## An HPSG approach to the German *am*-progressive

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## The am-progressive

German does not obligatorily express progressive aspect by syntactic means. Speakers may choose among a few syntactic constructions when they wish to emphasize progressive aspect, but using these is always optional. One of the syntactic choices is the so-called *am*-progressive, in which the verb *sein* 'to be' combines with the word *am* (glossed as PRP) and with what appears to be a nominalized infinitive (glossed as INF), as in (1).

(1) Sie sind am überlegen they are PRP ponder.INF 'They are pondering'

There is by now a substantial body of research dealing with the *am*-progressive, both in the German standard language and in regional or dialectal varieties of German.<sup>1</sup> Originally restricted to certain Western regions, the *am*-progressive is now common across the entire German language area (Elspaß 2016: 367–368), but it is arguably not yet a fully grammaticalized construction. It is typically considered to present an event from an internal perspective by leaving out of view its boundaries (e. g. Zifonun et al. 1997: 1877). Largely for this reason, not all predicates are equally compatible with the *am*-progressive: in terms of Vendler's (1957) semantic four-way distinction, *activity* verbs (such as *überlegen* in (1)) appear to be the class most compatible with progressive aspect, followed by *accomplishments*, *achievments* and *states*, the latter being virtually incompatible with the progressive (e. g. Flick & Kuhmichel 2013). In addition, the *am*-progressive frequently also conveys 'subjective' meanings such as surprise, intensity or (mostly negative) evaluation with regard to the event (Anthonissen et al. 2016; Bildhauer et al. 2025).

The word *am* is originally a contraction of the preposition *an* and the definite article *dem*, however, Zifonun et al. (1997: 1880) prefer to call it *Verlaufspartikel* ('progressive particle').

The categorical status of the third component of the *am*-progressive (*überlegen*, in (1)) varies depending on the syntactic context. It is unambiguously a nominalized infinitive in cases like (2), where the genitive object *der Server*, corresponding to the direct object of the underlying active verb *liefern*, may only attach to the noun *Liefern*, not to the infinitival verb *liefern*.

(2) Sie sind am Liefern [der Server]. they are PRP deliver.INF the.GEN.PL server.GEN.PL 'They are delivering the servers.'

In other cases, objects of the underlying verb may also surface as an accusative NP (as in (3a)) or a dative NP (as in (3b)), suggesting that speakers reanalyze the am-progressive as a periphrastic verb form in such cases.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup>See Andersson (1989), Flick (2016), Flick & Kuhmichel (2013), Kempf (2023), and Van Pottelberge (2004), and many others.

<sup>&</sup>lt;sup>2</sup>This paper is mainly based on data from the DECOW16B web corpus (Schäfer & Bildhauer 2012), the German Reference Corpus (DeReKo Kupietz et al. 2010) and the FOLK corpus of spoken German (Reineke et al. 2023), complemented with a few constructed examples.

(3) a. Die beiden sind [mich] nur am anstarren the both are I.Acc only PRP gape.INF 'The two of them are gaping at me all the time.'

(DECOW16B)

b. ich war noch [Moni] am antworten I was still Moni.dat prp reply.inf 'I was still replying to Moni.'

(DECOW16B)

Occurrences of accusative or dative objects are comparatively rare with the *am*-progressive and not all speakers seem to accept them.

Coordination data such as (4) furthermore suggest that, when a dative or accusative object NP occurs, it forms a constituent with the phrase headed by *am* (rather than a flat structure consisting of the verb *sein*, the object NP, and the phrase headed by *am*).

(4) Ich bin [die Wohnung am putzen] und [deine Sachen am wegräumen]
I am the flat PRP clean.INF and your things PRP put.away.INF
'I am cleaning the flat and putting away your things'

In instances where objects are not realized syntactically, such as (1) above, the element following *am* is ambiguous between a noun (a nominalized infinitive) and an infinitival verb.

Accusative or dative objects do not readily appear between the particle am and the noun/infinitive.<sup>3</sup> Bare nouns, however, do occur in this position, as in (5).

(5) Wir waren ständig am [Geld] wechseln we were constantly PRP money change.INF 'We were constantly changing money.'

(DECOW16B)

We assume that these instances result from word formation processes (either object incorporation, as proposed in Flick & Kuhmichel 2013: 63, or alternatively compound noun formation) and will not further address them in what follows.<sup>4</sup>

Interestingly, the *am*-progressive can also be passivized, as in (6). Although such attestations are rather marginal in corpora, they provide further evidence of syntactic reanalysis and possibly also of an ongoing grammaticalization process.

(6) Server sind am geliefert werden. servernom.pl are prp delivered.ptcp be.inf 'Servers are being delivered.'

(DECOW16B)

As pointed out above, Zifonun et al. (1997: 1880) argue that *am* is not a proper preposition because in some cases, its complement is unambiguously verbal, not nominal. Moreover, coordination data such as (7) show that *am* cannot be treated as a lexical affix on the noun/infinitive.

- (i) Wo Ihr grad am [SchmutzigeWäscheWaschen] seid.
  where you.pl just prp dirty.clothes.wash.inf are

  'Since you are just washing dirty clothes.' (DECOW16B)
- (ii) meine beiden Zwiebeln sind sehr !!! selbständig am [in die Gegend] gucken my both onions are very independently PRP in the surroundings look.INF 'Both of my onions (here: 'dogs') usually look at the surroundings very much on their own.' (DECOW16B)

<sup>&</sup>lt;sup>3</sup>Cf. Stiebels & Wunderlich (1994: 927) who note that "in these constructions all the complements of the verbs must be extracted".

<sup>4</sup>Notice, though, that nominal phrases do occur between *am* and the infinitive on rare occasions, as in (i) (where the author uses a non-standard spelling, though, indicating compound noun formation rather than a full object NP). Similarly, propositional phrases are marginally attested in this position, as in (ii). The analysis proposed here does not currently account for such data.

(7) die (...) waren am [Reden und Diskutieren]
they were PRP talk.INF and debate.INF
'They were talking and debating.' (FOLK)

The verb *sein*, when used with the *am*-progressive, is arguably an instance of the regular copula rather than a special progressive auxiliary. Support for this view comes from the fact that the verb *bleiben* ('to remain') may replace *sein* in the *am*-progressive, as in (8).<sup>5</sup>

(8) dass die gute Laune am Sieden blieb that the good mood PRP boil.INF remained 'that the good mood remained at the highest level' (DeReKo)

## **HPSG** analysis

**Feature geometry** We follow Müller (2025: 351, originally proposed by Kiss 1992) in representing the unexpressed subject (e. g., of infinitives, participles and predicative phrases) as the single member on the SUBJ list, which is a head feature. Since SUBJ is not a valence feature, infinitives, participles or predicative phrases cannot realize their subject directly, but only when it is raised by another head (e. g. an auxiliary or copula verb). Arguments that may combine directly with a head are represented on COMPS, including the subject of finite verbs.

am We analyze am as a verbal head<sup>6</sup> that takes an infinitival verbal constituent as its argument and raises the unexpressed subject to its own SUBJ list (see below on how nominalized infinitives fit into this analysis). It also raises a subset of the complements from its argument. Complements that are not raised will remain unexpressed syntactically.<sup>7</sup> The verbal complement of am is specified as [LEX +]. Assuming that words and verbal complexes are compatible with this specification, whereas other phrasal types are not, this prevents am from combining with verb phrases (ruling out (9)–(10)), while still allowing am to combine with a verbal complex, such as the phrase formed by a passive participle and the passive auxiliary in (6).<sup>8</sup>

- (i) Ich bin [es] [ihr] gerade am erklären.
   I am it.ACC she.DAT just PRP explain.INF
   'I am just explaning it to her.
- (ii) Ich bin [es] [meiner Mutter] gerade am erklären.
  I am it.ACC my.DAT mother.DAT just PRP explain.INF
  'I am just explaning it to my mother.'
- (iii) Ich bin [meiner Mutter] gerade [alles] am erklären.

  I am my.dat mother.dat just everything.acc prp explain.inf
  'I am just explaning everything to my mother.'

Unexpressed verbal arguments must still be existentially bound. This needs to be accounted for independently of the *am*-progressive and will not be addressed here.

 $^8$ It also allows the combination of am with other kinds of verbal complexes, as in (i) below. If we assume that progressive aspect is incompatible with the semantics of modal verbs (much like it is incompatible with the semantics of stative predicates), then instances like (i) are ruled out on semantic grounds.

<sup>&</sup>lt;sup>5</sup>The verb *werden* 'to become', another copula-like verb, seems to be semantically incompatible with the *am*-progressive because it suggests a change of state and would focus on the beginning of the event, whereas one of the main motivations for using the *am*-progressive is to leave out of view the boundaries of the event (see above).

<sup>&</sup>lt;sup>7</sup>Cf. the analysis of the English infinitive marker *to* as a defective auxiliary in Gazdar et al. (1985: 114) and Pollard & Sag (1994: 125). 
<sup>7</sup>Note that we do not constrain the order in which raised complements may be realized syntactically. Linearization among these should perhaps be restricted to neutral/unmarked/non-scrambled order. At this point, we leave the question open as our data does not contain a single instance with more than one object raised. In our judgement, though, at least if a pronoun is involved, raising more than one object seems acceptable, as in (i)–(iii):

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\begin{bmatrix} \text{PHON} & \left\langle am \right\rangle \\ \text{HEAD} & \begin{bmatrix} verb \\ \text{VFORM} & am \\ \text{SUBJ} & \left\langle 1 \right\rangle \end{bmatrix} \\ \\ \text{COMPS} & \left\langle \begin{bmatrix} \text{HEAD} & \left[ \text{VFORM} & inf \right] \\ \text{SUBJ} & \left\langle 1 \right\rangle \\ \text{COMPS} & \left\langle 1 \right\rangle \\ \text{COMPS} & \left\langle 1 \right\rangle \\ \text{COMPS} & \left\langle 1 \right\rangle \\ \text{CONT} & \begin{bmatrix} \text{IND} & 2 \\ \text{LTOP} & 3 \end{bmatrix} \\ \text{LEX} & + \\ \\ \text{CONT} & \begin{bmatrix} \text{IND} & 2 \\ \text{event} \\ \text{ARGO} & 2 \\ \text{ARG1} & 3 \end{bmatrix} \right\rangle \\ \\ \end{bmatrix}
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Figure 1: A lexical entry for am as used in the am-progressive

- (9) \* Sie sind am [dauernd überlegen]. they are PRP constantly ponder.INF Intended: 'They are constantly pondering.'
- (10) \* Sie sind die Server am [uns liefern].
  they are the.ACC.PL server.ACC.PL PRP we.DAT deliver.INF
  Intended: 'They are delivering the servers to us.'

The semantics contributed by *am* is a *prog(ressive)\_rel(ation)*, which shares the event index of its complement. (Alternatively, aspectual information could be represented by features on the event index.) As our analysis focuses on the syntactic aspects of the *am*-progressive, we ignore for now the graded selectional restrictions (in terms of *aktionsart*) that *am* imposes on its verbal complement, noting that these will need to be accounted for in a full version of the analysis. The main reason for treating *am* as a verb (instead of a preposition or some kind of particle) is that objects may be syntactically realized after *am* has combined with its verbal complement, as in (3a)–(3b), and it seems most natural to treat the resulting phrases as verb phrases. A lexical entry for *am* is given in Figure 1. In addition, a linear precedence constraint is needed to ensure that *am* precedes its infinitival complement in a *head-argument-phrase*. This is of course an additional stipulation, but it reflects the origin of *am* as a preposition. As a last step in the analysis, the copula *sein* selects the verb phrase headed by *am* and, if finite, raises the element on SUBJ to its own COMPS list to make it available for syntactic realization. Figure 2 illustrates this.

Our analysis should be compatible with passive formation as proposed in Müller (2025:Ch. 16): in order to license sentence (6), for example, a lexical rule yields the participle *geliefert*, which combines with the (infinitival) passive auxiliary *werden*. The passive auxiliary raises the only remaining element from the COMPS list of *geliefert*. Since it is itself a non-finite verb, it stores the raised element on its SUBJ list. The verb *am* then takes this infinitival verb phrase as its complement.

**Nominalized infinitives** The analysis sketched so far covers data like (1) as a special case (either the infinitival verb has no complements, or none of the complements were raised by am). However, it does not cover cases like (2) where the complement of am is unambiguously nominal.

<sup>(</sup>i) \* Sie sind am [überlegen müssen]. the are PRP ponder.INF need.INF

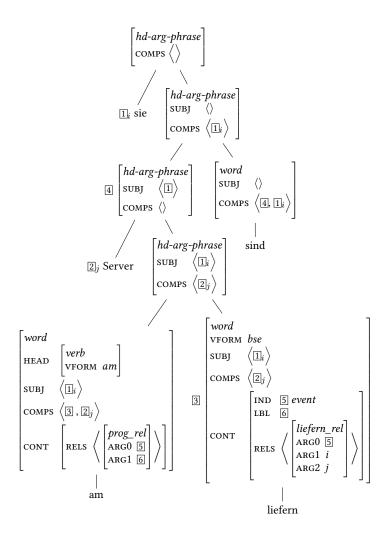


Figure 2: Analysis of the sentence sie Server am liefern sind

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\begin{bmatrix} \textit{n-v-phrase} \\ \textit{head} & \begin{bmatrix} \textit{verb} \\ \textit{vform} & \textit{bse} \\ \textit{subj} & \boxed{1} \end{bmatrix} \\ \textit{spr} & \langle \rangle \\ \textit{comps} & \langle \rangle \\ \textit{cont} & \begin{bmatrix} \textit{ind} & \boxed{3} \\ \textit{key} & \boxed{\textit{lbl}} & \boxed{5} \end{bmatrix} \\ \textit{rels} & \boxed{2} \\ \end{bmatrix} \\ \textit{dtr} & \begin{bmatrix} \textit{head} & \textit{noun} \\ \textit{subj} & \boxed{1} \end{pmatrix} \\ \textit{dtr} & \begin{bmatrix} \textit{key} & \boxed{4} \\ \textit{rels} & \boxed{4} & \begin{bmatrix} \textit{process\_noun\_rel} \\ \textit{arg1} & \boxed{3} \\ \textit{arg2} & \boxed{5} \end{bmatrix} \end{pmatrix} \oplus \boxed{2} \end{bmatrix}
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Figure 3: Unary-branching phrase for accommodating nominalized infinitives in the am-progressive

We assume that such nominalised infinitives are produced by a lexical rule akin to Machicao y Priemer's (2017: 145) Event Nominalisation Lexical Rule. Crucially, the lexical rule turns the semantics of the input verb into the semantics of a noun by providing a referential index and an additional relation on RELS linking that referential index to the event index of the input verb. In order to be compatible with our analysis of the am-progressive, however, the complement of am must have the semantic representation of a verb phrase, i. e., an event, not a referential object (unless one is willing to accept different semantic representations for amprogressives with nominal and verbal complements; we are not aware of any evidence that would justify such an approach). The problem here is that head-argument-phrases, as used in our analysis of the am-progressive so far, obey the Semantics Principle, which among other things states that the RELS list of the mother is the concatenation of the RELS lists of all the daughters. In other words, once a relation is added, it can only be 'removed' by embedding the phrase as a daughter in another phrase that is not subject to the Semantics Principle. For now, we will adopt a less-than-ideal solution by positing a unary-branching phrase (given in Figure 3) whose daughter is the projection of a nominalised infinitive. Its semantics is such that am can interact with it in the same way it interacts with an infinitival verb phrase. Figure 4 illustrates this. Notice how the object NP der Server is assigned genitive case when it appears as the complement of a noun, whereas it is assigned accusative when it appears as a verbal complement (as in Figure 2).

Data like (1), where no complements are involved, can be analyzed both as nominalized infinitives and as infinitival verb phrases. Though not desirable from a grammar engineering point of view, this is intentional and reflects the ambiguous status of the structure at the current stage of grammaticalisation.

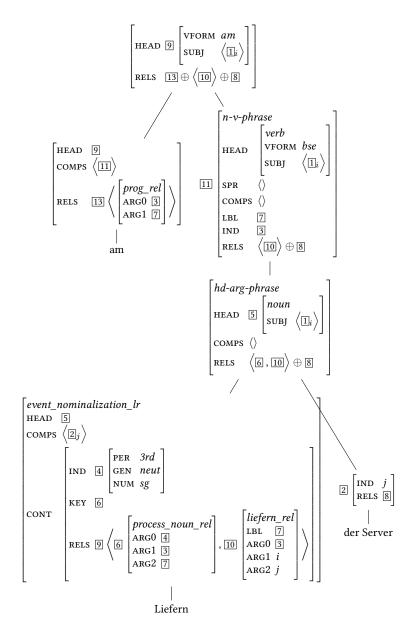


Figure 4: Analysis of the phrase am Liefern der Server

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