

Prospective aspect constructions in West Germanic.

A comparative corpus study of German and Dutch

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Abstract

Germanic languages are poor in grammaticalized expressions of viewpoint aspect. Many conceptual subcategories belonging to viewpoint aspect have been neglected in the study of aspect in these languages. This paper reports on a comparative corpus study of one such subcategory, namely prospective aspect (e.g., English *be about to*) as expressed by German [*davor stehen zu* INF] ‘lit. stand before to INF’ and Dutch [*op het punt staan (om) te* INF] ‘lit. stand on the point to INF’. Both constructions derive from an expression with locational meaning and include a posture verb meaning ‘stand’. Given that German and Dutch vary in the degree of grammaticalizing aspect (e.g., the ‘*am*-Progressiv’ in German vs. the ‘*aan het*-progressief’ in Dutch), we raise the question whether these prospective constructions exhibit such variation as well. Based on previous literature and a conceptual working definition of prospectivity, we start from the hypothesis that prospective aspect constructions are restricted to infinitives denoting a change of state. Our corpus study shows that variation between the German and Dutch constructions is surprisingly limited, and that both constructions display a clear preference for change-of-state-denoting infinitives but are not restricted to this semantic type of predicate.

Keywords: prospective aspect, corpus linguistics, grammaticalization, German, Dutch

1. Introduction¹

Compared to the Romance and Slavic languages, Germanic languages are poor in grammaticalized expressions of viewpoint aspect. Slavic languages such as Russian show a systematic distinction between perfective and imperfective aspect throughout the entire verbal paradigm (e.g., Forsyth 1970; Dickey 1997; Gvozdanović 2012); Romance languages do so at least in the realization of the past tense (e.g., de Swart 1998; Bary 2009). The only aspectual category that seems to have grammaticalized in all Germanic languages is the perfect (of the ‘have’-type, cf. Dahl & Velupillai 2013).

The perfect, in Comrie’s (1976:52) definition, “relates some state to a preceding situation”. In the sentence *I have lost my glasses*, the perfect construction licenses the inference that the glasses are still lost. The simple past *I lost my glasses* goes without such an inference (e.g., Comrie 1976:52). There is some debate on whether the ‘perfect’ is really an aspectual category or belongs to the domain of tense (e.g., Ritz 2012 and references therein). We will not review the extensive literature on this issue here but adopt Dik’s (1997:221) distinction between ‘aspect proper’ and ‘perspectival aspect’. The perfective vs. imperfective dichotomy represents aspect proper, whereas the perfect represents a perspectival aspect.

The perfect is not the only instance of perspectival aspect. A further subtype is the so-called prospective aspect, which makes up the mirror image of the perfect.^{2,3} Whereas the perfect relates a state to a preceding situation, the prospective relates a state to a subsequent situation. An English example, taken from Comrie (1976:64), is presented in (1). The sentence expresses that the referent of *ship* is in a state preceding an imminent event of sailing.

- (1) The ship *is about to sail*.

Prospective aspect is not fully grammaticalized in the Germanic languages, although at least some of them have developed fixed strategies for the expression of this aspectual notion.⁴ Heine (1994:44) lays out two common sources for prospective expressions. First, prospective constructions originate from a volitional verb often

¹ We would like to thank the organizers and audience of *A Germanic Sandwich 8* (17 March 2022) and two anonymous referees for their useful, constructive criticism.

² As with much aspectual terminology, many different terms are in circulation for this type of aspect, including ‘proximative’ (König 1993, 2000; Heine 1994; Romaine 1999; Kuteva 2001; Kuteva et al. 2019), ‘proximal future’ (Collins 2014; Hill to appear), ‘futurish’ (Declerck et al. 2006), ‘imminent’ (Van Rompaey et al. 2015) and ‘pre-inchoative’ (Wierenga 2022; Wierenga & Breed submitted). We follow Anderson (1973), Comrie (1976) and many others in using the term ‘prospective’.

³ We point out that prospective aspect is underrepresented in general work on (viewpoint) aspect, for example lacking a dedicated chapter in the *Oxford Handbook of Tense and Aspect* (Binnick 2012).

⁴ Bogaards (2023a) argues that different means of expressing prospective aspect in Dutch are grammaticalized to different degrees.

meaning ‘want’. Such a construction is found, for example, in Persian (Iranian < Indo-European; Kuteva 2001:93; Davari & Naghzguy-Kohan 2017:180-184) and English-based Creoles such as Tok Pisin (Romaine 1999).

Second, prospective constructions develop from locational expressions. This strategy is found in the West Germanic languages. Besides *be about to*, English also uses [*be on the verge/brink/cusp/edge/point of X*] and [*be on the/one’s way/road to X*] to encode prospectivity (Declerck et al. 2006; Collins 2014; Van Rompaey et al. 2015; Hill to appear). Dutch and German have prospective constructions built around a posture verb meaning ‘stand’ which—in its literal use—indicates the static location of its subject referent (Lemmens 2002; Bogaards 2023a; Fleischhauer & Gamerschlag 2019; Fleischhauer et al. 2019; Fleischhauer 2023): Dutch [*op het punt staan (om) te INF*] ‘lit. stand on the point to INF: be about to INF’ and German [*davor stehen zu INF*] ‘lit. stand in front of INF: be about to INF’. Afrikaans has a prospective construction [*op die punt wees om te INF*] ‘lit. be on the point to INF’ which seems to be similar to the Dutch construction (Wierenga 2022:141). Swedish expresses prospective aspect with a combination of the verb *hålla* ‘hold’ and the spatial preposition *på* ‘on, of, at’ (Blensienius 2015:9); whether this constitutes a third strategy or corresponds to the locational source is subject to further research.

It can be pointed out here that English, Dutch and German make up a prospective Germanic Sandwich, as shown in (2). One of the strategies in English involves nouns like *brink*, *verge*, *cusp*, *edge* and *point*, all of which refer to point-like concepts, just like the Dutch construction which contains the noun *punt* ‘point’. Unlike English, the matrix verb in the Dutch pattern is a verb meaning ‘stand’ (*staan*)—a property shared with German (*stehen*).⁵ Finally, German does not employ a noun meaning ‘point’ but rather a spatial expression meaning ‘in front of’ (*davor*). The ingredients of the sandwich in (2) are thus ‘point-like’ (English), ‘point-like’ plus ‘standing’ (Dutch), and ‘standing’ (German).

⁵ As one reviewer points out, English sometimes allows posture verbs as the matrix verb in expressions with *brink*, *verge*, *point* and so on—particularly *sit*. However, the combination with *be* is much more common. For example, a Google search for “is on the verge of” yields 13.1 million results, as opposed to 345.000 results for “sits on the verge of”. For this reason, we leave the posture verbs out of consideration in the English patterns. Vice versa, as the same reviewer notes, Dutch may also sometimes combine *op het punt* ‘on the point’ with *zijn* ‘be’ rather than *staan* ‘stand’. However, this often leads to losing the prospective meaning. For example, in the sentence *Ik ben nu op het punt dat ik ontslag wil nemen* ‘I’m now at the point that I want to quit my job’, the situation *ontslag willen nemen* ‘want to quit one’s job’ already holds. This observation underscores the idea that prospectivity in Dutch is tied to the specific sequence [*op het punt staan (om) te*], seeing as switching out the matrix verb often leads to losing this connection.

- (2) a. The bomb is on the *point* of exploding. [English]
b. De bom *staat* op het *punt* om te exploderen. [Dutch]
c. Die Bombe *steht* kurz davor zu explodieren. [German]

In this paper—out of the ‘prospective sandwich’ in (2)—we limit ourselves to German and Dutch because these languages both converge and diverge on key components of their prospective constructions. As pointed out above, both employ a posture verb meaning ‘stand’ as the matrix verb of the construction, but their prospective meaning appears to be predicated on very different spatial metaphors: Dutch *op het punt* ‘on the point’ versus German *davor* ‘in front of’. In our view, this makes them interesting and suitable candidates for an exploratory comparison of prospective aspect constructions in West Germanic.

Illustrative corpus examples of Dutch [*op het punt staan te* INF] and German [*davor stehen zu* INF] are given in (3). We discuss the makeup of the two constructions as well as constructional variants in Section 3.⁶

- (3) a. Amerika mag dan *op het punt staan* de oorlog in Irak *te winnen*, [...].
‘While it may be true that America is on the verge of winning the war in Iraq, [...].’ (SoNaR WR-P-P-G-0000054692)
b. Immerhin *stehe* man kurz *davor*, die spanische Liga *zu gewinnen* [...].
‘At least, one is on the verge of winning the Spanish league [...].’
(U13/APR.04205 Süddeutsche Zeitung, 30.04.2013, S. 29; Dreieck mit stumpfen Kanten)

Besides the matrix verb meaning ‘stand’ (*staan/stehen*), other similarities between the Dutch and German constructions are that they involve an originally spatial preposition (*op/vor*) and a variable infinitive (in (3): *winnen/gewinnen* ‘win’) which denotes the situation construed with a prospective viewpoint by the construction. Given that Dutch and German are known to vary in the grammaticalization of aspectual viewpoints—e.g., the *aan het*-progressief versus the *am*-Progressiv—this raises the question whether these prospective constructions impose similar or different restrictions. That is to say, although the Dutch and German progressive constructions contain similar components (a preposition meaning ‘on/at’, a matrix verb meaning ‘be’ and a variable infinitive), the Dutch construction is more grammaticalized than the German one (Ebert 2000; Van Pottelberge 2007; Behrens et al. 2013). In the same vein, the structural similarity between the Dutch and German prospective constructions does not necessarily entail equivalent grammatical status.

⁶ Whenever we provide attested examples, we give the corpus name and document ID in brackets below the translation or, alternatively, a link to the website where the sentence was found.

At present, however, there is hardly any research into how prospective aspect is encoded in Germanic (notable exceptions are the treatments of English expressions by Declerck et al. 2006, Collins 2014, Van Rompaey et al. 2015 and Hill to appear). To fill this gap, the present paper presents a comparative analysis of the Dutch and German prospective aspect constructions in (3). We aim at examining similarities as well as differences, focusing primarily on the semantic types of infinitives licensed by the two constructions. It has been mentioned occasionally in the literature on prospective aspect that such constructions favor change-of-state-denoting expressions (e.g., Declerck et al. 2006 and Van Rompaey et al. 2015 for English; Fleischhauer & Gamerschlag 2019 and Fleischhauer et al. 2019 for German; Bogaards 2023a and Boogaart & Bogaards 2023 for Dutch).

We will discuss several examples to illustrate this point. First, Romaine (1999:332) argues that prospective aspect in the English-based Creole language Tok Pisin is restricted to a few change-of-state verbs. Similar restrictions have been suggested for other languages as well, including the Nilo-Saharan language Maa (König 2000) and the Bantu language Fwe (Gunnink 2018:379). The English prospective construction [*be on the the/one's way/road to X*] is, according to Van Rompaey et al. (2015:237), restricted to transitional (i.e., change-of-state) predicates. And in Dutch, besides [*op het punt staan (om) te INF*] there is also the similar prospective construction [*op het punt staan van X*] ‘lit. stand on the point of X’, which seems unable to combine with expressions that do not involve change-of-state (Bogaards 2023a). For example, the activity verb *zwemmen* ‘swim’ in (4) gives an ungrammatical result:

- (4) **Ze stonden op het punt van zwemmen naar de drenkeling.*
(Intended: ‘They were about to swim towards the drowning person.’)

Based on these cross-linguistic observations, we take the change-of-state or CoS-hypothesis (adopted from Fleischhauer 2023) in (5) as a starting point for our corpus-based investigation of prospective constructions.

- (5) **CoS-hypothesis**
Prospective aspect is restricted to change-of-state-denoting expressions.

The CoS-hypothesis formulates a restriction on the type of predicates admissible in a prospective aspect construction. In a strict sense, the hypothesis formulates a restriction on the semantic type of the predicate licensed in the construction, that is, licensing only CoS-denoting expressions. In a weaker sense, the hypothesis states that any expression that does not lexically denote a CoS is shifted towards a change-of-state interpretation (i.e., coerced into a CoS-denoting expression). We will investigate

whether the hypothesis holds true and will argue that neither the strong nor the weak version of the hypothesis actually holds for the Dutch and German constructions illustrated in (3). However, as the quantitative data presented in the paper will show, the constructions do show a clear affinity towards CoS-denoting expressions.

The structure of the paper is as follows. In Section 2, we discuss the concept of prospectivity and develop a working definition on the basis of Dutch and German language data. The make-up of the constructions encoding prospective aspect in Dutch and German is the topic of Section 3. In Section 4, we present the results of our corpus study on the prospective constructions exemplified by (3). Section 5 concludes and puts forward suggestions for further study.

2. Prospective aspect

The aim of this section is to outline a conceptual definition of prospective aspect that is crosslinguistically valid for at least Dutch [*op het punt staan (om) te* INF] and German [*davor stehen zu* INF]. Since a full-fledged theoretical account of prospective aspect is lacking, we will only attempt to make a first approximation that can be used as a working definition for our comparison. For our basic assumptions, we follow Dik (1997) in conceptualizing prospective aspect as a subtype of perspectival aspect, i.e., those aspectual viewpoints that relate a situation to a situation-external temporal point. Furthermore, we will draw on selectional approaches to aspect (i.a., Bickel 1996, 1997; Michaelis 2004; Koss et al. 2022) to define the makeup of the prospective viewpoint in terms of boundaries and phases along a temporal axis.

As a starting point, we will review the core ingredients of prospectivity as noted in the literature. Comrie (1976:64) discusses “prospective forms, where a state is related to some subsequent situation”. That is, the prospective viewpoint consists of two parts, or has “dual time reference” (Declerck et al. 2006:106): the situation itself, and a state preceding it in which that situation does not hold. In the examples under (6)—with Dutch *het huis verkopen* ‘sell the house’ in (6a) and German *die Werke verkaufen* ‘sell the works’ in (6b) as embedded predicates—the prospective perspective construes a state preceding the sale, i.e., one where the house/works have not yet been sold. In Dik’s (1997) terminology, this preceding state is the situation-external temporal point.

- (6) a. *Ze stonden op het punt het huis te verkopen* toen Jill over het bestaan van feng shui hoorde.
'They were about to sell the house when Jill learned about the existence of feng shui.' (SoNaR WR-P-P-H-0000024654)
- b. Die Bande soll kurz *davor gestanden haben, die Werke* ins Ausland zu verkaufen.
'The gang was about to sell the works abroad.'
(A10/JUN.06715 St. Galler Tagblatt, 21.06.2010, S. 8; Millionendiebstahl aus Rache)

The prospective relation of precedence is filled in further by Heine (1994:63), who characterizes the preceding state as “a temporal phase located close to the initial boundary of the situation”. This ‘closeness in time’ between preceding state and realization is also called ‘imminence’ (Anderson 1973:38; Kuteva 2001:92; Van Rompaey et al. 2015). Moreover, it has been pointed out that prospectivity provides “no implication about whether the situation actually occurred or not” (Kuteva et al. 2019:859), in other words, “underspecifying its realization” (Bogaards 2023a). All these specifications apply to Dutch *op het punt staan* in (6a) and German *davor stehen zu* in (6b): within the interval delineated by the prospective aspect, the sale of the house/works is not certain, but still somehow ‘close in time’.

Any conceptual definition of prospective aspect thus has to account for at least three meaning components: (i) situation-externality, more specifically precedence; (ii) imminence; and (iii) underspecification of realization. Taking a selectional approach to aspect (cf. Koss et al. 2022 and references cited there), we assume that situations—as linguistically manifested temporal representations expressed by VPs (i.e., a main verb and, if present, its internal argument, cf. Verkuyl 1972)—can be modeled by regular alternations of two primitive building blocks. These building blocks are phases (φ) and boundaries (τ) (Bickel 1996:196), notated between square brackets (e.g., [$\tau \varphi$] for a boundary followed by a phase). Phases φ extend in time (durative) and may be internally homogeneous (stative) or heterogeneous (dynamic); boundaries τ are instantaneous (punctual) and may mark transitions between phases.

The ‘selectional’ part of this approach concerns the interaction with viewpoint aspect, which is defined by operators *selecting* phases and/or boundaries (Bickel 1996:196). For instance, with these building blocks, the ingressive viewpoint (‘beginning’, ‘starting’) can be modeled as a transition τ from a given situation not holding ($\neg\varphi$) to holding (φ), i.e., [$\neg\varphi \tau \varphi$] (Bogaards 2022:11). Put differently, an initial boundary is defined by being sandwiched in between the negated and affirmed version of a phase corresponding to one and the same situation.

On this account, the prospective is similar to the ingressive viewpoint in that part of its construal involves a transition from ‘not holding’ to ‘holding’—for example, the

house/works in (6) going from ‘not sold’ to ‘sold’. However, the representation $[\neg\varphi \tau \varphi]$ is not adequate since the transition is not actually asserted due to its realization being underspecified. We can mitigate this by adding a “pre-state” (Fleischhauer et al. 2019:7) not part of the situation itself (situation-external) but derived from it by the prospective viewpoint. The pre-state precedes the transition and hence corresponds to the initial state $[\neg\varphi]$ in which the transition has not (yet) realized and the situation does not hold. This correspondence also extends to $[\tau \varphi]$ with respect to the arguments of the situation-denoting predicate: the prospective situation in (6b), for instance, can only be said to be realized if it is the specific referent of *die Werke* ‘the works’ that was sold and *die Bande* ‘the gang’ that did the selling.

Considering that the transitional component of the prospective viewpoint is tied directly to the temporal representation of the selected situation, we regard it as primary and notate it accordingly as $[\neg\varphi_1 \tau \varphi_1]$, and the derived pre-state as $[\varphi_2]$. As we stated above, the pre-state $[\varphi_2]$ corresponds to the same situation as $[\varphi_1]$, specifically to its negated version $[\neg\varphi_1]$. So, as far as situation type and arguments are concerned, $[\varphi_2]=[\neg\varphi_1]$, except that $[\neg\varphi_1]$ is characterized by immediate realization or ingression of the situation (i.e., being followed by $[\tau \varphi_1]$), whereas $[\varphi_2]$ is not. To account for the underspecification of $[\neg\varphi_1 \tau \varphi_1]$ and its ‘imminence’ vis-à-vis $[\varphi_2]$, we introduce an imminence operator IMM taking scope over the transition, as in (7).

$$(7) \quad [\varphi_2] \ \& \ \text{IMM}([\neg\varphi_1 \tau \varphi_1])$$

The key question raised by (7) is what exactly the IMM operator entails. One way of defining IMM is by appealing to the notion of ‘future’, specifically some ‘proximal future’ or ‘very near future’ to set it apart from regular expressions of futurity (e.g., English *will*). This seems to be the route taken by Declerck et al. (2006:106-108) when they call expressions like *be about to* “futurish”, and by Kuteva et al. (2019:860), who characterize the prospective viewpoint as “purely aspectual”, with its “essential semantic characteristic being imminence”, which they define in turn as “closeness in time”.

Such a definition, however, faces at least three problems. First, in Dutch and German at least, the notion of ‘very near future’ or ‘close in time’ can be canceled out by modifiers designating the pre-state to extend over a long period of time. An example is Dutch *een lange tijd* ‘for a long time’ in (8).⁷ There seems to be no semantic conflict between the contribution of the prospective viewpoint and modifiers of this type, which would be expected if that contribution boiled down to just closeness in time. We therefore claim that realization being ‘close in time’ is not a

⁷ We have not encountered a comparable example in our German data, which might be because German shows a strong preference for ‘close in time modifiers’ like *kurz* ‘short’ to be used in this construction. We turn to this issue in more detail in Section 4.5.

necessary semantic ingredient of but rather a conventional implicature associated with prospective aspect in Dutch and German. Whether this is true for other languages is an open question that can only be answered with more crosslinguistic data.

- (8) De blauwvintonijn *staat al een lange tijd op het punt om uit te sterven*. Het is dan ook niet zo gek dat je de hoofdprijs betaalt voor een stukje van deze vis. ‘The blue fin tuna has been on the verge of extinction for a long time already. No wonder then that you pay top dollar for a piece of this fish.’ (<https://www.culy.nl/inspiratie/het-duurste-eten-ter-wereld-2>)

Second, prospective aspect and future tense are both nonveridical operators: they entail neither the truth nor the falsity of the embedded proposition (e.g., Giannakidou 1999; Giannakidou & Zwarts 1999; Giannakidou & Mari 2018). Thus, neither the German *werden*-future in (9a) nor the Dutch *zullen*-future in (9b) entails that the predication is true at the moment of speaking. It remains to be seen whether it will become true at some time in the future.

- (9) a. Die Firma *wird* verkauft. [German]
‘The company will be sold.’
b. Het bedrijf *zal* verkocht worden. [Dutch]
‘The company will be sold.’

The German *werden*-future as well as the Dutch *zullen*-future are epistemic futures (cf. Zifonun et al. 1997:1699 for German, Broekhuis & Verkuyl 2014 and Giannakidou 2014 for Dutch, and Giannakidou & Mari 2018 for a general discussion of epistemic futures).⁸ The examples in (10) show that the future sentences do not just make a prediction but function—as Giannakidou & Mari (2018:88) phrase it—“as epistemic equivalents to *must*”.

⁸ The English *will* future differs with respect to epistemic modality from the Dutch and German periphrastic future constructions (cf. Giannakidou & Mari 2018).

- (10) a. Es *wird* jetzt 5 Uhr sein. [German]
'It must be now 5 o'clock.'
b. Het *zal* nu 5 uur zijn. [Dutch]
'It must be now 5 o'clock.'
(Giannakidou & Mari 2018:88)

Whereas the future tenses are epistemic futures, prospective aspect appears to lack this epistemic component. As a consequence, the future signals a higher degree of certainty on the speaker's part than the prospective viewpoint. To illustrate, consider the two-part sequences under (11), featuring the German *werden*-future in (11a) and the prospective in (11b). Both locate the situation *die Firma verkaufen* 'sell the company' sometime in the future. However, the speaker's epistemic commitment can only be canceled with the prospective, as witnessed by the fact that the continuation in (11) is incoherent in (11a) but not in (11b). The problem for defining 'imminence' in terms of futurity, then, is that distinguishing (11a) from (11b) by assuming that the latter is 'closer in time' or a 'nearer future' than the former cannot account for the difference in (11), which we relate instead to epistemic modality. All in all, this position does not rule out that imminence is a partially temporal notion but it does pinpoint a relevant difference between imminence and futurity.

- (11) a. Die Firma wird verkauft werden. #Aber ich bin sicher, dass sie letztlich nicht verkauft werden wird.
'The company will be sold. #But I'm confident that it won't be sold in the end.'
b. Die Firma *steht davor verkauft zu werden*. Aber ich bin sicher, dass sie letztlich nicht verkauft werden wird.
'The company is about to be sold. But I'm confident that it won't be sold in the end.'

Third, perfect aspect markers may take scope over prospective constructions, resulting in a counterfactual interpretation. This is true in German and Dutch (Bogaards 2023a) but also in genetically unrelated languages such as Turkish and Basque (Jendraschek 2014). Sentence (12a) gives a Dutch example: *op het punt staan* is marked for perfect aspect with a temporal auxiliary *hebben* 'have' and a perfect participle *gestaan* 'stood'. The only possible interpretation of (12a) is that the situation *personeel ontslaan* 'fire staff' was not realized in the end. By contrast, the future auxiliary *zullen*

is not compatible with perfect marking, see (12b).⁹ Again, this contrast cannot be explained just by a difference in ‘closeness in time’.

- (12) a. Stegeman van Hemingway *heeft* vorige maand *op het punt gestaan* personeel te ontslaan. Dat hoeft voorlopig niet.
‘Stegeman of [restaurant] Hemingway was on the brink of firing staff last month. For the time being, that won’t be necessary.’ (SoNaR WR-P-P-G-0000065236)
- b. *Stegeman is vorige maand personeel zullen ontslaan.

How can these issues be mitigated? An alternative way of defining IMM, which we will pursue here, is to appeal to modality. Relating prospectivity to modality goes back to at least Anderson (1973:37), who observed that “[e]ven [prospective] expressions apparently formed from components that are not in themselves specifically ‘modal’ [...] tend to incorporate ‘modal’ notions”. Similarly, Jendraschek (2014:151) points out the “modal implications of prospective marking”.¹⁰

Such ‘modal notions’ or ‘modal implications’ can be understood in relation to the differences illustrated in (9)-(12) between futurity and prospectivity; both deal with a nonveridical prediction on the speaker’s part but differ concerning the speaker’s epistemic state. The Dutch and German future tenses are—as argued above—epistemic futures, whereas prospective aspect lacks this strong notion of epistemic necessity. Prospective aspect therefore only has a predictive reading. This fits well with Giannakidou & Mari’s (2018) distinction between ‘objective nonveridicality’ and ‘subjective nonveridicality’. Objective nonveridicality simply means that the situation is not realized at utterance time and that it remains open whether it will be realized in the future or not. Subjective nonveridicality, on the other hand, is about the epistemic state of an individual who at utterance time does not know whether the situation will hold in the future or not. We think the best way to capture this difference is to assume that the Dutch and German futures express epistemic necessity, whereas the prospective constructions in these languages convey alethic possibility (i.e., possible truth). This particular difference between futurity and prospectivity can then be connected to the imminence operator IMM.

The idea that IMM is connected to alethic possibility can be fleshed out further by drawing on the ‘situation-externality’ or ‘dual time reference’ of prospective aspect

⁹ The other Dutch future auxiliary—*gaan* ‘go’—does not get a future reading when used in the perfect. Instead, it gets an ingressive interpretation, which is one of its other uses (cf. Boogaart & Bogaards 2023): *Stegeman is vorige maand personeel gaan ontslaan* ‘Stegeman started firing staff last month’.

¹⁰ The association of futurity with modality goes back even further (cf. the references cited in Anderson 1973). In the Dutch context, this discussion is more recent—see Verkuyl & Broekhuis (2013) and Boogaart (2013) for opposing accounts of the temporal or modal status of the Dutch future auxiliary *zullen* ‘will’.

discussed previously: prospectivity introduces an additional pre-state during which the phase corresponding to the situation does not hold. This state can be expanded to include not just ‘situation not holding’ but an assessment that the realization of the situation is possible. This would be the contribution of IMM. Such a pre-state can also incorporate the intuition of ‘closeness in time’ voiced in much earlier work, by predicating possibility not just of the realization but of the *close-in-time* realization of the situation.

Based on these considerations, we define the IMM operator as in (13a). IMM takes some configuration of phases and boundaries as its input (notated as x in (13a)), and produces a state as its output. Since states are contractible (e.g., Anthonissen et al. 2019:1131), a state can be characterized in its entirety by any punctual sample taken from it, so we employ this property for our definition. As an informal explication of ‘possibility’, we use the phrase ‘if nothing intervenes’, because as we showed in (11) and (12), prospectivity leaves room for intervening factors blocking the situation’s realization. Finally, we put the component ‘close-in-time’ between round brackets to reflect its status as a conventional implicature associated with IMM in Dutch and German. The full definition of prospectivity that IMM is a part of, is repeated in (13b).

- (13) a. $\text{IMM}(x) \leftrightarrow$ a state such that at any point sampled from the state, (close-in-time) realization of x could happen if nothing intervenes
- b. $[\varphi_2] \ \& \ \text{IMM}([\neg\varphi_1 \ \tau \ \varphi_1])$

Our bipartite definition of prospective aspect under (13) mitigates the problems of a “purely aspectual” definition that appeals primarily to some kind of temporal closeness or near future. It is compatible with ‘long time’ modifiers such as *lange tijd* in (8), as these take scope over possibility rather than closeness in time; the state in (13) can in principle last indefinitely so long as the speaker sticks to their assessment. It underspecifies the situation’s realization by committing the speaker to possibility, not necessity, accounting for the difference between prospectivity and futurity shown in (11). And the counterfactual reading produced by perfect marking illustrated in (12) is consistent with presenting ‘possible realization if nothing intervenes’ as a ‘complete whole’ when we consider that a statement along the lines of ‘it could have happened if nothing had intervened’ can only mean that there was indeed an intervening factor blocking the realization.

To sum up: in our view, the imminent component of prospective aspect in (13) is not exclusively a temporal notion but primarily a modal notion of speaker assessment tied to the possibility of close-in-time realization. On the whole, prospectivity is still a type of perspectival aspect in our definition, as (13b) relates two situations—i.e., $[\varphi_2]$ and $\text{IMM}([\neg\varphi_1 \ \tau \ \varphi_1])$ —in terms of their relative temporal positions. Having

presented a working definition of prospective aspect, we are now in the position to compare its linguistic realization in German and Dutch.

3. Prospective constructions in German and Dutch

As mentioned in the introductory section, the Germanic languages make use of periphrastic constructions for the expression of prospective aspect. Dutch and German differ from other Germanic languages like English and Swedish by using a posture verb meaning ‘stand’ as the standard matrix verb of this construction.¹¹ A further similarity between the two languages is that the prospective future event can either be realized by a verbal infinitive or by a nominal element (i.e., nominalized infinitive or noun).

An illustrative minimal pair from German is presented in (14). Both examples indicate that the subject referent is on the verge of exploding. In (14a), the prospective explosion event is denoted by the verbal infinitive *explodieren* ‘explode’, whereas in (14b) it is expressed by the noun *Explosion* ‘explosion’. Following Fleischhauer (2023), we refer to examples like (14a) as a ‘verbal strategy’ of expressing prospective aspect, as the prospective event is denoted by a verbal predicate. Accordingly, examples like in (14b) are referred to as a ‘nominal strategy’ of expressing prospectivity.

- (14) a. Der Planet Krypton *stand* kurz *davor* zu *explodieren*.
‘The planet Krypton is about to explode.’ (A15/NOV.02629 St. Galler Tagblatt, 07.11.2015, S. 17; Tatort: Schwanensee ARD 20.15)
- b. Fast ein Dutzend Flüssiggasbehälter *stand* kurz *vor* der *Explosion*.
‘Almost a dozen liquid gas containers were about to explode.’ (NUZ09/DEZ.02482 Nürnberger Zeitung, 24.12.2009, S. 9; Massiver Brand im „Barockhäusle“ — Gasflaschen kurz vor der Explosion)

In the nominal strategy, the noun denoting the prospective event is realized as the complement of an originally spatial preposition *vor* meaning ‘in front of’. A detailed analysis of the nominal strategy of expressing prospectivity is presented in Fleischhauer & Gamerschlag (2019), Fleischhauer et al. (2019) and Fleischhauer (2023). The verbal strategy realizes the infinitive as a complement of the pronominal adverb *davor* ‘in front of’. Despite the morphosyntactic differences, it is clear that the

¹¹ Lemmens (2002, 2015) suggests for the Dutch prospective constructions that *staan* functions metaphorically in opposition to *lopen* ‘walk’, with *staan* being “the starting position for walking, whence metaphorical extension to all kinds of activities” (2002:113). Such an analysis works for German as well, given that the ‘standing’ position is ‘in front of’ (*davor*) the situation that is yet to begin.

two strategies derive from the same conceptual source: the subject referent is metaphorically situated in front of the prospective future event.¹²

Dutch has at least two constructions with *op het punt* ‘on the point’ expressing prospectivity, illustrated in (15): [*op het punt (om) te* INF] ‘lit. on the point to INF’ in (15a) and [*op het punt van* INF] ‘lit. on the point of INF’ in (15b), both of which combine with a matrix verb *staan* ‘stand’.¹³ Like the German examples, the minimal pair in (15) denotes an imminent explosion of the subject referent.

- (15) a. In Final Destination 1 stopt Alex de dood van Clear door haar te redden uit een auto die *op het punt stond te ontploffen*.
‘In Final Destination 1, Alex prevents Clear’s death by saving her from a car that was about to explode.’ (SoNaR WR-P-P-G-0000203156)
- b. Alf is gevlucht van thuisplaneet Melmak omdat deze *op het punt van ontploffen stond*.
‘Alf fled his home planet of Melmak because it was about to explode.’ (SoNaR WR-P-E-J-0000039536)

In (15a), the explosion event is denoted by a verbal infinitive *ontploffen* ‘explode’ while in (15b) that infinitive is nominalized (Bogaards 2023a). The nominal character of the variable element in [*op het punt van*] is reflected by the fact that nouns can also be used in this construction, e.g., *oorlog* ‘war’ in (16).

- (16) Het was waar dat Irak *op het punt van oorlog stond*, president Bush kon elk moment besluiten het bombardement op Irak te openen, maar er was nog hoop.
‘It was true that Iraq was on the brink of war, President Bush could decide to start bombing Iraq at any moment, but there was still hope.’
(SoNaR WR-P-P-B-0000000203)

Dutch is thus similar to German in having at its disposal a verbal and a nominal strategy for encoding prospectivity, both of which employ a matrix verb meaning ‘stand’.¹⁴ The conceptual source differs from German, although it also draws on

¹² In the examples under (14), the finite verb *stehen* ‘stand’ can be substituted by *sein* ‘be’ without affecting the construction’s interpretation. So far, it is an open question which of the two constructions is more frequent. The same variation with respect to the finite verb used in the prospective construction is encountered in Afrikaans (Wierenga 2022).

¹³ There are two more restricted patterns with *staan* ‘stand’ with prospective interpretations, viz. *staan te gebeuren/beginnen/veranderen* ‘lit. stand to happen/begin/change: be about to happen/begin/change’ and [*op* INF *staan*] ‘lit. stand on INF: be about to INF’ (cf. Boogaart & Bogaards 2023). We limit ourselves here to the more productive patterns with *punt* ‘point’.

¹⁴ There is also a notable parallel in this respect *within* Dutch between the *aan het*-progressive and other aspectual constructions featuring *aan het*: the infinitive in the progressive seems to be verbal, whereas the

location: the Dutch constructions situate the subject referent on a certain ‘point’, which is understood as a temporal interval directly preceding the situation denoted by the variable infinitive (or noun in (16)). So, rather than making the precedence relation explicit as with German *(da)vor* ‘in front of’, Dutch *punt* ‘point’ seems to have conventionalized the semantics of direct precedence.

For our comparison, which makes up the remainder of this paper, we will limit ourselves to the German and Dutch verbal strategies using a verb meaning ‘stand’ for encoding prospective aspect. That is, we will compare German [*davor stehen zu* INF] to Dutch [*op het punt staan (om) te* INF]. This allows us to exclude syntactic factors such as nominalization that might influence the choice of predicate, and to zero in on the semantic restrictions imposed on the infinitival slot.

4. Corpus study

In Section 1, we introduced the CoS-hypothesis, which states that prospective aspect constructions are restricted to change-of-state-denoting expressions. Given our conceptual working definition of prospective aspect outlined in Section 2, which we repeat below in (17), the hypothesis gains some initial plausibility, since part of the aspect’s meaning is a transition from $[\neg\varphi]$ to $[\varphi]$. CoS-predicates lexicalize such transitions as they denote an instantaneous change from, for instance, ‘not sold’ to ‘sold’ as in the case of German *verkaufen* and Dutch *verkopen* ‘sell’. Non-CoS-predicates (i.e., activity and state predicates), on the other hand, do not lexically encode transitions.

$$(17) \quad [\varphi_2] \ \& \ \text{IMM}([\neg\varphi_1 \ \tau \ \varphi_1])$$

The CoS-hypothesis has not yet been tested on the basis of a larger set of corpus data for the verbal strategies of encoding prospective aspect (but see Fleischhauer 2023 for a corpus-based study of the nominal strategy of encoding prospectivity in German). In this section, we present the results of a comparative corpus study on the German and Dutch verbal strategies for prospective aspect. The section is structured as follows: first, we describe our data collection and annotation (§4.1), then we move on to our findings, discussing change-of-state (§4.2), atelic predicates (§4.3), auxiliaries (§4.4) and modifiers (§4.5) in the corpus data.

4.1 Data collection

For the German data, we used the two tagged archives Tagged-C and Tagged-C2 of the German reference corpus (DeReKo; Leibniz-Institut 2021). The search was aided

other (mainly ingressive) constructions are built around a nominalized infinitive (cf. Bogaards et al. 2022; Bogaards 2023b).

by the search engine COSMAS II (Leibniz-Institut 2020) and carried out using the search string shown in (18).

(18) (&stehen/0s,Max (davor/0s,Max (zu/+1:l w,Max #ELEM(ANA='V' ANA='INF'))))

The string in (18) identifies every occurrence of inflected *stehen* together with *davor*, *zu* and an infinitive within the same sentence. The only strict requirement is that *zu* immediately precedes the infinitive. Table 1 lists the hits for the individual archives as well as the total number of hits. In a first step, we cleaned up the data and deleted all examples which occurred more than once in our sample. The cleaned-up data are shown in brackets. For the analysis, we combined the data from the two archives within one single sample.

Table 1. Number of hits for individual archives and total number of hits for the German search string.

Archive	Hits
Tagged-C	408 (397)
Tagged-C2	786 (734)
Total	1,194 (1,131)

For the Dutch construction, we collected data from the SoNaR corpus of contemporary written Dutch (Oostdijk et al. 2013). We used a set of five specific search strings in SoNaR's query language, given under (19).

- (19) a. "op" "het" "punt" [lemma="staan"&pos="WW.pv.*"]
[pos!="LET.*"]{0,9} "te" [pos="WW.inf.*"]
- b. [lemma="staan"&pos="WW.pv.*"] [pos!="LET.*"]{0,6} "op" "het"
"punt" [pos!="LET.*"]{0,9} "te" [pos="WW.inf.*"]
- c. "op" "het" "punt" [lemma="hebben"]
[lemma="staan"&pos="WW.vd.*"] [pos!="LET.*"]{0,8} "te"
[pos="WW.inf.*"]
- d. "op" "het" "punt" [lemma="staan"&pos="WW.vd.*"]
[lemma="hebben"] [pos!="LET.*"]{0,8} "te" [pos="WW.inf.*"]
- e. [lemma="hebben"] [pos!="LET.*"]{0,8} "op" "het" "punt"
[lemma="staan"&pos="WW.vd.*"] [pos!="LET.*"]{0,9} "te"
[pos="WW.inf.*"]

All strings in (19) extract instances of a contiguous sequence *op het punt* in the same sentence as the infinitival marker *te* ‘to’ followed by an infinitive, and a lemma of the verb *staan* in either finite (in 19a-b) or participial form (in 19c-e).¹⁵ Specifying different ordering configurations of *op het punt* and finite *staan* allowed us to distinguish between main and subordinate clauses in the Dutch data from the outset, with (19a) and (19c-d) probing for subordinate clause order (V-final), and (19b) and (19e) for main clause order (V2). This procedure also differentiates between instances of the pattern in simple tense in (19a-b), as opposed to compound (perfect) tense in (19c-e). Table 2 displays the number of hits for each specific query; the total number of hits yielded by this procedure was 3,262.

Table 2. Number of hits for individual queries and total number of hits for the Dutch search string.

Query	Hits
19a	1,365
19b	1,782
19c	37
19d	8
19e	70
Total	3,262

The next step was to clean up the German and Dutch data. For each individual sentence, we checked whether *davor* in German and *op het punt* in Dutch belongs to *stehen/staan*. This was particularly relevant for the German data, as the query in (18) for German is a lot less restrictive than our queries in (19) for Dutch. Indeed, it turned out that almost 20% of all German items featured a token *davor* that does not belong to *stehen*, as opposed to about 2.8% for Dutch. A German example is presented in (20); *davor* belongs to the preceding verb *warnen* ‘warn’ rather than *stehen*. All instances which do not fulfill this criterion do not instantiate the construction under study, and they were therefore filtered out.

- (20) Die Beamten *warnen davor*, offene Getränke unbeaufsichtigt *stehen* zu lassen.
 ‘The officers warn against leaving open drinks unattended.’
 (NUZ10/FEB.02669 Nürnberger Zeitung, 26.02.2010, S. 14; In wenigen Worten)

¹⁵ The element `[pos!="LET.*"]{0,n}` probes for zero to *n* occurrences of any token that is not a punctuation mark, ensuring that the extracted configurations of *op het punt*, finite or participial *staan* and an infinitive were within one sentence.

Table 3. Results of the first annotation step: Does *davor/op het punt* belong to *stehen/staan*?

	Yes	No
German	911	220
Dutch	3,174	88

In a second annotation step, we checked whether the construction has a spatial and therefore literal interpretation or not. This step did not apply to the Dutch data, as the infinitival complement headed by *te* is exclusive to the prospective construction, and hence never occurs in conjunction with literal uses of *op het punt* ‘on the point’. The criterion we used to identify the literal interpretation in the German data is whether the verb can be substituted by some other posture verb (e.g., German *sitzen* ‘sit’ and *liegen* ‘lie’) or by some general location predicate (e.g., *lokalisiert sein* ‘be localized’). A German example illustrating a literal use of the construction is given in (21); *davor* refers anaphorically to a table introduced in the previous sentence.

- (21) Es *stehen* keine Stühle *davor* [...].
 ‘There are no chairs in front of it [a long table] [...].’ (U10/SEP.04168
 Süddeutsche Zeitung, 27.09.2010, S. 9; Papier ist nicht geduldig)

The results of the second annotation step are summarized in Table 4.

Table 4. Results of the second annotation step: Does the construction have a literal interpretation?

	Yes	No
German	81	830
Dutch	0	3,174

The total number of prospective constructions exceeds the total number of sentences in German, since some sentences combine several predicates within a single prospective construction. This does not apply to our Dutch data since the queries under (19) are specified for only one instance of each token within a single sentence. For German, we counted each predicate separately, which resulted in a total of 854 German tokens. In order to get an equal number of German and Dutch tokens for our comparison, we then took a random sample of 854 sentences from the Dutch data. Table 5 lists the tokens for the German data and the Dutch sample, as well as the number of types, type-token-ratio (TTR) and number of hapax legomena (hapaxes).

Table 5. General corpus measures.

	German	Dutch
Tokens	854	854
Types	381	375
TTR	44.6%	44%
Hapaxes	253	244

As the numbers in Table 5 indicate, the Dutch and German constructions are highly similar with respect to their number of types and hapaxes. Adopting Baayen's (1992) notion of 'potential productivity' as represented by the number of hapaxes divided by the number of tokens, this suggests that the two constructions are of similar syntactic productivity in their respective languages.¹⁶

Table 6 shows the top ten predicates embedded in the prospective construction from the corpus data. In both languages, a predicate meaning 'become' is on top of the list. Nonetheless, there is some variation between the two languages. Besides 'become', only 'leave' and 'lose' occur in the top ten of the two languages. However, verbs like *machen* 'make' (10), *schließen* 'close' (7) and *beginnen* 'begin' (6) — which are in the Dutch top ten — are among the top 30 in German.

Table 6. Top ten most frequent types of infinitives in the corpus data.

	German		Dutch	
	infinitive	tokens	infinitive	tokens
1	<i>werden</i> 'become'	71 (8.3%)	<i>worden</i> 'become'	40 (4.7%)
2	<i>übernehmen</i> 'take over'	39 (4.6%)	<i>vertrekken</i> 'leave'	33 (3.9%)
3	<i>verlieren</i> 'lose'	29 (3.4%)	<i>gaan</i> 'go'	32 (3.7%)
4	<i>erreichen</i> 'reach'	20 (2.3%)	<i>trouwen</i> 'marry'	17 (2%)
5	<i>verkaufen</i> 'sell'	17 (2%)	<i>beginnen</i> 'begin'	15 (1.8%)
6	<i>bekommen</i> 'get'	16 (1.9%)	<i>doen</i> 'do'	14 (1.6%)
7	<i>gewinnen</i> 'win'	13 (1.5%)	<i>maken</i> 'make'	12 (1.4%)
8	<i>verlassen</i> 'leave'	11 (1.3%)	<i>nemen</i> 'take'	12 (1.4%)
9	<i>vergießen</i> 'spill'	11 (1.3%)	<i>sluiten</i> 'close'	12 (1.4%)
10	<i>kaufen</i> 'buy'	10 (1.2%)	<i>verliezen</i> 'lose'	12 (1.4%)
	[remaining 371 types]	617 (72.2%)	[remaining 365 types]	655 (76.7%)

¹⁶ See Barðdal (2006) for the application of 'potential productivity' to syntactic constructions, as we are doing here.

One reviewer suggested that the differences in the top ten verbs in German and Dutch might be related to a possible higher number of economic and financial texts in the German DeReKo. Although this might be a reasonable suggestion, it cannot easily be validated. However, the following sections will show that while there are differences in the individual verbs, the two languages show very similar restrictions when it comes to the semantic type of verb.

4.2 *Change-of-state and telicity*

Having identified the individual predicate types licensed by the prospective constructions, we went on to classify the predicates by their semantic type. We started by distinguishing telic from atelic predicates. Telicity as a property of predicates is usually subsumed under the notion of *Aktionsart* or lexical aspect (e.g., Vendler 1967; Smith 1997). Telic predicates encode the attainment of some result state in their meaning. A predicate can either be lexically telic (e.g., German *explodieren*) or compositionally telic at the level of VP (termed ‘aspectual composition’ by Verkuyl 1972). An example is German *ziehen* ‘pull’ which heads a telic complex predicate only if its PP-complement denotes a goal. In (22a), for example, the PP *zum Haus* ‘to the house’ is interpreted as the goal of the pulling motion, with the time-span adverbial *in drei Minuten* ‘in three minutes’ measuring out how long it takes the dog to pull the branch to the house. By contrast, the same PP receives a directional interpretation—‘towards the house’—in (22b), giving rise to an atelic reading in which the durative adverbial *drei Minuten lang* ‘for three minutes’ simply measures the time the dog is engaged in the pulling activity.

- (22) a. Der Hund zog den Ast *in drei Minuten* zum Haus.
‘The dog pulled the branch in three minutes to the house.’
b. Der Hund zog den Ast *drei Minuten lang* zum Haus.
‘The dog pulled the branch for three minutes towards the house.’

Our discussion of the examples in (22) already illustrates one standard criterion for distinguishing telic from atelic predicates: telic predicates combine with time-span adverbials, atelic predicates with durative adverbials (e.g., Dowty 1979). The examples under (22) also indicate that the aspectual interpretation sometimes depends on arguments and adjuncts within the VP, since a given verb can be aspectually underspecified. As a consequence, we based our aspectual classification not only on the infinitive, but examined the entire complex predicate as used in its sentential context.

We counted predicates as telic if they combine readily with time-span adverbials such as German *in drei Minuten* ‘in three minutes’ in (22) and Dutch *binnen een halfuur* ‘in half an hour’ in (23); if not, we classified them as atelic. According to this

test, Dutch *vertrekken* ‘depart’ from (23a) is telic given (23b), and *acteren* ‘act’ from (23c) is atelic given (23d) (cf. Haeseryn et al. 1997:1676-1677 for a discussion of the *binnen*-test in Dutch as applied here).

- (23) a. Het liep fout toen de airbus gisteren *op het punt stond om* naar Tadzikistan *te vertrekken*.
 ‘It went wrong when the airbus was about to depart for Tajikistan yesterday.’ (SoNaR WS-U-E-A-0000144559)
- b. De airbus vertrok *binnen een halfuur*.
 ‘The airbus departed in half an hour.’
- c. Hij verspreidt geruchten dat er onenigheid in de band bestaat en dat *hij op het punt staat te gaan acteren* in een grote film.
 ‘He spreads rumors that there are disagreements in the band and that he is about to start acting in a major movie.’ (SoNaR WR-P-E-J-0000123983)
- d. Hij acteerde in een grote film *#binnen een halfuur*.
 ‘He acted in a major movie #in half an hour.’

For our analysis, we equated CoS-predicates with telic predicates, although this might be too restrictive. We had two reasons for doing this. First, as far as we know, there exists no criterion for distinguishing any and all CoS-predicates from non-CoS-predicates. Second, although some CoS-predicates show variable telicity (Dowty’s 1979:88ff. so-called ‘degree achievement’-predicates), they always allow for a telic reading. Degree achievements were therefore always classified as CoS-predicates in our annotation, whereas directed motion verbs like *ziehen* ‘pull’ depend on the type of PP. They were classified as telic if the PP indicates a goal, whereas directional interpretations were classified as atelic, i.e., as non-CoS-predicates.

This procedure gave us three annotation categories: ‘telic’, ‘atelic’ and ‘unclear’. We used ‘unclear’ for cases where we were not able to establish (a)telicity on the basis of the test criteria. The results are summarized in Table 7.

Table 7. Results of the annotation of the predicate types concerning telicity.

	German	Dutch
Telic	300 (78.7%)	292 (77.9%)
Atelic	59 (15.5%)	70 (18.7%)
Unclear	22 (5.8%)	13 (3.5%)

As Table 7 indicates, the numbers in the two languages are again very similar. There exists a clear preference for telic predicates, i.e., CoS-predicates, to occur in the

prospective constructions. However, the preference for telic predicates is just that: a preference, not a categorical restriction, seeing as more than 15% (German) and 18% (Dutch) atelic predicates are attested in the constructions as well. Similar data are reported for the German nominal strategy by Fleischhauer (2023): 80% of the nouns embedded in the construction denote a change-of-state, 20% do not. On the basis of these data, the strong version of the CoS-hypothesis—stating that all predicates must lexically encode a change-of-state—has to be rejected; the German and Dutch prospective constructions do not impose such a restriction.

4.3 Activities and States

Atelic predicates subdivide into two different Aktionsart classes: state and activity predicates. One test for distinguishing state predicates from activity predicates is the so-called ‘*happen*-test’: activity predicates can be anaphorically picked up by a verb meaning ‘happen’, whereas state predicates cannot (cf. Maienborn 2003; Nicolay 2007; Fleischhauer 2016). Examples from German are shown in (24). This test indicates that *spielen* ‘play’ is an activity predicate but *stehen* ‘stand’ is not.

- (24) a. Shirin spielte Klavier. Das *geschah/passierte* während...
 ‘Shirin was playing the piano. This happened while...’
 b. Heidi stand am Fenster. #Das *geschah/passierte* während...
 ‘Heidi was standing at the window. This happened while...’
 (Maienborn 2003:59)

According to this test, German and Dutch license both activity and state predicates in the prospective construction, although activity predicates exceed the state ones in number. Table 8 summarizes the numbers for the two languages.

Table 8. Number of activity and state predicates among the atelic predicate types.

	German	Dutch
Activities	50 (84.8%)	63 (90%)
States	9 (15.2%)	7 (10%)

The examples under (25) illustrate the occurrence of activity predicates in the prospective constructions. A Dutch example is presented in (25a), a German one in (25b). The Dutch example contains the activity predicate *omhelzen* ‘hug’, the German one contains *spielen* ‘play’, which was already identified as an activity predicate in (24a). In both cases, the sentence construes the prospective onset of the activity in question.

- (25) a. Ze keek alsof ze *op het punt stond hem te omhelzen*; hij ontweek haar door zijn tas te pakken en de riem over zijn schouder te hangen.
'She looked as though she was about to hug him; he avoided her by grabbing his bag and hanging the belt over his shoulder.' (SoNaR WR-P-P-B-0000000179)
- b. Man sieht ja, wie knapp wir *davor standen*, in der Europa League *zu spielen*.
'As you can see, we on the verge of playing in the Europa league.' (M12/MAI.01243 Mannheimer Morgen, 04.05.2012, S. 10; Berlin nicht Thema Nr. 1)

In (26), two examples of state predicates used in the prospective construction are shown; a German example in (26a) and a Dutch one in (26b). In both cases, the subject referent is described as being close to the state denoted by the predicate. The state—'being complete' in (26a) and 'to understand' in (b)—does not hold of the subject referent at reference time.

- (26) a. Die lange angekündigte Sitzgruppe *stehe kurz davor, fertig zu sein* [...].
'The long-promised table set is about to be complete [...].'
(RHZ14/FEB.23887 Rhein-Zeitung, 24.02.2014, S. 15; Ausblick auf Rheinbogen sichergestellt)
- b. Voor ik aan deze tocht begon, had ik het gevoel dat ik *op het punt stond het complex van schuld en schuldgevoelens te begrijpen* [...].
'Before starting this journey, I felt like I was about to understand the complex of guilt and feelings of guilt.' (SoNaR WR-P-P-B-0000000161)

Since the state does not hold of the subject referent at reference time, the prospective realization of the state presupposes a change-of-state. However, does this mean that the state predicates are coerced into a change-of-state interpretation? Is *fertig sein* 'be complete' in (26a) coerced into a predicate meaning 'become complete', and *begrijpen* 'understand' in (26b), coerced into a predicate meaning 'become understanding'? The same question can be asked for the activity predicates in (25): are they coerced into a change-of-state interpretation? If the answer to all these questions is yes, the weaker version of the CoS-hypothesis could be maintained, since the construction would require coercion of non-CoS-predicates into CoS-predicates (e.g., Asher 2011; for a detailed discussion, see Fleischhauer 2023). But if the answer is no, the weaker version of the CoS-hypothesis has to be rejected as well.

In Section 2, we proposed an analysis of prospective aspect which includes a transition from $\neg\varphi$ to φ —i.e., $[\neg\varphi \ \tau \ \varphi]$ —with φ corresponding to any situation type.

In the case of state predicates, φ represents a state and the meaning of the construction already entails a possible transition, namely a change from ‘state does not hold’ to ‘state holds’. So, under this analysis, we get the change-of-state interpretation for free as part of the constructions’ meaning, without needing to coerce the state into a derived change-of-state interpretation. The same is true of activity predicates embedded in these constructions; the transition encoded by the prospective construction itself allows for understanding the change-of-state simply as the onset of the activity.

To summarize: the results of the corpus study suggest that the strong version of the CoS-hypothesis is false. Furthermore, we also reject the weaker version of the CoS-hypothesis on the basis of our discussion of the language data in this section. However, there is a clear preference for CoS-predicates in the prospective constructions, in German as well as in Dutch (both ~78%), which requires an explanation. A reasonable suggestion might be that prospective aspect constructions start out with a categorical restriction for CoS-predicates and progressively loosen this restriction in the course of their grammaticalization. This is a diachronic claim that we cannot yet support with actual historical language data. Evaluating this diachronic hypothesis is a task for future research.¹⁷

In Section 3, we mentioned the differences in the morphosyntactic makeup of the prospective constructions in the two languages under investigation. Section 4.2 revealed that the constructions in the two languages are similar in having a clear preference for telic predicates. In the following two subsections, we will discuss two differences between the prospective constructions in German and Dutch that emerged in the course of the corpus study: the two languages show differences in the type of auxiliaries found in the construction, and they vary with respect to the use of ‘close-in-time’ modifiers.

4.4 Auxiliaries

Table 9 provides an overview of all auxiliaries embedded in the German and Dutch prospective constructions in our data.

¹⁷ One synchronic observation suggesting that we might be on the right track here, relates to the Dutch ‘nominal strategy’ for expressing prospective aspect mentioned in Section 3, i.e., [*op het punt van* INF *staan*] ‘lit. stand on the point of INF’. Bogaards (2023a) points out that this construction is much stricter with respect to the CoS-requirement than the verbal strategy. The activity and state predicates from (25)-(26), for example, are categorically out: **ze stond op het punt van (hem) omhelzen* and **ik stond op het punt van (het) begrijpen* (compare also example (4) with the activity verb *zwemmen* ‘swim’ in Section 1).

Table 9. Auxiliaries types in the prospective constructions.

	German	Dutch
Passive	37	57
Modal	25	---
Ingressive	---	18
Egressive	---	1
Causative	---	4

With respect to auxiliaries, we observe that both languages license passive auxiliaries, namely *werden* ‘become’, *sein* ‘be’ and *bekommen* ‘get’ in German,¹⁸ and *worden* ‘become’ in Dutch. But the two languages differ with respect to two other types of auxiliaries. Modal auxiliaries—*können* ‘can’, *müssen* ‘must’ and *dürfen* ‘may’—occur in the German examples, but they are absent from the Dutch data. It seems that this absence in the Dutch corpus is tied to low frequency rather than unacceptability, as these combinations can be found elsewhere, see (27) for an example. Still, it is striking that the use of modal auxiliaries seems to be considerably more frequent in German.

- (27) Het reservaat verricht ongelooflijk belangrijk werk voor het redden en beschermen van orang-oetans, maar *staat* nu helaas *op het punt om te moeten sluiten* vanwege geldgebrek, [...].
 ‘The reserve does unbelievably important work for the rescue and protection of orangutans, but unfortunately it is on the brink of having to close down right now due to lack of money, [...].’ (<https://www.ze.nl/artikel/225135-000h-watmo000i>)

Dutch, on the other hand, licenses *gaan* ‘go’ as an ingressive auxiliary (Boogaart & Bogaards 2023). No similar ingressive auxiliaries are found in the German prospective construction. Two further types of auxiliaries encountered in the Dutch data but not in the German ones are egressive (Dutch *stoppen* ‘stop’) and causative auxiliaries (Dutch *laten* ‘let’). The absence of certain types of auxiliaries from the data—especially the causative auxiliary in German—might be an artefact of the corpus data.

The occurrence of the ingressive auxiliary in Dutch is interesting as it is clearly associated with atelic predicates, as shown in Table 10. Sentence (28) illustrates this combination with the atelic activity predicate *dansen* ‘dance’.

¹⁸ *Werden* ‘become’ functions as an auxiliary in an event passive (German *Vorgangspassiv*), *sein* ‘be’ is used in the *Zustandspassiv* ‘state passive’ and *bekommen* ‘get’ is used as an auxiliary in the so-called recipient passive (*Rezipientenpassiv*).

- (28) [...], alsof hij *op het punt stond* op de klanken van sabbatpsalmen *te gaan dansen*.
 ‘[...] as if he was about to start dancing to the sounds of sabbath psalms.’
 (SoNaR WR-P-P-B-0000000181)

Table 10. Distribution of ingressive auxiliaries over (a)telic predicates in Dutch.

	Atelic predicates	Telic predicates
Ingressive auxiliary	15	3
No ingressive auxiliary	79	731

Although the association between the presence of an ingressive auxiliary and atelicity is significant ($\chi^2=87.56$, $df=1$, $p<0.001$), with moderate effect size (Cramer's $V=0.33$), ingressive marking on atelic VPs forms only ~16% of atelic cases. This observation aligns with our earlier claim that the preference for telic predicates is a tendency rather than a restriction, when we consider the following. The ingressive auxiliary contributes an aspectual viewpoint of the type $[\neg\phi \tau \phi]$ (Bogaards 2022; cf. Section 2), which maps one-to-one to the transitional component of prospective aspect. If activity predicates were always paired with the ingressive viewpoint in the Dutch data, then the conclusion would have to be that this combination somehow ‘prepared’ them for taking the prospective viewpoint. In other words, the input for the prospective construction would somehow already need to involve the change-of-state or ingressive configuration $[\neg\phi \tau \phi]$. The fact that this is not the case for the majority of the atelic predicates in Table 10, while at the same time showing a significant association between ingressivity and atelicity, suggests to us that the observed ingressive marking is driven by the construction’s preference (but not restriction) for CoS-predicates.

4.5 Close-in-time modifiers

In Section 2, we argued that ‘closeness in time’ is not a semantic component of but rather a conventional implicature associated with prospective aspect in Dutch and German. To support this analysis, we presented data from Dutch featuring the temporal modifier *een lange tijd* ‘a long time’, indicating that the temporal distance between the subject referent’s current state and the onset of the prospective event is not ‘close’. We also mentioned that we do not have similar examples in our sampled German data. This relates to the second difference between the German and Dutch prospective constructions. German has a strong preference for what we call ‘close-in-time modifiers’. These are modifiers like German *kurz* ‘short’ which qualify the time span between the subject referent’s current state and the onset of the prospective

situation as short, i.e., construes the two as ‘close in time’. As Table 11 shows, the two languages differ strongly in this respect, as German strongly prefers having such modifiers while Dutch does not.¹⁹

Table 11. Number of close-in-time modifiers per sentence.

	German	Dutch
Close-in-time modifiers	764 (92.4%)	9 (1.1%)
No close-in-time modifiers	66 (7.6%)	845 (98.9%)

The only modifier that we could classify as a marker of ‘closeness in time’ in the Dutch data was the adverb *net* ‘just’; the equivalents of frequent German adverbial modifiers like *kurz* (which would be *kort* ‘short’ or *dichtbij* ‘close’) are in fact not compatible with the Dutch construction. As the list of German close-in-time modifiers in Table 12 reveals, most of them start out with a spatial meaning—like the prospective construction itself—and are metaphorically interpreted following the SPACE IS TIME metaphor (e.g., Haspelmath 1997). One clear exception is *Sekunde* ‘second’, which designates a temporal interval.

Table 12. List of German close-in-time modifiers.

Modifier	Absolute numbers	Modifier	Absolute numbers
<i>dicht</i> ‘close’	7	<i>Millimeter</i> ‘millimeter’	1
<i>Schritt</i> ‘step’	2	<i>nahe</i> ‘near, close’	3
<i>knapp</i> ‘narrow(ly)’	5	<i>Sekunden</i> ‘seconds’	1
<i>kurz</i> ‘short’	716	<i>unmittelbar</i> ‘immediately’	28
<i>Zentimeter</i> ‘centimeter’	1		

The strong preference for close-in-time modifiers in German supports our analysis that ‘closeness in time’ is not a necessary meaning component of prospective aspect,

¹⁹ As we mentioned in Section 4.1, our German data collection yielded sentences with more than one token of the prospective construction. Because of this, in the German data, we calculated the number of modifiers in relation to sentence number, not in relation to the predicate tokens. The reason for this is that such modifiers scope over the conjoined predicates. Counting the number per predicate would therefore distort the data.

given that the German construction has a tendency to mark this component separately with an explicit modifier. On the other hand, Dutch shows the reverse picture: closeness in time is basically never marked separately. We see at least two ways to account for this difference.

One explanation is that the German and Dutch constructions vary with regard to the status of the ‘closeness in time’ component. If we follow this line of thinking, ‘closeness in time’ is not a main component of the prospective aspect in German, since it is marked with a separate modifier, but it would belong to the core meaning of the Dutch prospective construction. This conclusion is problematic, however, considering that we showed the Dutch construction to be compatible with modifiers like *lange tijd* ‘for a long time’ (cf. example (8) in Section 2).

A second, alternative explanation, which avoids this problem, has to do with the nature of the spatial metaphor: *davor* ‘in front of’ in German, as opposed to *op het punt* ‘on the point’ in Dutch. German *davor* positions the subject referent and the prospective situation relative to each other such that the former is facing the latter. Conversely, in Dutch, the prospective situation is equated metaphorically to the very ‘point’ that the subject referent is standing on. The two metaphorical mappings, while both spatial, thus differ crucially in positioning subject and situation in two different ‘locations’ (*davor*) or the same ‘location’ (*op het punt*). We suggest that the compatibility of spatial modifiers like *kurz* with a given prospective construction is dependent on the first type of spatial metaphorical mapping, where subject and situation are not in the same metaphorical location. On this account, we can maintain the claim that closeness in time is a conventional implicature tied to prospective aspect; marking this implicature with a spatial ‘close-in-time modifier’ is then only possible if it is allowed by the specific type of spatial metaphorical mapping that the prospective construction developed from.

5. Conclusion

In this paper, we developed a working definition of prospective aspect on the basis of Dutch and German language data. According to our conceptual definition, prospective aspect focuses on a state $[\varphi_2]$ preceding a transition $\text{IMM}([\neg\varphi_1 \tau \varphi_1])$, where φ_2 constitutes the (negated) pre-state of φ_1 . The transition is embedded under an imminence operator IMM which we explicated in primarily modal terms as ‘could realize if nothing intervenes’, with a conventional implicature of ‘closeness in time’.

In a corpus study, we then compared the German and Dutch verbal strategies for expressing prospective aspect. Based on differences in grammaticalization between German and Dutch in other aspectual domains (mainly the ‘*am*-Progressiv’ and ‘*aan het*-progressief’), we expected variation, but the constructions turned out to be remarkably similar in distribution, with basically equivalent TTR, hapaxes, and

selection of (a)telic predicates. There were some minor differences. For instance, German employs the relational spatial element *davor* which locates a state ‘in front of’ the prospective situation. Dutch, on the other hand, uses *op het punt*, which locates the pre-state ‘on the same point’ of the prospective situation. This difference seems to be directly reflected in the different frequencies of close-in-time modifiers in the two languages, such as German *kurz* ‘short’.

The central aim of the corpus study was to evaluate the CoS-hypothesis, which states that predicates embedded within prospective constructions must be CoS-denoting (strong version) or coerced into being so (weak version). We argued that, despite some initial plausibility, neither the strong nor the weak version of the hypothesis holds true for the verbal strategies of expressing prospective aspect in German and Dutch. However, our results do indicate a strong preference for CoS-predicates in the constructions. Both of these findings are in line with the results of a similar study on the prospective *stehen vor* NP-construction reported in Fleischhauer (2023). Within the (synchronic) scope of the present paper, we were unable to come up with a conclusive explanation for this preference, but we suggest that it might be rooted in its diachronic origin and development. Further diachronic research could track the development of prospective constructions in historical data with the aim of establishing whether there is indeed a change from a strict CoS-restriction to a looser CoS-preference.

References

- Anderson, John. 1973. *An essay concerning aspect*. The Hague: Mouton.
- Anthonissen, Lynn, Astrid De Wit & Tanja Mortelmans. 2019. (Inter)subjective uses of the Dutch progressive constructions. *Linguistics* 57, 1111-1159.
- Asher, Nicholas. 2011. *Lexical meaning in context*. Cambridge: Cambridge University Press.
- Baayen, Harald. 1992. Quantitative Aspects of Morphological Productivity. In G. Booij & J. van Marle (eds.), *Yearbook of Morphology 1991*. Dordrecht: Kluwer, 109-149.
- Barðdal, Jóhanna. 2006. Predicting the productivity of argument structure constructions. *Proceedings of the Berkeley Linguistic Society* 32, 467-478.
- Bary, Corien. 2009. The perfective/imperfective distinction: Coercion or aspectual operators? In L. Hogeweg, H. de Hoop & A. Malkuchov (eds.), *Cross-linguistic Semantics of Tense, Aspect, and Modality*. Amsterdam: John Benjamins, 33-54.
- Behrens, Bergljot, Monique Flecken & Mary Carroll. 2013. Progressive attraction: On the use and grammaticalization of progressive aspect in Dutch, Norwegian and German. *Journal of Germanic Linguistics* 25, 95-136.
- Bickel, Balthasar. 1996. *Aspect, mood and time in Belhare*. Zürich: ASAS.
- Bickel, Balthasar. 1997. Aspectual scope and the difference between logical and semantic representation. *Lingua* 102, 115-131.

- Binnick, Robert (ed.). 2012. *The Oxford Handbook of Tense and Aspect*. Oxford: Oxford University Press.
- Blensienius, Kristian. 2015. Progressive constructions in Swedish. Göteborg: Göteborgs Universitet dissertation.
- Bogaards, Maarten. 2022. The discovery of aspect: A heuristic parallel corpus study of ingressive, continuative and resumptive viewpoint aspect. *Languages* 7, 158. <https://doi.org/10.3390/languages7030158>
- Bogaards, Maarten. 2023a. Prospectief aspect in het Nederlands: Over *op het punt staan* en gerelateerde constructies. *Nederlandse Taalkunde* 28(2), 104-116.
- Bogaards, Maarten. 2023b. Top-down versus bottom-up approaches to aspect: The case of the Dutch prepositional progressive. *Journal of Germanic Linguistics* 35(4).
- Bogaards, Maarten, Ronny Boogaart & Sjef Barbiers. 2022. The syntax of progressive and ingressive *aanhet*-constructions in Dutch. In J. Vogels & S. Leufkens (eds.), *Linguistics in the Netherlands 2022*. Amsterdam: John Benjamins, 2-21.
- Boogaart, Ronny. 2013. De modaliteit van temporaliteit. *Nederlandse Taalkunde* 18. 324-338.
- Boogaart, Ronny & Maarten Bogaards. 2023. Aspect. In M. Beliën (ed.), *Algemene Nederlandse Spraakkunst (e-ANS)*, 3rd revised edn. Leiden: INT. <https://e-ans.ivdnt.org>
- Broekhuis, Hans & Henk Verkuyl. 2014. Binary tense and modality. *Natural Language and Linguistic Theory* 32, 973-1009.
- Collins, James. 2014. *Be about to* and the proximal future. Paper presented at CUSP-7 (California Universities Semantics and Pragmatics), 7 November 2014, University of California. <https://www.linguisticsociety.org/abstract/be-about-and-proximal-future>
- Comrie, Bernard. 1976. *Aspect: An introduction to the study of verbal aspect and related problems*. Cambridge: Cambridge University Press.
- Dahl Östen & Viveka Velupillai. 2013. The Perfect. In: M. Dryer & M. Haspelmath (eds.), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. <http://wals.info/chapter/68>
- Davari, Shadi & Mehrdad Naghzhguy-Kohan. 2017. The grammaticalization of progressive aspect in Persian. In K. Hengeveld, H. Narrog & H. Olbertz (eds.), *The grammaticalization of tense, aspect, modality and evidentiality*. Berlin: Mouton de Gruyter, 163-190.
- Declerck, Renaat, Susan Reed & Bert Capelle. 2006. *The grammar of the English verb phrase, Vol. 1*. Berlin: Mouton de Gruyter.
- Dickey, Stephen. 1997. Parameters of Slavic Aspect. Bloomington, Indiana: Indiana University dissertation.
- Dik, Simon. 1997. *The Theory of Functional Grammar. Part 1: The structure of the clause*. 2nd revised edn. Berlin: Mouton de Gruyter.
- Dowty, David. 1979. *Word meaning and Montague grammar*. Dordrecht: Reidel.
- Ebert, Karen. 2000. Progressive markers in Germanic languages. In Ö. Dahl (ed.), *Tense and Aspect in the Languages of Europe*. Berlin: Mouton de Gruyter, 605-654.

- Fleischhauer, Jens. 2016. *Degree gradation of verbs*. Düsseldorf: Düsseldorf University Press.
- Fleischhauer, Jens. 2023. Prospective aspect and current relevance: A case study of the German prospective *stehen-vor* NP construction. *Journal of Germanic Linguistics* 35(4).
- Fleischhauer, Jens & Thomas Gamerschlag. 2019. Deriving the meaning of light verb constructions—a frame account of German *stehen* ‘stand’. In B. Hampe & S. Flach (eds.), *Yearbook of the German Cognitive Linguistics Association 7*. Berlin: Mouton de Gruyter, 137-156.
- Fleischhauer, Jens, Thomas Gamerschlag, Laura Kallmeyer & Simon Petitjean. 2019. Towards a compositional analysis of German light verb constructions (LVCs) combining Lexicalized Tree Adjoining Grammar (LTAG) with frame semantics. In S. Dobnik, S. Chatzikyriadiakis & V. Demberg (eds.), *Proceedings of the 13th International Conference on Computational Semantics—Long Papers*. Gothenburg: Association for Computational Linguistics, 79-90.
- Forsyth, James. 1970. *A grammar of aspect*. Cambridge: Cambridge University Press.
- Giannakidou, Anastasia. 1999. Affective Dependencies. *Linguistics and Philosophy* 22, 367-421.
- Giannakidou, Anastasia. 2014. The futurity of the present and the modality of the future: A commentary on Broekhuis and Verkuyl. *Natural Language and Linguistic Theory* 32, 1011–1032.
- Giannakidou, Anastasia & Alda Mari. 2018. A unified analysis of the future as epistemic modality. The view from Greek and Italian. *Natural Language & Linguistic Theory* 36, 85-129.
- Giannakidou, Anastasia & Frans Zwarts. 1999. Aspectual properties of temporal connectives. In A. Mozer (ed.), *Greek Linguistics: Proceedings of the 3rd International Conference on Greek Linguistics*. Athens: Ellinika Grammata, 104-113.
- Gunnink, Hilde. 2018. A grammar of Fwe. Ghent: Ghent University dissertation.
- Gvozdanović, Jadranka. 2012. Perfective and imperfective aspect. In Binnick (2012), 781-802.
- Haspelmath, Martin. 1997. *From space to time: Temporal adverbials in the world's languages*. Munich: Lincom Europa.
- Heine, Bernd. 1994. On the genesis of aspect in African languages: The proximative. *Proceedings of the 20th Annual Meeting of the Berkeley Linguistics Society*, 35-46.
- Hill, Angelica. To appear. What about *about to*? A proposal for proximate future reference. *Proceedings of the 41st West Coast Conference on Formal Linguistics*.
- König, Christa. 1993. *Aspekt im Maa*. Cologne: Institut für Afrikanistik.
- König, Christa. 2000. Der Proximativ. Neu und verwirrend? In W. Breu (ed.), *Probleme der Interaktion von Lexik und Aspekt*. Tübingen: Niemeyer, 141-158.
- Koss, Tom, Astrid De Wit & Johan van den Auwera. 2022. The aspectual meaning of non-aspectual constructions. *Languages* 7, 143.
<https://doi.org/10.3390/languages7020143>

- Kuteva, Tania. 2001. *Auxiliation*. Oxford: Oxford University Press.
- Leibniz-Institut. 2020. *COSMAS II (Corpus Search, Management and Analysis System)*. Mannheim: Leibniz-Institut für Deutsche Sprache.
- Leibniz-Institut. 2021. *Deutsches Referenzkorpus / Archiv der Korpora geschriebener Gegenwartssprache 2021-I (Release vom 02.02.2021)*. Mannheim: Leibniz-Institut für Deutsche Sprache.
- Lemmens, Maarten. 2002. The semantic network of Dutch posture verbs. In J. Newman (ed.), *The linguistics of sitting, standing and lying*. Amsterdam: John Benjamins, 103-140.
- Lemmens, Maarten. 2015. Zit je te denken of ben je aan het piekeren? Persistentie in het synchrone gebruik van de PREP- en POS-progressiefconstructies in het Nederlands. *Nederlandse Taalkunde* 20, 5-36.
- Maienborn, Claudia. 2003. *Die logische Form von Kopula-Sätzen*. Berlin: Akademie-Verlag.
- Michaelis, Laura. 2004. Type shifting in construction grammar: An integrated approach to aspectual coercion. *Cognitive Linguistics* 15, 1-67.
- Nicolay, Nathalie. 2007. *Aktionsarten im Deutschen*. Tübingen: Niemeyer.
- Oostdijk, Nelleke, Martin Reynaert, Véronique Hoste & Ineke Schuurman. 2013. The construction of a 500-million-word reference corpus of contemporary written Dutch. In P. Spyns & J. Oostdijk (eds.), *Essential Speech and Language Technology for Dutch: Results by the STEVIN-programme*. Dordrecht: Springer, 219-247.
- Ritz, Marie-Eve. 2012. Perfect tense and aspect. In Binnick (2012). 881-907.
- Romaine, Suzanne. 1999. The grammaticalization of the proximative in Tok Pisin. *Language* 75, 322-334.
- Smith, Carlota. 1997. *The parameter of aspect*. 2nd revised edn. Dordrecht: Springer.
- Swart, Henriëtte de. 1998. Aspect shift and coercion. *Natural Language and Linguistic Theory* 16, 347-385.
- Van Pottelberge, Jeroen. 2007. Defining grammatical constructions as a linguistic sign: The case of periphrastic progressives in the Germanic languages. *Folia Linguistica* 41, 99-134.
- Van Rompaey, Tinne, Kristin Davidse & Peter Petré. 2015. Lexicalization and grammaticalization: The case of verbo-nominal expressions *be on the/one's way/road*. *Functions of Language* 22, 232-263.
- Verkuyl, Henk. 1972. *On the compositional nature of the aspects*. Dordrecht: Reidel.
- Verkuyl, Henk & Hans Broekhuis. 2013. Temporaliteit en modaliteit. *Nederlandse Taalkunde* 18, 306-323.
- Wierenga, Roné. 2022. Inchoatiewe niehoofdwerkwoordkonstruksies in Afrikaans: 'n Korpusonderzoek. MA thesis, Noordwes-Universiteit, Potchefstroom, South Africa.
- Wierenga, Roné & Adri Breed. Submitted. Inchoativity: A theoretical description for inchoative auxiliary verb constructions in Afrikaans.
- Zifonun, Gisela, Ludger Hoffmann & Bruno Strecker. 1997. *Grammatik der deutschen Sprache Band 3*. Berlin/New York: Walter de Gruyter.

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Funding information

The first author gratefully acknowledges funding from the Dutch Science Council (NWO), grant number PGW.20.013. The second author received funding from the German Science Foundation (DFG), grant number HE 8721/1-1, which is gratefully acknowledged.

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