] (Eide 2011)

For the East Flemish generalized resumptive *die*, only two analyses have been carried out in the formal literature so far. Zwart (1997: 149–150) proposes that this element is the adverbial variant of the homophone pronoun resuming left-dislocated topics, and that it surfaces in the specifier of a left-peripheral TopP. De Clercq & Haegeman (2018) reject this analysis (which indeed cannot be fully adequate in light of data like (8 c), in which a *wh*-phrase precedes *die*) and adopt Poletto's (2013) and Wolfe's (2016) treatment of V2 in West Germanic in terms of ForceP-V2 systems to argue that 'this' *die* is a root complementizer that spells out the head of ForceP. Note that, exactly like Norwegian *så* (cf. (9 b)), *die* may co-occur with a specialized resumptive like *daar* (lit. 'there', glossed as 'daar' in the example below), which must surface to its left and below the preposed XP, as illustrated in (11) (adapted from De Clercq & Haegeman 2018: 11):

(11) *Maar e   wel ja   in Sint Kruis **daar die** hebben me de*
     but   PRT   PRT PRT in Sint Kruis *daar die* have   we   the
     eerste Duitse   tons gezien.
     first   Germans   then seen

     'But, well, in St Kruis we saw the first Germans.'

It is reasonable to think that a deictic XP appearing in the clausal left periphery might only be resumed by one adverb, and not by multiple elements, especially if these elements correspond to different lexical entries. In constructions like (11), *daar* seems to be the real resumptive, while *die* must be assumed to perform another function. In consideration of this, De Clercq and Haegeman propose the following operationalization: *in Sint Kruis*, the antecedent of the specialized resumptive *daar*, is base-generated in [Spec,FrameP], a projection that the authors assume is positioned above ForceP. This is in line with Wolfe's (2016: 297) empirical generalization that '[i]n Force-V2 languages, V3 orders only occur with an initial constituent lexicalising the Frame-field of the left periphery'. The specialized resumptive is merged in the middle field and moved to [Spec,ForceP] via [Spec,FinP] in order to satisfy, following the order of the operations, the bottleneck constraint (Haegeman 1996, Roberts 2004, Cardinaletti 2010) and the V2 parameter in a Force-V2 system like the Ghent dialect. The particle *die* is generated in Force° and the finite verb appears in Fin° at PF. By proposing the derivation in (12), De Clercq and Haegeman ensure that no formal constraint is violated and account both for structures like (12) and for those in which no specialized resumptive is present:

(12) [$_{\text{FrameP}}$ in Sint Kruis [$_{\text{ForceP}}$ daar [$_{\text{Force}}$ die] [$_{\text{FinP}}$ ~~daar~~ [$_{\text{Fin}}$ hebben [$_{\text{TP/VP}}$ ... ~~daar~~ ...]]]]]

Irrespective of the peculiarities and details characterizing each of the analyses put forth in the literature, there seems to be a general consensus that specialized resumptives are maximal projections and generalized resumptives are heads in the modern V2 languages.

2.2 *A generalized resumptive (?) in old Romance*

It is a well-known – although not uncontroversial – fact that old Romance has a V2 grammar. Many scholars have argued that all medieval Romance languages exhibit a V2 rule of the 'Germanic' type (cf. e.g. Benincà 1984, Adams 1987, Roberts 1993, Ribeiro 1995, Fontana 1997, Vance 1997, Salvesen 2016, Wolfe 2016). In fact, these varieties frequently present inversion structures involving unstressed pronouns (13 a) (Wolfe 2016: 292) and even what

looks like a left-and-right-sentence-bracket construction (13 b) (Wolfe 2018b: 336):[4]

(13) a. *e   così er'e' rivà   a   casa de Macho de Robin*
            and so was-I arrived at house of Macho de Robin
            'and I thus arrived at the house of Macho de Robin.' (Old Venetian)

      b. *messe e   matines ad li   reis escultet.*
            mass and matins has the king heard
            'The King has attended mass and matins.' (Old French)

In old Romance, thus, the finite verb systematically moves to a left-peripheral and not to a head in the TP, differently from what is generally assumed for modern Romance. It is generally assumed that the medieval neo-Latin languages exhibit a 'relaxed' V2 rule as opposed to the 'strict' one observed, for example in modern Germanic (cf. e.g. Benincà 2013, Cognola 2013, Ledgeway 2017). This idea entails that the constraint requiring that the prefield be occupied only by one constituent can be violated more easily in old Romance than in modern Germanic. However, different landing sites in the Rizzian (1997) Split-CP have been proposed for the verb in these varieties: Fin° (Salvesen 2011, 2013, Wolfe 2018a, 2018b for Early Old French), Foc° (Benincà 2004, Donaldson 2012) and Force° (Rouveret 2004, Wolfe 2018a for Late Old French).

Old Romance, indeed, has been shown to allow for a number of V3 phenomena (for an overview, cf. e.g. Wolfe 2016). In this section, a construction of old Central Romance is addressed in which a constituent in first clause position and placed in some left-peripheral specifier is followed by the particle *si* ((14), Old French)/*sì* ((15), Old Italian), both derived from Latin *sic* ('so'), thereby giving rise to a surface Verb-late configuration. Interestingly, the light adverb conveying a basic modal meaning seems to be frequently used with this function in old and modern V2 languages (cf. (4) for MHG *sô* and (7)/(9) for Norwegian and Swedish *så*). In (14) (Wolfe 2018b: 356), *si* appears to the right of a direct object, while the subject *Toldres li Ascres* surfaces in a post-verbal, middle-field position. In (15) (Poletto 2014: 29), *sì* occurs after a temporal adverbial clause:

(14) Old French

    et   tote la   terre si tenoit Toldres li Ascres
    and all the land si held Toldre l'Ascre
    'And Toldre l'Ascre held all the land.'

---

4 For a different view, see for example Kaiser (2002), Rinke & Meisel (2009), Martins (2014) and Sitaridou (2019).

(15) Old Italian

Poi che detta fue questa canzone, sì venne a me uno …
after that said was this song sì came to me one

'After this song was sung, a man came to me …'

The examples in (14) and (15) show that *si/sì* may follow both arguments and adjuncts. Note that the Old French and the Old Italian particle have a very similar distribution: their 'antecedent' can be a fronted DP/free relative clause or a fronted adverb/PP/adverbial clause, but there seem to be no attestations in which the XP in first clause position is a *wh*-phrase or *si/sì* follows a stylistically fronted constituent.

There is no consensus as to the exact syntactic position of this element. For Old French *si*, the following PF sites have been proposed: Fin° (Ferraresi & Goldbach 2002), [Spec,FinP] (Salvesen 2013, Wolfe 2018b for Early Old French), [Spec,FocP] (Benincà 2006, Donaldson 2012) and SpecForceP (Wolfe 2018b for Late Old French). For Old Italian *sì*, it has been assumed that it occupies [Spec,CP] (Adams 1987, Benincà 1995, i.e. in studies conceiving the medieval Romance prefield as a one-position domain or not committing to a specific specifier), Foc° (Ledgeway 2008) or [Spec,FocP] (Poletto 2014, 2017). According to Poletto (2014, 2017), the assumption that *sì* is positioned in [Spec,FocP] follows from the fact that this element functions as a prosecutive operator that resumes a topic located in a higher specifier and turns it into a focus.

Recently, Salvesen (2016) has proposed that Old French *si* may be both a specialized and a generalized resumptive, depending on its relation to the antecedent and the rest of the syntactic context. In particular, she concludes that *si* must be a specifier when the initial element is (or contains) an adverbial clause, and a head in all other cases (i.e. when the antecedent is a fronted argument, a PP or an adverb). The fronted clause taken up by the specialized resumptive *si* is base-generated in a clause-external [Spec,SceneSettingP](-like) position (labeled 'ScSP' below), while *si* appears in the specifier of the V2 head, which she assumes is [Spec,FinP]. On the other hand, the categories appearing to the left of the generalized resumptive target [Spec,TopP] by cyclical movement via [Spec,FinP], and *si* lexicalizes the head of the same projection (Top°). Her main argument is that *si* after preposed adverbial clauses is in complementary distribution with other argumental or adverbial elements, while non-clausal antecedents can be followed either by *si* or by the finite verb. Note that in Old French, no other specialized resumptives appear to be attested (Salvesen 2016: 15), which means that *si* – although associated with two different formal statuses – does the job of resuming all possible clause-initial categories. Salvesen's take on the distribution of *si* in Old French is summarized in (16):

(16) a. [$_{ScSP}$ AdvClause [$_{ForceP}$ [$_{FinP}$ *si* [$_{Fin°}$ Vfin] [$_{TP}$ ...]]]]
(specialized *si*)

b. [$_{ForceP}$ [$_{TopP}$ [Subject / Adverb / PP]$_i$ [$_{Top°}$ *si*][$_{FinP}$ t$_i$ [$_{Fin°}$ Vfin]
[$_{TP}$ ... t$_i$]]]] (generalized *si*)

This approach fits in well with the data (provided the assumption holds that the verb sits in Fin° in Old French). Whether this analysis – irrespective of the technical details – might complement the implementation developed by Poletto (2014, 2017), who rejects the idea that Old Italian *sì* can be analyzed as a head, must be left for future research.

Given Salvesen's differentiation between specialized and generalized resumptives, as well as the relevant technicalities concerning possible analyses of such elements in Germanic and old Romance, the next section presents the results of a large-scale corpus study of the elements *dô* and *sô* in MHG.

3 MHG: Corpus study

As shown in (3) and (4) above, *dô* and *sô* appear after preposed XPs in MHG. Given that there are no extensive studies addressing the specific functions of these items (but see Axel-Tober 2012 for an overview), the question arises as to whether it is possible to integrate *dô* and *sô* into this system.

3.1 Sources and methods

To investigate the distribution of *dô* and *sô* in resumptive function, I used the Referenzkorpus Mittelhochdeutsch (ReM) (Klein et al. 2016), searchable via ANNIS (Krause & Zeldes 2016), the largest repository of morphologically annotated texts from the MHG period. In particular, 13 prose texts in nine different scribal languages and of different genres, covering the whole MHG period, were analyzed.[5]

---

5 Of course, a much larger variety of sources would be needed in order to compose a fully balanced corpus with respect to geographical provenance and text genre. For the time being, however, the texts consulted for the present study can be considered to provide at least a satisfactory foundation for the investigation of resumptives in different dialectal and genre varieties of MHG.

Text	Date of composition	Dialect	Text type
Alkuinstraktat (*Alk.*)	first half 12th c.	Alemannic	sermon
Bamberger Arzneibuch (*Bamb.*)	about 1150	Rhine Franconian	scientific text (medicine)
Wessobrunner Glauben und Beichten (*Wess.*)	second half 12th c.	Bavarian	sermon
Speculum Ecclesiae (*Spec.*)	second half 12th c.	Bavarian-Alemannic	sermon
Zürcher Arzneibuch (*Zürich.*)	end 12th c.	Alemannic	scientific text (medicine)
Predigtfragmente (*PF.*)	12th–13th c.	Hessian-Thuringian	sermon
Mitteldeutsche Predigten (*MP.*)	about 1200	Rhine Franconian	sermon
Millstätter Predigtsammlung (*Mill.*)	second half 13th c.	Bavarian	sermon
Klagschrift der Gesellschaft der alten Geschlechter zu Mainz (*Klagschrift*)	1322	Rhine Franconian-Hessian	legal text
Engelthaler Schwesternbuch (*Engelth.*)	btw. 1330 and 1346	East Franconian	narrative
Franziskaner Regel (*FR.*)	first half 14th c.	Swabian-Alemannic	normative text
Kölner Klosterpredigten (*Köln.*)	first half 14th c.	Ripuarian	chronicle
Leipziger Predigen A (*Leipz.*)	first half 14th c.	Upper Saxon	sermon

Table 1   MHG corpus

In order to obtain the number of clauses necessary to make predictions about the behavior and syntactic distribution of *dô* and *sô*, all sentences containing these elements were extracted from the above-mentioned texts. The texts were investigated by using the queries *lemma="dô" & posLemma="AVD-KO" & #1_i_#2* and *lemma="sô" & posLemma="AVD-KO" & #1_i_#2*, which retrieve

all 'adverbial' items lemmatized as 'dô' and 'sô' irrespective of their position in the clause and/or whether they are preceded by one or more XPs. All irrelevant items found with this query were sifted out manually. The relevant sentences were then categorized according to the semantic nature of their antecedent.

3.2   Results

The corpus considered for the present study contains a total of 563 sentences in which *dô* and *sô* surface in non-first position within the left periphery of the clause. As shown in Table 2, both resumption strategies are attested throughout the MHG period, which suggests that the exclusive use of *dô* or *sô* after a preposed constituent may be neither (entirely) dialect- nor (entirely) text-type-specific. The data do not seem to show an MHG-internal development in the use of these two items as resumptives: from 1050 to 1350, and even within each of the three centuries, there are texts in which *dô* occurs more frequently than *sô*, and others in which the opposite holds. For the 14th century, compare for example the *Engelthaler Schwesternbuch*, in which *dô*-resumption is the dominant pattern (174/229 clauses = 75.98%), with the *Franziskaner Regel*, where the resumptive construction is in general much less frequent, but *sô* is used in all 13 sentences that exhibit a resumption construct (= 100%). Especially considering that these elements can – in some cases – resume the same category (cf. (3) and (4)), and that the speaker's choice to use the one or the other resumptive in a given context may thus be 'accidental', the overall statistical frequencies of *dô* (316/563 clauses = 56.12%) and *sô* (247/563 clauses = 43.87%) appear to be quite balanced.

Century	Text	*dô*	*sô*	Total
12th c.	*Alk.*	2	6	8
	Bamb.	1	10	11
	Wess.	0	1	1
	Spec.	74	54	128
	Zürich.	1	16	17
13th c.	*PF.*	11	21	32
	MP.	31	38	69
	Mill.	6	6	12
14th c.	*Klagschrift*	6	9	15
	Engelth.	174	55	229
	FR.	0	13	13
	Köln.	1	4	5
	Leipz.	9	14	23
tot.		**316**	**247**	**563**

Table 2   Absolute frequency of *dô* and *sô* in resumptive function

Given that in MHG, virtually all matrix structures display V-to-C movement and all (C-introduced) embedded clauses are verb-final, the resumptive pattern does not occur in the latter, in which *dô* and *sô* are positioned in the middle field and function as a temporal and as a modal full adverb, respectively, as illustrated in (17) and (18). In many cases, the middle-field adverb *dô* ('then') and its homophonous (and genetically related) conjunctional and resumptive counterparts co-occur in the same sentence (17). When *sô* surfaces as a full adverb in the TP, it systematically has its original meaning ('so', 'in this way'), as in (18 a) and (18 b). In (18 a), the adverb *sô* modifies the predicate of a temporal clause in turn resumed by the correlative *sô*. Note that in (18 b), *sô* is not a DP-internal quantificational/emphatic adverb, but means 'following the instructions given above' (the source is a medical text containing recipes for concocting various medicines):

(17) *Do   er do   dar   quam **do** ginc er in ein munster*
      when he then there came dô went he in a   monastery
      'When he then arrived, he went to a monastery.' (*MP.* c8vb,11–12)

(18) a. *undze si   so tuont. **so** ne   werdent si   ouch*
          until they so do   sô NEG become   they also
          niemmer sine friunde
          no-more his   friends
          'As long as they behave like that, they will not be his friends.'
          (*Trud.* 49va,8–9)

b.   *vnd lege s in einen starchen ezich.   vnz   si   so*
    and put it in a   strong   vinegar until they so
    waich werde
    soft   become

'Drop it [= the eggshell] into a strong vinegar until it gets soft.'
(*Barth.* 8va,5–6)

In order to classify left-peripheral *dô* and *sô* according to the criteria discussed above for modern Germanic and old Romance, one needs to scrutinize the constituents preceding them in main clauses with respect to their semantic nature and morpho-syntactic features. Tables 3 and 4 provide the statistical frequency of each semantic and syntactic category in resumption patterns with *dô* and *sô*, respectively:[6]

dô	CP	PP	AdvP	DP	RelCl (generalizing)	Total
Temporal	220 (69.62%)	56 (17.72%)	11 (3.48%)	15 (4.74%)	0 (0%)	302 (95.56%)
Causal	3 (0.94%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	3 (0.94%)
Conditional	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Locative	7 (2.21%)	4 (1.26%)	0 (0%)	0 (0%)	0 (0%)	11 (3.48%)
Manner	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Instrumental	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Concessive	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Argument	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total	230 (72.78%)	60 (18.98%)	11 (3.48%)	15 (4.74%)	0 (0%)	**316 (100%)**

Table 3   Semantics and phrase type of the antecedent in *dô*-resumption

---

6 In the column headers of Tables 3 and 4, the phrase category 'CP' refers to clauses introduced by an overt complementizer; 'PP' to phrases formed by a preposition and a DP, irrespective of whether they are interpreted 'literally' (e.g. in the English PP *on the table*, a transparent spatial meaning is conveyed that is directly inferable from the semantics of the preposition in relation to the nominal expression that it selects) or 'adverbially' (e.g. MHG *durh daz* 'through that' is formed by a preposition and a pronoun; however, its overall meaning is not transparent, and its function is that of an adverbial connector like English *therefore*); 'AdvP' to full adverbs (i.e. adverbs with a non-particle status) appearing in the left periphery; 'DP' to nominal expressions that are not the complement of a preposition (e.g. the MHG genitival DP *des morgens*, lit. 'the.GEN morning.GEN', which means 'in the morning' and thus falls into the category 'temporal DP', since it is an adjunct – in principle, this category would also include argument DPs (vertical axis, column one, line nine) but as we will see, these are not attested in the corpus); and 'RelCl(generalizing)' to a special class of free relative clauses of Historical German introduced by a *sw*-relative pronoun (*swer*, etc.) and interpreted as adverbial clauses approximately meaning 'no matter what/who/when/where …'. In the vertical axis, the semantic value of the antecedents is given. The first seven lines in the first column (from 'Temporal' to 'Concessive') refer to adjuncts, the last one to obligatory arguments of the predicate.

sô	CP	PP	Adv	DP	RelCl (generalizing)	Total
Temporal	53 (21.45%)	15 (6.07%)	13 (5.26%)	14 (5,66%)	0 (0%)	95 (38.46%)
Causal	9 (3.64%)	6 (2.42%)	12 (4.85%)	0 (0%)	0 (0%)	27 (10.93%)
Conditional	94 (38.05%)	0 (0%)	0 (0%)	0 (0%)	1 (0.4%)	95 (38.46%)
Locative	2 (0.8%)	6 (2.42%)	3 (1.21%)	0 (0%)	0 (0%)	11 (4.45%)
Manner	1 (0.4%)	7 (2.83%)	2 (0.8%)	0 (0%)	0 (0%)	10 (4.04%)
Instrumental	0 (0%)	3 (1.21%)	0 (0%)	0 (0%)	0 (0%)	3 (1.21%)
Concessive	2 (0.8%)	2 (0.8%)	1 (0.4%)	0 (0%)	0 (0%)	5 (2.02%)
Argument	0 (0%)	1 (0.4%)	0 (0%)	0 (0%)	0 (0%)	1 (0.4%)
Total	161 (65.18%)	40 (16.19%)	31 (12.55%)	14 (5.66%)	1 (0.4%)	**247 (100%)**

Table 4   Semantics and phrase type of the antecedent in *sô*-resumption

Tables 3 and 4 show a striking contrast between *dô* and *sô*. While in both cases, fronted adverbial clauses are by far the most frequently attested phrase category preceding a resumptive, the most apparent dissimilarity between these two resumption strategies is that *dô* can only resume temporal, causal and locative XPs, while *sô* may take up a number of different antecedents. In the next section, it will be contended that the three semantic classes resumed by *dô* may be reduced to one, since the corresponding structures share an interpretive property that licenses this kind of strategy. On the other hand, *sô* seems to function as a genuine universal resumptive in MHG.

3.2.1   Resumption patterns with dô

It has already been shown, in (3) above, that *dô* can resume temporal clauses, PPs and adverbs. Unsurprisingly, the same goes for DPs in adverbial function:

(19)   *dez   morgens   **do** vande   man den brif*
    the.GEN morning.GEN *dô* found one   the   letter
    'In the morning, a letter was found.' (*Engelth.* 030,16–17)

The other two semantic categories that function as possible *dô*-antecedents in this corpus are illustrated in (20). In (20 a), a causal clause introduced by the (here) subordinating conjunction *wante* appears in a left-peripheral specifier to the left of *dô*; in (20 b), *dô* resumes a locative PP:

(20)   a.   *... [w]ande er iz gelobit   hate. ... **do** ne   wolde   er*
            because he it promised had   *dô* NEG wanted   he

> *di   magit nit   leidigen*
> the   girl   NEG   set-free
>
> 'Since he had promised it ... , he was not willing to set the girl free.' (*MP*. c5rb,14–18)

b. *vnder   wegen ... **do** stund ein affalter*
  under   ways   *dô* stood a   apple-tree
  'Along the way ... , there was an apple tree.' (*Engelth*. 054,19–21)

What temporality, (some kinds of) causality and locality have in common is that they identify a reference location for an event realized, for example, as an embedded clause or a PP. Locality (which pinpoints a concrete place in the actual or another world) and causality (whereby an event which is positioned at some point on the same spatio-temporal continuum is recognized as responsible for the content verbalized in the clause) unquestionably constitute the poles of a scale of abstraction, while temporality can be assumed to be in-between and represents some kind of 'metaphorized' locality. That a cline of the type LOC > TEMP > CAUS is to be assumed is, in fact, nothing new: it is well known that cross-linguistically, temporality is often grammaticalized as causality and locality as temporality (cf. among many others, Traugott 1978, Talmy 1985, Bybee, Pagliuca & Perkins 1991). All 302 (out of 316: 95.56%) temporal antecedents in this corpus make reference to a situation that took place in the past. The three causal constructions in which *dô* functions as a resumptive make reference to an event concluded prior to the speaking time. That causality is tightly bound to – or, more specifically, has its origin in – temporality is witnessed, for example, by the fact that the standard causal complementizer in PDG, *weil* ('because'), derives from a temporal adverb (*dieweil*, in turn originally the accusative form of a nominal expression meaning 'the while'). The localization of an event in the spatio-temporal continuum can be considered to be the relevant function that these three categories have in common and that licenses *dô*-resumption in MHG. Semantic categories like conditionality, modality or concessivity are naturally excluded from this domain. In this sense, *dô* appears to be a highly specialized resumptive in the spirit of Salvesen (2016).

3.2.2   Resumption patterns with *sô*

Differently from *dô*, *sô* can take up eight different categories, some of which are not bound to each other in any obvious way. Apart from resuming temporal antecedents (cf. (4)), which constitute a relevant portion of the data (36.82%), *sô* may take up (exactly the same number – although differently distributed with respect to the phrase categories involved – of) conditional XPs

(21 a), followed by causal (21 b), locative (21 c), manner (21 d), instrumental (21 e) and concessive (21 f) antecedents:

(21) a.   ‹o›b   er   ez   spiet **so** stirbet er   (CP)
              if   he   it   spits   sô   dies   he
              'If he spits it out, he will die.' (*Bamb.* 2v,20)

      b.   *duorch daz*   **so** *quam ein vreislich urteil   ober   daz*
           for-this-reason sô came a   terrible verdict upon the
           volk   (PP)
           people
           'For this reason, a terrible verdict came upon the people.' (*Leipz.* 134vb,15–16)

      c.   *da   inne* **so** *dinete   er   ime biz   an sin ende* (Adv)
           there in   sô served he him until to his end
           'In there [= in that church], he served him until his death.' (*PF.* 14,11–12)

      d.   *un   uffe sineme eigene* **so** *machete er   eine kirchen in*
           and on   his   own   sô made   he   a   church in
           scin nicholai   ere   (PP)
           St   Nicholas' honor
           'And on his own, he founded a church in St Nicholas' honor.' (*PF.* 14,09–11)

      e.   *Mit   disen allen* **so** *wirt   virtribin diu hovbitsuht* (PP)
           with these all   sô becomes expelled the disease
           'With these (recipes), the disease will go away.' (*Zürich.* 44va,14–15)

      f.   *vnd swie so   er   ein heiden was.* **so** *erte   er*
           and although he a   pagan was   sô honored he
           doch   daz heilige cruoce (CP)
           anyway the holy   cross
           'And although he was a pagan, he honored the holy cross.' (*Leipz.* 138vb,18–20)

What is more, the corpus contains two sentences in which a PP argument (22 a) and a so-called 'generalizing relative clause' introduced by the subject pronoun *swer* (glossed as *swer* below) (22 b), respectively, precede *sô* in the prefield (cf. Table 4). Despite containing a subject *sw*-pronoun, the latter is nevertheless interpreted neither as a free relative in the PDG sense nor as an irrelevance conditional. Rather, the sense of the *swer*-clause in (22 b) is 'if someone has done something bad to us'. That is, this structure corresponds

semantically to a standard conditional clause with an indefinite pronominal subject. In other cases, MHG fronted *swer*-relative clauses may also yield a 'whoever' interpretation similar to that of PDG free relatives introduced by the pronoun *wer* ('who'), like in *Wer lacht, wird bestraft* ('Who laughs will be punished'). In these latter cases, we would nevertheless expect the subject to be resumed by a pronominal *d*-resumptive as in PDG:[7]

(22) a.   *An gemainer rede* **so** *suln si sich hvoten* ... (PP)
       at public speech *sô* should they REFL protect
       'They [= the monks] should avoid public speech ...' (*FR.* 5va,12–15)

     b.   *Swer wider vns iht getan hat.* ... **so** *svln*
       swer against us something done has *sô* should
       wir sa denchen ... (RelCl)
       we promptly think
       'If someone has done something against us, we should think ...' (*Spec.* 24r,13–15)

As discussed in 2.1 and 2.2, following Salvesen's (2016) treatment of Old French and modern Scandinavian, there is no specific semantic feature that licenses generalized resumption, and one of the immediate consequences of this is that the resumptive does not match with the antecedent in this respect. The empirical data addressed so far show that *sô*, differently from *dô*, behaves like a generalized resumptive *in the broadest sense* in MHG. Indeed, *dô*, which is deictic in nature, only resumes fronted constituents that more or less concretely localize an event in the past and relate it to the time of speaking or to the time of the situation described in the main clause; *sô*, however, has a 'modal' nature that derives from its original function as a comparative particle. There is no semantic mapping between this resumptive and a temporal antecedent. In a study focusing on resumptive *so* in Early New High German (1350–1650, ENHG), Thim-Mabrey (1987) observes that this element has been available with antecedents other than fronted adverbial clauses at least since the 14th century. The data discussed in Thim-Mabrey's paper reveal that already in Early MHG (11th–12th century), and throughout the MHG period, *so* was used to resume not only CPs, but also PPs (16.19%), adverbs (12.55%) and DPs with an adverbial reading (5.66%).

---

7 See for example (i), which exhibits a pattern richly attested in our corpus. In this example, the left-dislocated constituent and the corresponding pronominal resumptive (*deme*) are in the dative:

     (i)   *Sweme aber daz vnreht lib ist.* ... *deme ist daz liht verluschen*
        *swer.*DAT however the evil dear is ... him is the light canceled
        'Who is not compassionate, instead, does not shine.' (*MP.* a2vb,03–05)

4 Analysis

4.1 MHG is not a Force-V2 language

It seems that an analysis like Wolfe's (2018a) for the generalized resumptive *si* in Late Old French, Østbø's (2006) for Norwegian *då/så* and De Clercq and Haegeman's (2018) for *daar* and *die* in the Ghent dialect cannot be suitable to account for the distribution of *dô* and *sô* in MHG. There are independent reasons to think that MHG is a different case. Although V-to-C movement systematically occurs in this stage of German, Verb-late orders other than resumptive constructions are often attested even in the corpus consulted for the present study. In (23), for instance, at least four different specifiers must be activated: the left periphery of this sentence is occupied by a left-dislocated topic, a conditional clause, an adverbial PP selecting a clausal complement, and a pronominal resumptive referring back to the topic in clause-initial position. Note that the *so*-clause and the PP following it cannot form a complex phrase, since they have different references:

(23) [*Die frawen ... die an der .e. sint*] [*so die*]
      the women who at the marriage are if they
      swanger sint] [*biz an den tag daz si ze kirchen gende*
      pregnant are until at the day that they to church going
      sint] [*die*] *sint nit gebunden ze keiner vasten*
      are they are not bound to no fast
      'Married women who are pregnant, instead, do not have to fast until the day that they go to church.' (*FR.* 4ra,02–08)

The sentence in (23) resembles the structures of Modern Italian discussed in the cartographic literature since Rizzi (1997), and is not an isolated case: in MHG, a number of different prefield combinations are possible that show that the area between ForceP and FinP may host multiple XPs under certain conditions. It would not be desirable to account for this syntactic arrangement by assuming that the three constituents preceding the pronominal resumptive must necessarily be base-generated clause-externally. I will therefore assume that the CP of MHG contains multiple specifiers that may all be activated (for recent treatments of similar left-peripheral constructs, cf. e.g. te Velde 2010 and Walkden 2017 for modern Germanic and Petrova 2012 and Breitbarth to appear for Middle Low German):

(24)   [ForceP [XP [YP [ZP ... [FinP]]]]]

Thus, it seems that adverbial clauses might surface in a CP-internal position (at least in those cases in which they are part of the predicate and relevant

for the deictic interpretation of the matrix clause). On the basis of this observation, it is now possible to test whether adverbial resumption in MHG parallels the same phenomenon in old Romance.

4.2 The syntactic position of MHG *dô* and *sô*

One of the conclusions drawn from the observation of the distribution of *dô* and *sô* in MHG is that the former behaves like a specialized, the latter like a generalized resumptive. Poletto ([2014](#), [2017](#)) proposes that the generalized particle *sì* in Old Italian is a maximal projection in [Spec,ForceP], turning a topic surfacing in a higher TopP into a focus. Ledgeway ([2008](#)) argues that the same element is positioned in Foc°. Salvesen ([2016](#)) assumes that Old French *si* is an XP as a specialized resumptive (i.e. when it resumes an adverbial clause) and a head merged in Top° as a generalized resumptive (in all other cases). These analyses do not seem to match the behavior of *dô* and *sô* in MHG.

4.2.1 The specialized resumptive *dô*

We have seen that *dô* behaves like a specialized resumptive irrespective of whether the antecedent is a CP, a PP or an adverb. Moreover, fronted adverbial clauses and other types of adjuncts (PPs and adverbs) do not exhibit any relevant differences in this language – either on the syntactic or on the semantic level. Indeed, adverbial clauses and PPs that are semantically compatible can be coordinated and resumed by the same element. In ([25](#)), a temporal adverb and a temporal adverbial clause are part of a coordinated complex surfacing in the CP, and the resumptive is *dô*:

(25) *dâr nâch   unde ir   der triuwe   dienest ab gienc **dô***
     after-that and before the faithful duty   ended *dô*
     erblindete   sie
     went-blind she
     'After that and before her faithful duty came to an end, she lost her eyesight.' (*Engelth.* 063,19–21)

An analysis in which the resumptive has a different syntactic position in the left periphery according to whether the antecedent is a PP or a CP can therefore be excluded for MHG. For this element, I assume a derivation similar (but not identical) to that proposed by Grewendorf ([2002](#)) for left dislocation (but also cf. Breitbarth to appear for an analysis of some left-peripheral adverbial clauses of MHG as left-dislocated structures). For structures of the type *Der Hans, der ist echt nett* (lit. 'The Hans, he is really nice'), Grewendorf ([2002](#)) proposes that this linearization results from movement of a 'big DP'

consisting of a full nominal expression and a *d*-pronoun (in this example, this complex would be [DP *der Hans* [D∘ *der*]]) to [Spec,FinP] and successive raising of the left-dislocated constituent to [Spec,TopP], so that the resumptive pronoun is left behind in the specifier of the rightmost CP position and the surface word order can be properly derived. In this analysis, the *d*-pronoun heads the big DP in whose specifier a constituent is hosted sharing given traits (typically ϕ-features, in the case of left dislocation) with it.[8]

In sentences containing a *dô*-resumption, the antecedent and the adverbial item are in a similar relation, since they share specific formal features. In order to preserve the force of this movement-based analysis, but to avoid any problems related to the resulting head status of the resumptive,[9] I propose for

---

8 Authors like Ott (2012) reject Grewendorf's (2002) analysis of left dislocation constructions on the grounds that the parallel phenomenon in the adverbial domain (namely, exactly the cases of adverbial resumption considered in the present paper) would violate the Adjunct Condition (Huang 1982), which prevents movement from adjuncts. In the last two decades, however, Huang's (1982) Condition on Extraction Domains (CED) has been shown to suffer from both theoretical and empirical shortcomings. In particular, a robust class of exceptions from a number of languages seem to make the claim that *any* movement from adverbial constituents is forbidden too strong (for an overview, cf. Stepanov 2007, who suggests that the regularities described by Huang are to be otherwise explained). Even abstracting away from the technical details of this debate, a potential application of the 'big XP' hypothesis to adverbial resumption (which is not explicitly pursued, but also not categorically rejected in this paper) should not necessarily be understood as a violation of the Adjunct Condition: this 'big XP' merged in the middle field would include the constituent that appears in first clause position at the end of the derivation *and* a (in the vast majority of cases) phonetically reduced copy of it. This complex is moved into the CP and the copy (not part of it or of the to-be-fronted phrase) is simply 'dropped' in the first available specifier of the left periphery ([Spec,FinP]). Huang's (1982) condition does not explicitly make reference to such cases as adverbial-resumption patterns, but rather to the fact that nothing *internal* to the adverbial can be extracted, which leads to ungrammaticality in structures like (i) (at least in languages like English):

    (i) *At this university$_i$ [if you study t$_i$], then you will get a good job.

Note that in other languages, even adjunct-internal arguments can be extracted and moved into a higher specifier under specific conditions, thereby violating the genuine core of Huang's constraint. See the following German example from Sternefeld & von Stechow (1988: 387):

    (ii) *Das Bier$_i$ [wenn ich noch t$_i$ trink] bin ich gleich besoffen.*
        the beer if   I   still   drink am I   soon   drunk

        'If I drink this beer, I'll be soon drunk.'

It should therefore not *a priori* be excluded that the correlative structures addressed here might result from a licit application of Grewendorf's take on German left dislocation to the adverbial domain.

9 One of the reviewers legitimately points out that an analysis à la Grewendorf (2002) would also imply a violation of Ross' (1967) Left Branch Condition (LBC), which prevents the leftmost item of an XP from being extracted out of that XP. A derivation of the type '... α_i ... [XP t$_i$ ... X]' should therefore, at least in principle, be ruled out. This is true. However, the following observations should be considered in defense of Grewendorf's approach: while it is certainly true that German, differently from, for example, Slavic, forbids such linear

such constructs a derivation in which the (CP, PP or adverbial) antecedent is base-generated in the middle field and cyclically moves into a dedicated left-peripheral position via the first available CP-specifier, namely [Spec,FinP], in which it leaves a trace. The movement of the XP is lexicalized as the resumptive in the form of a trace spell-out realizing a maximal projection. The bunch of features co-indexed with its antecedent, externalized – in this case – as *dô*, is thus a specifier and not a head. In other words, it may be assumed that the trace left by the adjunct on its way to [Spec,FrameP] corresponds to a phonetically reduced copy of it that retains the referential properties of its antecedent (26):

(26) [$_{\text{ForceP}}$ [$_{\text{TopP}}$ [$_{\text{FrameP}}$ XP$_{\text{[CP/PP/AdvP]i}}$ [$_{\text{TopP/FocP}}$ [$_{\text{FinP}}$ [$_{\text{XP}}$ *dô*]$_i$] [$_{\text{Fin}°}$ Vfin$_y$] [$_{\text{TP}}$ ... t$_i$ ... t$_y$]]]]]]

On the basis of the data discussed above, the left periphery of MHG need not be viewed as a domain with only one or two specifiers. It has been shown that this area is much more complex than has been assumed for other old and modern Germanic and Romance languages, and that its makeup resembles – *mutatis mutandis* (i.e. abstracting away from the not-negligible fact that MHG is a V2 language) – that of Modern Italian. What is more, one of the main claims in this section was that fronted adverbial clauses are not (necessarily) first-merged in the position in which they surface at PF and, more importantly, this position does not have to be clause-external. The prediction that adverbial clauses, differently from other types of adjuncts, are to be conceived as the result not of movement but of base-generation in a specifier above ForceP, may be correct for other languages, but would

---

sequences as **Wessen$_i$ hat* [t$_i$ *Tochter*] *das Pulver erfunden?* (lit. whose has daughter the gunpowder invented, 'Whose daughter invented gunpowder?', from Webelhuth, Bargmann & Götze 2013: 242), it has been shown that in some cases, the LBC may be violated in this language. Grewendorf (1989), for instance, argues that extraction from subject clauses is sometimes possible in which the moved constituent is a left-branch element (cf. e.g. *Wessen Beispiele hat zu analysieren dich mehr frustriert – Haiders oder Sternefelds?*, lit. whose examples has to analyze you more frustrated – Haider's or Sternefeld's, int. 'Did the analysis of Haider's or Sternefeld's examples frustrate you more?'). Other authors discuss configurations that apparently also contradict the absolute inviolability of this constraint in German and related languages, for example the so-called 'what-for' construction (cf. e.g. Pafel 1996 for German, Broekhuis 1992 for Dutch, den Besten 1989 for Afrikaans and West Germanic in general), in which an interrogative constituent is optionally split, thereby moving the *wh*-pronoun together with the preposition 'for' – which are in the left branch of the corresponding XP – into the CP and stranding the selected DP in the middle field (e.g. German *Was hast du für ein Auto?*/Dutch *Wat heb jij voor een auto?*, lit. what have you for a car, int. 'What kind of car do you have?'). It seems therefore that this constraint can occasionally be infringed. For the time being, I do not have much to say about the factors that license a violation of this restriction in German. What is relevant here, however, is that the LBC can be circumvented in some cases and does not pose an unsolvable problem for this analysis.

not solve the conceptual problem of V3 arrangements in MHG, where this 'violation' of the V2 rule is not uniquely connected to adverbial clauses.

The analysis proposed for *dô* captures the distribution of this resumptive, whose behavior is virtually exceptionless; it is therefore unproblematic.

4.2.2 *sô as a hyper-referential resumptive in MHG*

Sô crucially differs from old Romance *si/sì* in that it cannot resume argumental DPs, which are typically resumed by pronominal resumptives. More specifically, it is different from the Old Italian element insofar as it is not associated with focus. Also, it does not necessarily correlate with topic shift,[10] which distinguishes it from (what has been proposed by Nordström 2010 and Eide 2011 in relation to) the Norwegian resumptive *så*. Finally, it does not co-occur with any specialized resumptives, differently from East Flemish *die* and Mainland Scandinavian *så*. The antecedents of MHG *sô* are generally frame-setting topics (*sensu lato*, i.e. preposed XPs that define the context in which the matrix clause is to be interpreted) that may or may not bear a [+contrastive] feature, depending, for example, on whether they are part of an enumeration.

With respect to the resumption of adverbials, *sô* can be defined as a generalized resumptive. This is the first and most widespread function of *sô* when it occurs to the right of a frame-setter. There is, however, no conclusive evidence that this element should be treated as a head in this language

---

10 See the following example (= (22 b) above), for which the pre-context is given in order to assess the information-structural nature of the CP constituent to the left of the resumptive:

(i) **context**

Bi sen=te Gregorius ziten des heiligen pa=bistis do hatte sich daz volk. vorworcht wider vnsern heren got mit irn suonden.

'In St Gregory's – the Holy Pope's – times, the people blasphemed against our Lord God with their sins.'

sentence

duorch daz	*so*	*qam*	*ein*	*vreislich*	*vrteil*	*ober*	*daz*	*volk.*
for-this-reason	sô	came	a	terrible	verdict	upon	the	people

'For this reason, a terrible verdict came upon the people.' (*Leipz.* 134vb,15–16)

In the passage preceding the relevant clause, it is said that in a certain time, people were sinning very much against God. The PP *duorch daz* (lit. 'through this') in the left periphery of the *sô*-clause resumes the situation described in this passage. The referent *daz*, hence, is neither introduced for the first time nor newly introduced in the discourse. In other words, it does not realize a topic shift in the narration, but rather anchors the clause to the spatio-temporal context and the state of affairs given in the preceding passage. At the same time, it is not a focus. Indeed, the DP *ein vreislich vrteil* ('a terrible verdict') is clearly the (information) focus here, which may be assumed to be accordingly stressed. Even if we accept the idea that one and the same clausal structure may contain more than one focused XP, there is no good reason to think that *duorch daz* should be interpreted as such.

stage. In the present discussion, the term 'generalized resumptive' is used in descriptive terms: if an adverbial element can refer back to a large number of categories, this does not necessarily have to imply that it has a minimal-projection status. This fact could rather be interpreted from the opposite perspective, namely in the sense that it *does* exhibit semantic mapping with *all categories* that systematically occur to its left. After all, *dô* and *sô* are in complementary distribution when they refer to an XP in the CP, and it does not seem reasonable to think that in two examples like (27 a) and (27 b) they should have a different status, since they resume (lexically) quasi-identical XPs, the first one with past, the second one with future reference (the latter not being available for the specialized resumptive). From this perspective, it can be assumed that *sô* is a generalized resumptive in the sense that *it is specialized in more (but not all possible) antecedents* than *dô*. It covers all functions that *dô* performs, but its resumptive potential is broader; it has the features of an adverbial *passepartout* resumptive:

(27) a.   *an   daem tag   ... **da** erschain   er   ir*
              on   that   day   *dô* appeared he her.DAT
              'On that day, he appeared to her.' (*Engelth.* 111,02–04)

      b.   *An deme tage **so** zeiget er sine   wnden*
              an   dem   Tag, *sô* zeigt er seine Wunden
              'On that day, he will show his bruises.' (*Mill.* 2v,23–24)

Assuming that in such cases *dô* and *sô* are the adverbial counterpart of the pronominal trace spell-out in left dislocation makes sense for two reasons. Firstly, these two elements do not resume left-dislocatable arguments; if one considers the 'big picture', therefore, it seems that they are 'specialized' in adverbial resumption, and within this domain, *dô* is a specialized and *sô* is a generalized element. CP-internal *d*-resumption in the pronominal domain is typically reserved for left-dislocated topics, which I assume are merged in the middle field and then moved to TopP via [Spec,FinP]. Secondly, in this period of German language history, left dislocation and adverbial resumption are both much more frequent than in (Standard) PDG, although they are not obligatory. Apparently, resumption is an established system-internal strategy to signal that a referential XP has entered the left periphery from a lower position. In the following centuries, both adverbial and pronominal resumption considerably decrease parallel to each other, so that these two patterns – ironically – are confined to spoken language on the one hand (left dislocation and *da*-resumption) and, on the other, to a very formal register of written German (*so*-resumption) in PDG. Hence, it is sensible to assume that adverbial and pronominal *d*-resumption are two sides of the same coin.

Adverbial resumption is constrained neither with respect to the phonological heaviness of the antecedent nor in relation to the formal (quasi-)identity between antecedent and resumptive element. For instance, the full temporal/locative adverb *dô* ('in that moment', 'then') can be raised to the CP-specifier in which it is spelled out and resumed by its homophonous specialized-resumptive counterpart (28 a) or by the corresponding generalized resumptive (28 b); the full modal, on the other hand – in this case, the conditional adverb *sô* ('in this way', 'in this case') – can exclusively be resumed by the generalized resumptive (28 c), since resumptive *dô* is not compatible with semantic references other than locative, temporal or causal deixis:

(28) a. ***do do** wart er tumben fihen gebinmazzet*
then *dô* became he stupid.DAT animals.DAT ranged
'(There was a time when people used to be wealthy.) Back then [= in that time], they were as stupid as beasts.' (*JPhys.* 136va,2–5)

b. *un **da** **so** wurden manegu ceichen follebraht fon*
and there *sô* became many signs accomplished by
in
them
'(Some of them were nominated foremen in other cities.) And there [= in those cities], they accomplished many signs (in God's name).' (*PF.* 01,07–09)

c. ***so so** mag in der vogt niht genoeten / vmbe den*
so *sô* can him the judge NEG oblige to the
schaden ze clagenne
damage to sue
'(If a man is damaged, he has the right to sue the responsible person. The case must also be considered that he does not want to sue.)' (If) so [= if the latter is the case], then the judge cannot oblige him to do that. (*Augsb.* 70rb,15–23)

In the absence of conclusive evidence in favor of an analysis of *sô* as a head in the clausal spine, and in light of the similarities between *dô* and *sô* addressed above, I will assume for the resumptive *sô* structures shown above the same derivation as for the specialized resumptive. The adjunct is base-generated in the dedicated area of the middle field and moved to a CP-internal [FrameP] via [Spec,FinP], where the trace spell-out *sô* is stranded:

(29) [$_{ForceP}$ [$_{TopP}$ [$_{FrameP}$ XP$_{[CP/PP/AdvP]i}$ [$_{TopP/FocP}$ [$_{FinP}$ [$_{XP}$ *sô*]$_i$ [$_{Fin°}$ Vfin$_y$] [$_{TP}$ ... t$_i$ ... t$_y$]]]]]]]

This unified analysis results from a conception of *sô* as a generalized resumptive in the sense of an element that is not referenceless, but rather 'over-referential' in the cases illustrated above. Recall that the left periphery of MHG can host multiple XPs even irrespective of this kind of resumption, which classifies this language as a relaxed V2 language. This means that the assumption of a Rizzian Split-CP in MHG suggests itself for independent reasons, and in the cases considered so far, the presence of the resumptive need not be taken to be essential in ensuring that the linear V2 word order is upheld. Just as in DP left dislocation, both *dô* and *sô* systematically occur to the immediate left of the finite verb. There is no single attestation in which this is not the case. The idea that the resumptive is spelled out in [Spec,FinP], thus, is based on solid empirical grounds.

5 Adverbial resumption after the MHG period

5.1 *da and so in ENHG*

In ENHG, the functions illustrated above for MHG *dô* and *sô* (generally lemmatized as *da* and *so* after MHG) are still highly productive, and the phrase categories that can function as antecedents are more or less the same. Whether the statistical incidence of fronted constituents resumed by *da* and *so* has decreased (to make room for a larger number of non-resumptive patterns) as compared to the data presented in the previous sections, is left for future research. As far as *da* is concerned, however, no causal antecedents appear in the relatively small corpus consulted for this study. This corpus consists of five prose texts contained in the Bonner Frühneuhochdeutschkorpus (Besch et al. 2017), which were selected according to their different geographical provenance and text genre. A sixth text, the Luther Bible (*Luther-Bibel 1545*), which is not part of the digital corpus, was also consulted for comparison. In Table 5, the five main texts are presented by date of composition, dialectal variety and genre.

For space reasons, only selected examples for each category are shown in the following examples. In (30), *da* resumes a temporal adverbial clause (30 a) and a locative PP (30 b). In (31), the antecedents of *so* are, respectively, a conditional clause (31 a), a temporal adverb (31 b) and a causal clause (31 c). (31 d) illustrates a concessive clause resumed by *so*:[11]

(30) a. *Da   sein ... zeit was , **Da** kam , der ...*
       when his   time was   *da* came   who
       'When his time came, there appeared the one who ...
       (**Resumptive *da***; *Kottan*. 113,15,27)

---

11 Examples (30 a) and (31 a) to (31 c) are from Besch et al. 2017, example (30 b) from the Luther Bible (*Luther-Bibel 1545*).

Text	Date of composition	Dialect	Text type
Dat nuwe Boych. Zünfte und Bruderschaften (*Boych*)	1360–1396	Ripuarian (Cologne)	chronicle
Helene Kottanerin (*Kottan.*)	1445–1452	Bavarian (Vienna)	narrative text (autobiography)
Düringische Chronik (*Dür.*)	first half 15th c.	Thuringian	chronicle
Handschrift Pillenreuth Mystik (*Pillen.*)	1463	East Franconian (Nuremberg)	sermon
Passionale Mathesij (*Passion.*)	1587	Upper Saxon (Leipzig)	sermon

Table 5   ENHG corpus

b. *in dem felde / ... / **Da** ist Abraham begraben mit*
in the field *da* is Abraham buried with
Sara seinem Weibe
Sarah his wife
'In this field, Abraham is buried with Sarah.' (**Resumptive *da***; *Luther-Bibel 1545* 25, 10)

(31) a. *wann mein veter ... vnd sein purkgraf her in wellen **so***
if my cousin and his castellan in want *so*
laszt sie her in
let them in
'If my cousin and his castellan want to come in, let them in.' (**Resumptive *so***; *Kottan.* 113,12,2–3)

b. *Unde dornoch **sso** gewonnen sie kynder*
and afterwards *so* received they children
'And afterwards, they had children' (**Resumptive *so***; *Dür.* 17,19–20)

c. *Ind want dem vayde alsus vnrecht geschiet was,* **So**
   and since the Vayd so   injustice happened was *so*
   beuall   der Rait..., dat   ...
   ordered   the council that

   'And since Vayd had had to suffer such injustice, the council
   ordered that ...' (**Resumptive *so***; *Boych* 432,11–13)

d. *obwol   die Jǔ͂den jhn   als jhren Messiam werden*
   although the Jews him as   their Messiah will
   verleugnen ... **So** *wird er   jhme doch selbst   eine Kirche*
   repudiate   *so* will he him PRT himself a   church
   / ... samlen.
         erect

   'For, although the Jews will him repudiate as their Messiah, he
   will nevertheless erect a church for him.' (**Resumptive *so***;
   Passion. 45v,12–19)

In ENHG, the resumption patterns observed in MHG are still present, although for the time being no statistics are available that provide precise information on the frequency and distribution of this construction with respect to what has been observed in the previous sections of this paper.

5.2 *Da and so in PDG*

It is a truism that the investigation of the syntax of Historical German crucially differs from that of the syntax of PDG in that, in the former, the only sources of information to examine the relative distribution of the elements in the clause are written texts. However, some relevant differences may be observed between the data considered so far and the PDG data, to enable one to make at least an educated guess as to the diachronic development of the constructions originally involving the specialized resumptive *dô*/*do* and the generalized resumptive *sô*/*so*.

In the first place, the contexts in which *da* and *so* are used as genuine correlatives have changed. Secondly, the functional overlapping between these two items observed in MHG and ENHG has disappeared: the resumptive system of PDG is now more or less perfectly symmetric.

In PDG, *da*-resumption is limited to spoken language. *Da* is still a specialized resumptive, but it can no longer refer to causal antecedents (therefore, it is perhaps not a coincidence that this pattern is not attested in the ENHG texts that I consulted). It basically resumes temporal (32 a) and locative (32 b) CPs, adverbs and PPs:

(32) a. *Als   ich klein war, / damals   / im   Jahre 1950,* **da**
         when I   little was   back-then   in-the year 1950 da
         war   alles   anders.
         was   everything different
         'When I was little/back then/in 1950, everything was different.'

     b. *Wo   Maria arbeitet, / da   draußen / in dem Dorf,*
         where Maria works   there out   in the village
         da *habe ich niemanden gesehen.*
         da have I   nobody   seen
         'Where Maria works/out there/in the village, I didn't see anybody.'

The use of *so*, meanwhile, is almost exclusively limited to formal registers of written German (i.e. it generally does not occur in conceptually oral written texts). For instance, it is typically attested in written communication in professional contexts and in literary texts. The claim to be made here is that *sô/so* has lost the hyper-referentiality that we observed both in MHG and in ENHG and must be considered a specialized resumptive in PDG. Indeed, it can only resume conditional (33 a) and concessive (33 b) antecedents (these categories in fact belong to the same grammaticalization domain, cf. e.g. Leuschner 2005). The resumption of temporal and causal XPs is attested up to the 18th–19th century (New High German, NHG) with a certain frequency in a number of text genres,[12] while in PDG, this use is no longer

---

12 See the examples in (i) and (ii), both taken from a normative grammar handbook dating back to 1833. Note that in (ii), which serves as an example to illustrate that adverbial clauses can appear at the beginning of an utterance and where *so* resumes a temporal clause introduced by *als* ('when'), the resumptive is written in brackets in the original text, which implies that even in written language, *so* must have been optional (perhaps even obsolete) already in the first half of the 19th century as a resumptive for temporal clauses. In (i), in which a preposed causal clause is resumed by *so*, this is not the case:

(i) *weil   der Papst drohete   u. s. w.,   so musste er   seinen Sinn*
    because the Pope threatened and-so-forth so had-to he his   mind
    beugen.
    bend
    'Since the Pope had threatened him and so forth, he had to change his mind.' (Bauer 1833: 362)

(ii) *als   er ankam, (so) brachte   man ihm eine traurige Nachricht.*
     when he arrived *so* brought   one him a   sad   news
     'When he arrived, sad news was brought to him.' (Bauer 1833: 264, brackets in the original text)

In the current text of this grammar, *so*-resumption with conditional structures is consistently used by the author to describe the concepts that are addressed in this work, as in (iii). This may lead to the plausible conclusion that temporal resumption with *so* must have disappeared from spoken German much earlier than causal and conditional resumption:

productive. Note that *so* competes with (and clearly loses out to) *dann* ('then'), which is highly productive both in written and spoken language, for the resumption of conditional clauses (33 a). Fronted concessive clauses may be taken up by *jedoch* ('nevertheless'). These, however, are not as frequent as the conditional correlative *dann*. In general, *so*-resumption is rather obsolete in the contemporary language. Moreover, *so* no longer productively resumes PPs and adverbs and only refers to fronted adverbial clauses:

(33) a. *Wenn das stimmen würde, **so** / **dann** würde ich dir*
          if   that be-true   would   so / then   would I you
          zu 100% recht geben.
          to 100% agree
          'If that were true, (then) I would agree with you.'

      b. *Wenn auch die Wege im   Tierpark etwas hügelig waren,*
          even-if   the paths in-the zoo   a-bit hilly   were
          ***so** haben wir sie   doch meisterlich genommen*
          so have   we   them PRT   masterly   taken.
          'Even if the paths in the zoo were a bit hilly, we nevertheless managed to walk them.'

It makes sense to assume that in PDG, just as in the previous language stages, these two resumptives are maximal projections occupying [Spec,FinP] at the end of the derivation. If we accounted for the 'hyper-referentiality' of *sô* in MHG and ENHG by arguing that this element is a CP-head base-generated in its surface position, we would be confronted with the undesirable result – bound to the fact that *sô* becomes a specialized resumptive before the 20th century – that its grammaticalization would go from head (generalized resumptive) to specifier (specialized resumptive). This is not what is generally assumed in language-change processes, where original XPs generally become heads (cf. e.g. van Gelderen 2004). What is more, in this case we would imply that grammaticalization is a non-unidirectional phenomenon, since both *dô/da* and *sô/so* derive from fully referential-deictic adverbs (i.e. maximal projections). The implication would be an uneconomical development of the type $XP \rightarrow X° \rightarrow XP$.

(iii) *steht   ein solcher Satz   ... hinten, so nimt der Hauptsatz   das*
       appears   a   such   clause   behind   so takes the main-clause the
       Subjekt es an
       subject   es v.PRT

       'If such a clause appears at the end of the sentence, the main clause will have (the pronoun) *es* as a subject.' (Bauer 1833: 264)

6 SUMMARY AND CONCLUSIONS

In this article, I have conducted a survey of left-peripheral adverbial resumption in MHG, focusing on the distribution and diachronic development of two originally fully deictic elements, *dô* and *sô*. Assuming Salvesen's (2016) distinction between specialized and generalized resumptives, I have shown that *dô* has more or less consistently resumed the same categories (temporal and local adjuncts, also causal XPs up to ENHG) throughout the history of German and thus qualifies as a specialized resumptive. In MHG, ENHG and PDG, *dô* exhibits formal compatibility with all constituent types (CPs, PPs, AdvPs, NPs in adverbial function). *Sô*, however, is a universal resumptive in MHG, where it takes up the reference of virtually any semantic and phrase category (including those resumed by *dô*), and gradually loses its 'hyper-referentiality' to become a specialized element in PDG, where it may only refer to conditional and concessive constituents. Moreover, in the modern language the only possible phrase category that it may resume is CPs.

With respect to the syntactic status of *sô* and *dô*, I have proposed that both the specialized and the generalized resumptives are maximal projections. In the spirit of (but not exactly following) Grewendorf's (2002) analysis of left dislocation in German, I assume that in both cases, the adjunct XP is merged in the middle field and moved into a CP-specifier (a left-peripheral [Spec,FrameP]) via [Spec,FinP], thereby leaving a trace in that position that is spelt out as *sô/dô*. This analysis results from two premises: (i) I do not view MHG *sô*/ENHG *so* as a semantically bleached element, but rather as a resumptive that shows semantic mapping with a number of different categories; (ii) if we were to claim that MHG *sô* is a head and PDG *so* a specifier (which is what is generally contended to distinguish semantically empty from referential items), we should assume that the grammaticalization of this element goes from head (generalized resumptive) to specifier (specialized resumptive), which would be an unexpected and undesirable result.

ELECTRONIC CORPORA

Besch, Werner, Winfried Lenders, Hugo Moser & Hugo Stopp (eds.). 2017. Das Bonner Frühneuhochdeutschkorpus (HTML version). Korpora.org. http://www.korpora.org/fnhd/.

Klein, Thomas, Klaus-Peter Wegera, Stefanie Dipper & Claudia Wich-Reif (eds.). 2016. Referenzkorpus Mittelhochdeutsch (1050–1350) (Version 1.0). Bochum: Ruhr-University Bochum. https://www.linguistics.ruhr-uni-bochum.de/rem/. ISLRN 332-536-136-099-5.

Primary sources not contained in the digital corpora

Luther-Bibel 1545. Zeno.org. http://www.zeno.org/Literatur/M/Luther,
+Martin/Luther-Bibel+1545.
Bauer, Heinrich. 1833. *Vollständige Grammatik der neuhochdeutschen Sprache*.
Berlin: Reimer.

Primary sources included in ReM, but not included in the corpus study

Augsb. = Christian Meyer (ed.), *Das Stadtbuch von Augsburg, insbesondere das
Stadtrecht vom Jahre 1276, hg. und erläutert*, Augsburg 1872.
JPhys. = *Wiener Physiologus*. In Friedrich Maurer (ed.), *Die religiösen Dichtun-
gen des 11. und 12. Jahrhunderts, Bd. I*, Tübingen 1964, pp. 174–244.

References

Adams, Marianne. 1987. *Old French, null subjects and verb second phenomena*:
UCLA dissertation.
Axel, Katrin. 2004. The syntactic integration of preposed adverbial clauses on
the German left periphery: A diachronic perspective. In Horst Lohnstein
& Susanne Trissler (eds.), *The syntax and semantics of the left periphery*,
23–58. Berlin: de Gruyter.
Axel, Katrin. 2007. *Studies on Old High German syntax: Left sentence periphery,
verb placement and verb-second*. Amsterdam: Benjamins.
Axel-Tober, Katrin. 2012. *(Nicht-)kanonische Nebensätze im Deutschen: Synchrone
und diachrone Aspekte*. de Gruyter.
Benincà, Paola. 1984. Un'ipotesi sulla sintassi delle lingue romanze medievali.
Quaderni Patavini di Linguistica 4. 3–19.
Benincà, Paola. 1995. Complement clitics in Medieval Romance: The Tobler-
Mussafia law. In Adrian Battye & Ian Roberts (eds.), *Clause structure and
language change*, 296–325. Oxford: Oxford University Press.
Benincà, Paola. 2004. The left periphery of Medieval Romance. *Studi linguistici
e filologici online* 2(2). 243–297.
Benincà, Paola. 2006. A detailed map of the left periphery of Medieval
Romance. In Raffaella Zanuttini, Hector Campos, Elena Herburger &
Paul Portner (eds.), *Crosslinguistic research in syntax and semantics: Nega-
tion, tense and clausal architecture*, 53–86. Washington, DC: Georgetown
University Press.
Benincà, Paola. 2013. Caratteristiche del V2 romanzo. Lingue romanze
antiche, ladino dolomitico e portoghese. In Ermenegildo Bidese & Feder-
ica Cognola (eds.), *Introduzione alla linguistica del mòcheno*, 65–84. Turin:
Rosenberg & Sellier.

den Besten, Hans. 1989. *Studies in West Germanic syntax*: University of Tilburg dissertation.

Breitbarth, Anne. To appear. Degrees of integration: Resumption after left-peripheral conditional clauses in Middle Low German. In Karen De Clercq, Liliane Haegeman, Terje Lohndal, Christine Meklenborg Salvesen & Alexandra Simonenko (eds.), *And then there were three. The syntax of V3 adverbial resumption in Germanic and in Romance: A comparative perspective.*, Oxford: Oxford University Press.

Broekhuis, Hans. 1992. *Chain-government: Issues in Dutch syntax*: University of Amsterdam dissertation.

Broekhuis, Hans & Norbert Corver. 2016. *Syntax of Dutch verbs and verb phrases*, vol. III. Amsterdam University Press.

Bybee, Joan L., William Pagliuca & Revere D. Perkins. 1991. Back to the future. In Elizabeth Closs Traugott & Bernd Heine (eds.), *Approaches to grammaticalization*, vol. III, 17–58. Amsterdam: Benjamins.

Cardinaletti, Anna. 2010. On a (wh-)moved topic in Italian, compared to Germanic. In Artemis Alexiadou, Jorge Hankamer, Thomas McFadden, Justin Nuger & Florian Schaeffer (eds.), *Advances in comparative Germanic syntax*, 3–40. Amsterdam: Benjamins.

Cognola, Federica. 2013. *Syntactic variation and verb second: a German dialect in Northern Italy*. Amsterdam: John Benjamins.

De Clercq, Karen & Liliane Haegeman. 2018. The typology of V2 and the distribution of pleonastic DIE in the Ghent dialect. *Frontiers in Psychology* 9(1342).

Donaldson, Bryan. 2012. Initial subordinate clauses in Old French: Syntactic variation and the clausal left periphery. *Lingua* 122(9). 1021–1046.

Egerland, Verner & Cecilia Falk. 2010. Si och så. mellan narrativitet och grammatik. In Gunilla Byrman, Anna Gustafsson & Henrik Rahm (eds.), *Svensson och svenskan. Med sinnen känsliga för språk. Festskrift till Jan Svensson den 24 januari 2010.*, Lund: Lunds universitets publikationer.

Eide, Kristin Melum. 2011. Norwegian (non-V2) declaratives, resumptive elements, and the Wackernagel position. *Nordic Journal of Linguistics* 34(2). 179–213.

Ferraresi, Gisella & Maria Goldbach. 2002. V2 syntax and topicalization in Old French. *Linguistische Berichte* 189. 2–25.

Fontana, Josep M. 1997. On the integration of second position phenomena. In Ans van Kemenade & Nigel Vincent (eds.), *Parameters of morphosyntactic change*, 207–250. Cambridge: Cambridge University Press.

van Gelderen, Elly. 2004. *Grammaticalization as economy*. Amsterdam: John Benjamins.

Grewendorf, Günther. 1989. *Ergativity in German*. Dordrecht: Foris.

Grewendorf, Günther. 2002. Left Dislocation as movement. *Georgetown*

University working papers in theoretical linguistics 2. 31–81.

Haegeman, Liliane. 1996. Verb second, the split CP and null subjects in early Dutch finite clauses. *GenGenP* 4(2). 133–175.

Haegeman, Liliane & Ciro Greco. 2018. West Flemish V3 and the interaction of syntax and discourse. *Journal of Comparative Germanic Linguistics* 21(1). 1–56.

Hilde, Sollid & Kristin M. Eide. 2007. On verb second and the *så*-construction in two Mainland Scandinavian contact situations. *Nordlyd* 34(3). 7–28.

Holmberg, Anders. 2020. On the bottleneck hypothesis of Verb Second in Swedish. In Rebecca Woods & Sam Wolfe (eds.), *Rethinking Verb-Second*, 40–60. Oxford: Oxford University Press.

Huang, C.-T. James. 1982. *Logical relations in Chinese and the theory of grammar*: MIT dissertation.

Kaiser, Georg. 2002. *Verbstellung und Verbstellungswandel in den romanischen Sprachen*. Tübingen: Max Niemeyer.

Krause, Thomas & Amir Zeldes. 2016. ANNIS3: A new architecture for generic corpus query and visualization. *Digital Scholarship in the Humanities* 2016/31. Http://dsh.oxfordjournals.org/content/31/1/118.

Ledgeway, Adam. 2008. Satisfying V2 in Early Romance: Merge vs. Move. *Journal of Linguistics* 44. 437–470.

Ledgeway, Adam. 2017. Late Latin Verb Second: The sentential word order of the Itinerarium Egeriae. *Catalan Journal of Linguistics* 16: Generative approaches to Latin syntax (special issue). 163–216.

Leuschner, Torsten. 2005. Ob blond, ob braun, ich liebe alle Frau'n. Irrelevanzkonditionalen als grammatikalisierter Diskurs. In Torsten Leuschner, Tanja Mortelmans & Sarah De Groodt (eds.), *Grammatikalisierung im Deutschen*, 279–307. Berlin: de Gruyter.

Martins, Ana Maria. 2014. An argument against verb-second in Old Portuguese. In Alexandra Fiéis, Maria Lobo & Ana Madeira (eds.), *O Universal e o Particular: Uma vida a comparar, Homenagem a Maria Francisca Xavier*, 207–216. Lisbon: Colibri.

Nordström, Jackie. 2010. The swedish så-construction, a new point of departure. *Working papers in Scandinavian syntax* 85. 37–63.

Ott, Dennis. 2012. Movement and ellipsis in contrastive left-dislocation. In Nathan Arnett & Ryan Bennett (eds.), *Proceedings of the 30th West Coast Conference on Formal Linguistics*, 281–291. Somerville: Cascadilla Proceedings.

Pafel, Jürgen. 1996. Die syntaktische und semantische Struktur von was für-Phrasen. *Linguistische Berichte* 161. 37–67.

Petrova, Svetlana. 2012. Multiple XP-fronting in Middle Low German root clauses. *Journal of Comparative Germanic Linguistics* 15. 157–188.

Poletto, Cecilia. 2013. On V2 types. In Silvia Luraghi & Claudia Parodi (eds.),

The Bloomsbury companion to syntax, 154–164. London: Bloomsbury.

Poletto, Cecilia. 2014. *Word order in Old Italian*. Oxford: Oxford University Press.

Poletto, Cecilia. 2017. Why is it so? An analysis of the V3 cases after sí in Old Italian. Talk given at V3 and Resumptive Adverbials, Ghent, October 5–6.

Ribeiro, Ilza. 1995. Evidence for a verb-second phase in Old Portuguese. In Adrian Battye & Ian Roberts (eds.), *Clause structure and language change*, 110–139. Oxford: Oxford University Press.

Rinke, Esther & Jürgen M. Meisel. 2009. Subject inversion in Old French: Syntax and information structure. In Georg Kaiser & Eva-Maria Remberger (eds.), *Proceedings of the workshop "Null-subjects, expletives, and locatives in Romance"*, 93–130. Konstanz: Fachbereich Sprachwissenschaft.

Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman (ed.), *Elements of grammar*, 281–337. Cambridge: Cambridge University Press.

Roberts, Ian. 1993. *Verbs and diachronic syntax: a comparative history of English and French*. Dordrecht: Kluwer.

Roberts, Ian. 2004. The C–system in Brythonic Celtic languages, V2, and the EPP. In Luigi Rizzi (ed.), *The cartography of syntactic structures, vol. 2: The structure of CP and IP*, 297–328. Oxford: Oxford University Press.

Ross, John Robert. 1967. *Constraints on variables in syntax*: MIT dissertation.

Rouveret, Alain. 2004. Les clitiques pronominaux et la périphérie gauche en ancien français. *Bulletin de la Société de linguistique de Paris* 99. 181–237.

Salvesen, Christine. 2011. Stylistic fronting and remnant movement in Old French. In Janina Berns, Heike Jacobs & Tobias Scheer (eds.), *Romance languages and linguistic theory 2009: Selected papers from Going Romance, Nice 2009*, 323–342. Amsterdam: Benjamins.

Salvesen, Christine Meklenborg. 2013. Topics and the left periphery: A comparison of Old French and Modern Germanic. In Terje Lohndal (ed.), *In search of Universal Grammar: From Old Norse to Zoque*, 131–172. Amsterdam: Benjamins.

Salvesen, Christine Meklenborg. 2016. Resumptive particles and Verb Second. Ms., University of Oslo.

Sitaridou, Ioanna. 2019. Against V2 in Old Spanish. In Miriam Bouzouita, Anne Breitbarth, Lieven Danckaert & Melissa Farasyn (eds.), *The determinants of diachronic stability*, 131–156. Amsterdam: Benjamins.

Stepanov, Arthur. 2007. The end of CED? Minimalism and extraction domains. *Syntax* 10(1). 80–126.

Sternefeld, Wolfgang & Arnim von Stechow. 1988. *Bausteine syntaktischen Wissens*. Opladen: Westdeutscher Verlag.

Talmy, Leonard. 1985. Lexicalization patterns: Semantic structure in lexical forms. In Timothy Shopen (ed.), *Language typology and syntactic description*,

57–149. Cambridge: Cambridge University Press.

Thim-Mabrey, Christiane. 1987. Adverbiale + *so*. Distribution und Funktion des Korrelats *so* im Frühneuhochdeutschen. *Sprachwissenschaft* 12. 180–219.

Traugott, Elizabeth Closs. 1978. On the expression of spatio-temporal relations in language. In Joep Kruijsen (ed.), *Universals of human language*, 369–400. Stanford: Stanford University Press.

Vanacker, Valère Frits. 1980. Een Vlaams adverbiaal steuntje. In Joep Kruijsen (ed.), *Liber Amicorum Weijnen, Een bundel opstellen aan Prof. dr. A. Weijnen bij zijn zeventigste verjaardag*, 73–78. Assen: Van Gorcum.

Vance, Barbara. 1997. *Syntactic change in medieval French: verb-second and null subjects*. Dordrecht: Kluwer.

te Velde, John R. 2010. Towards an account of adverbials in the Vor-Vorfeld: Beyond V2-syntax. *Tampa Papers in Linguistics* 4(1). 62–86.

Walkden, George. 2017. Language contact and V3 in Germanic varieties new and old. *Journal of Comparative Germanic Linguistics* 20(1). 49–81.

Webelhuth, Gert, Sascha Bargmann & Christopher Götze. 2013. Idioms as evidence for the proper analysis of relative clauses. In Manfred Krifka, Rainer Ludwig & Mathias Schenner (eds.), *Reconstruction effects in relative clauses*, 225–262. Berlin: Akademie Verlag.

Wolfe, Sam. 2016. On the left periphery of V2 languages. *Rivista di Grammatica Generativa* 38. 287–310.

Wolfe, Sam. 2018a. *Verb Second in Medieval Romance.* Oxford: Oxford University Press.

Wolfe, Sam. 2018b. Probing the syntax of a problematic particle: Old French 'si' revisited. *Transactions of the Philological Society* 3. 332–362.

Zwart, C. Jan-Wouter. 1997. *Morphosyntax of verb movement: a Minimalist approach to the syntax of Dutch*. Dordrecht: Kluwer.

Østbø, Christine Bjerkan. 2006. The Norwegian function word *så* and Norwegian CP syntax. Talk given at the Workshop on Inversion and Verb Movement, University of Tromsø, January 30–31.

Nicholas Catasso
Fakultät für Geistes- und Kulturwissenschaften
Germanistik – Linguistik
Gaußstr. 20
42119 Wuppertal
catasso@uni-wuppertal.de
http://www.linguistik.uni-wuppertal.de/index.pl?name=catasso