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Ambiguity in Critical Contexts:
The Lexical Split of the German Modal *dürfte*

The present-day German modal verb *dürfen* ('to be allowed to do sth') is currently undergoing a lexical split in its grammaticalisation. In the subjunctive II, *dürfte*, it is developing into an epistemic marker of phoric non-factuality used to express a speaker-based judgment of the probability of a given proposition (Politt 2022). Epistemic *dürfte* thus grammaticalises into the grammatical category mood, whereas its non-epistemic form remains part of a lexical class of modals. While *dürfte* is known to have progressed quite far on its grammaticalisation path, somewhere between stage 3 and 4, it still shows remnants of grammaticalisation stage 2 (Lehmann 2002, Diewald 2009). The present paper analyses 92 ambiguous sentences of *dürfte* taken from the DWDS core corpus of the 20ᵗʰ century (Geyken 2007). These sentences are assumed to exhibit critical contexts, which are remnants of grammaticalisation stage 2 (cf. Diewald 2009). They can be interpreted both as epistemic or as non-epistemic. Since the epistemic reading of *dürfte* is assumed to have developed into the default interpretation for the subjunctive II (Mortelmans 2019, Politt 2022), the ambiguous sentences are analysed in regard to their similarity to typical contexts for epistemic *dürfte* for three classes of features: (i) features of the subject, (ii) of the verbal complement, and (iii) the sentence context. On the one hand, variation can be found in all three feature classes, indicating that the grammaticalisation has not yet progressed fully out of stage 2. On the other hand, a tendency for favouring an epistemic interpretation of the ambiguous sentence could be shown, too, illustrating the developing functional independence of epistemic *dürfte*.

Keywords: grammaticalisation, critical contexts, epistemic modal verbs, German

Ambiguität in kritischen Kontexten:
Der lexical split des deutschen Modalverbs *dürfte*

In seinem Grammatikalisierungsprozess durchläuft das Modalverb *dürfen* einen sogenannten lexical split: Seine Konjunktiv II-Form *dürfte* spaltet sich von der ursprünglichen, nicht-epistemischen Bedeutung des Erteilens einer Erlaubnis ab. Sie entwickelt sich zu einem epistemischen Marker phorischer Nichtfaktizität, der sprecher: innenbasierte Einschätzungen der Wahrscheinlichkeit einer Proposition ausdrückt (Politt 2022). Die epistemische Lesart von *dürfte* wird dabei Teil der grammatischen Kategorie Modus, während die nicht-epistemische Lesart weiterhin Teil der lexikalischen Klasse der Modalverben bleibt. *Dürfte* ist in seiner Grammatikalisierung bereits weit fortgeschritten und befindet sich zwischen Stufe 3 und 4 seines Grammatikalisierungsprozesses. Jedoch finden sich auch Belege für Reste der Grammatikalisierungsstufe 2 (Lehmann 2002, Diewald 2009). Der vorliegende Beitrag analysiert 92 ambige Belege für *dürfte*, entnommen aus dem DWDS-Kernkorpus des 20. Jahrhunderts (Geyken 2007), die Beispiele für kritische Kontexte, also Grammatikalisierungsstufe 2, darstellen. Sie können sowohl epistemisch als auch nicht-epistemisch interpretiert werden. Die epistemische Lesart von *dürfte* entwickelt sich zur Default-Interpretation dieser Form (Mortelmans 2019, Politt 2022), weshalb die ambigen Sätze hinsichtlich ihrer Ähnlichkeit zu typischen epistemisch zu interpretierenden Sätzen analysiert werden. Dazu werden die Belege hinsichtlich ihrer Merkmale in drei Klassen betrachtet: (i) Eigenschaften des Subjekts, (ii) des Verbkomplements und (iii) des Satzkontextes. Hier zeigt sich Variation in allen drei Klassen, was darauf hindeutet, dass *dürfte* die Grammatikalisierungsstufe 2 noch nicht vollständig verlassen hat. Jedoch kann eine Tendenz zur epistemischen Interpretation festgestellt

werden, was die sich entwickelnde funktionale Eigenständigkeit von *dürfte* im Gegensatz zum nicht-epistemischen *dürfen* illustriert.

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1. Introduction

The development of epistemic readings of modal verbs has been of ongoing interest in grammaticalisation research (e. g. Baumann 2017, Diewald 1999, Hilpert 2013, 2016, Mortelmans 2007, Müller/Reis 2001, Scherr 2019).[1] In their epistemic reading, modal verbs in German take a verbal complement and express a speaker-based judgement of the factuality of a proposition. They modify the deictic perspective of a verbal scene (cf. e. g. Diewald 1999, Maché 2019). Epistemic *dürfte* is "one of the most grammaticalized items within the paradigm of German epistemic modal verbs" (Mortelmans 2000: 209). Its epistemic reading is illustrated in (1).

(1) *Der Bus dürfte in fünf Minuten hier eintreffen.*[2]
     'The bus will probably be here in five minutes.'

Epistemic *dürfte* is grammaticalising into a marker of phoric non-factuality, more specifically of a speaker-based factuality judgement. It denotes the probability of the factuality of the proposition (cf. Politt 2022, Mortelmans 2019). This function places it in opposition to epistemic *mag* ('may') and the various forms of the subjunctive II in the grammatical category MOOD (cf. Diewald 2009, Politt 2022). In addition to the factuality judgement, Mortelmans (2019: 125) assumes a partially evidential meaning of *dürfte*, classifying it as an "intersubjective, epistemic-evidential marker". Since the epistemic reading can only occur with the aforementioned subjunctive II, its grammaticalisation has been classified as an instance of an ongoing lexical split (cf. Maché 2019: 128, Mortelmans 2019). The epistemic use is on its way to becoming "a non-decomposable unit" (Mortelmans 2000: 209).

While most studies concerning the grammaticalisation of modal verbs deal with the opposition between multiple readings of the same modal auxiliaries or oppositions between multiple modal auxiliaries (see e. g. Hilpert 2016, Hilpert/Flach 2020, Flach 2020, Maché 2019, Politt 2022, Scherr 2019), the present paper investigates ambiguous forms of *dürfte*. Ambiguous forms are in between clearly distinguishable readings as opposed to example (1). When trying to paraphrase their meaning as either non-epistemic or epistemic, both paraphrases are grammatically and semantically correct and cannot be distinguished properly by the wider textual context either. (2)

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[1] I would like to thank the two anonymous reviewers for their feedback on this paper. All remaining faults are of course my own.

[2] DWDS; Lebert, Benjamin: Crazy, Köln: Kiepenheuer & Witsch 1999 [1999], S. 113.

provides an example for an ambiguous use of *dürfte*, where both the epistemic and the non-epistemic paraphrase are possible.

(2)　*Erwerbstätige **dürften** künftig öfter als bisher ihren Status **wechseln**.*[3]
　　'Employed persons are probably going to change their status more often than before' (epistemic).
　　'Employed persons would be allowed to change their status more often than before' (non-epistemic).

Ambiguous forms have been known to be of vital importance for tracing the grammaticalisation paths of elements, especially in regard to their semantic changes. The context features that occur in critical and later in typical contexts (cf. Diewald 2002, 2009) provide restrictions in regard to e.g., subjectiveness and agentivity (cf. Traugott 1995, 2012; Traugott/König 1991).

It is forms like these that are of special interest from a grammaticalisation perspective: While specific contextual factors that co-occur with epistemic and non-epistemic readings of modal verbs are known, e.g., features of the subject or the verbal complement, ambiguous forms can shed light on how far the grammaticalisation has progressed (cf. Traugott/König 1991, Traugott 2012).[4] Which contextual features of which reading can be found to co-occur with the ambiguous sentences? Looking at these contextual cues can help to identify areas where the grammaticalisation of epistemic *dürfte* is not yet complete.

Section 2 describes the stages and parameters of grammaticalisation processes necessary for this. The different uses of *dürfte* and the preferred contexts for each reading are discussed in Section 3. Section 4 describes the data used for the analysis carried out in Section 5. Section 6 then offers concluding remarks on the grammaticalisation status of *dürfte* and the usefulness of ambiguous examples for determining the functional areas in which an element is currently undergoing change.

2. Critical contexts in grammaticalisation processes

Grammaticalisation processes as such can be described in two ways: (i) according to the parameters that are increasing or decreasing during the process and (ii) according

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[3] DWDS; Die ZEIT 2000/6.

[4] Other means of measuring the progress of grammaticalisation processes have recently been discussed e.g. by Correia Saavedra (2021). It needs to be noted that no class of modal verbs as in 'a class of modal verbs that includes both non-epistemic and epistemic readings' is assumed here. The epistemic readings grammaticalises into independent grammatical elements, resulting in a class of non-epistemic modal verbs and a class of epistemic markers of factuality, which are part of the grammatical category MOOD in German, and which stand in opposition to other grammatical markers of factuality judgements, like the subjunctive mood (cf. Diewald 1999; Diewald & Smirnova 2010a, 2010b; Politt 2022). When investigating the grammaticalisation path of modal verbs, we can define their target structure as the grammatical category MOOD. Their non-epistemic variants remain part of the class of non-epistemic modal verbs.

to the stage of the process that a grammaticalising element is currently in. The first is covered by Lehmann's (1985, 2002, 2004) well-known grammaticalisation parameters. For the current task of describing the grammaticalisation of a form into a grammatical category, the most important parameters are paradigmaticity and paradigmatic variability, the latter also being known as obligatorification (cf. Politt 2022). The second way describes how these parameters change in the different stages of grammaticalisation: In the first stage, an element has to appear in atypical contexts, where a new, increasingly grammatical function develops. In the second stage, the element then enters so-called "critical contexts" (cf. Diewald 2009: 453), where multiple interpretations coexist (cf. also Diewald 2002). This ambiguity is partially resolved in the third stage, where each reading of a grammaticalising element develops its own "isolating contexts" (cf. Diewald 2009: 453), i. e., becomes increasingly associated with a typical context. In the subsequent fourth stage, the grammaticalising sign becomes part of the functional oppositions within a grammatical category (cf. Diewald 2009, Diewald/Smirnova 2012). The analysis in Politt (2022) has shown that epistemic *dürfte* is already partially in stage 4. It is developing into a member of the grammatical category MOOD. The members of MOOD share a common function, the speaker-based assessment of the factuality of a statement (cf. Diewald 1999, Palmer 2001, Portner 2018), "the degree of commitment of the speaker to the truth or future truth of the proposition" (Bybee et al. 1994: 320).

The critical contexts of grammaticalisation stage 2 are the ones that will be of interest in the latter analysis. The context features in these ambiguous cases can help in identifying areas where the grammaticalisation process is not yet complete, even though epistemic *dürfte* is known as the most grammaticalized German epistemic modal (cf. Mortelmans 2019).

3. German *dürfte* in its epistemic and non-epistemic use

Non-epistemic *dürfen* means 'to be allowed to do something'. This is illustrated in (3).

(3) *Ein kleines Mädchen fragte, ob es die Kaninchen **füttern dürfte**, […].*[5]
    'A little girl asked whether she would be allowed to feed the bunnies, […].'

The epistemic reading ('it is probably the case that x') can only occur in the subjunctive II forms (*dürfte/st/t/n*) (cf. Diewald 1999, Kunkel-Razum/Eisenberg 2009, Helbig/Buscha 2017). (4) provides an example for epistemic *dürfte*.

(4) *Die Zahl der Gesetze **dürfte** dennoch weiter **wachsen**.*[6]
    'The number of laws will probably grow nevertheless.'

The epistemic reading is not yet exclusive in these forms, but it is already typical (cf. Scherr 2019, Politt 2022). Epistemic *dürfte* is "generally associated with the expression

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[5] DWDS; Kopetzky, Steffen: Grand Tour, Frankfurt am Main: Eichborn 2002, S. 525.
[6] DWDS; Die Zeit, 6.4.2000, Nr. 15.

of speaker-oriented probability" (Mortelmans 2000: 205). By using *dürfte*, speakers make an assumption about how likely it is that something is the case/is going to happen, based on their knowledge of the circumstances (cf. Politt 2022: 300). This knowledge is often obtained or noted somewhere in the preceding context.

In both (3) and (4) no alternative interpretation is possible: *'The number of laws would be allowed to grow nevertheless' is not a possible reading of (4) and *'A little girl asked whether she would probably feed the bunnies' is not a possible reading of (3) likewise. But in some cases, both readings are possible, as was shown in (2). An ambiguous reading allows for both paraphrases, either assessing the likelihood of the change of status, or commenting on the allowance of changing the status. It is these forms where even the wider context does not provide sufficient information for disambiguation which mark *dürfte* as not yet fully grammaticalised. The ambiguous sentences are possible occurrences of *dürfte* in critical contexts, remnants of its development of preferred context features (cf. Diewald 2009), which later serve as a means for distinguishing different readings (cf. Cappelle/Depraetere 2016, Firth 1957, Hilpert 2016).

In the following, typical context features for epistemic and non-epistemic *dürfte* are described. It is based on these context features that the ambiguous forms in the data can be classified as more likely to be epistemic or more likely to be non-epistemic. The contextual factors that are known to co-occur with epistemic and non-epistemic readings of modals and *dürfte* in particular (cf. Heine 1995, Diewald 1999, Baumann 2017, Maché 2019, Politt 2022, Scherr 2019) can be split up into three groups: features of the subject, features of the verbal complement, and the wider (sentence) context. Together they constitute the speaker's knowledge of the different modal meanings based on the combinatorial patterns these features exhibit (cf. Hilpert 2016).

In the first group are features of the subject. Epistemic modals are known to prefer third person, inanimate or impersonal/expletive subjects. First person subjects are dispreferred (see e. g., Diewald 1999). Speakers can of course make judgements about how likely it is that they are going to do something ('I might grab a coffee later'). But making (informed) assumptions about something or someone else is more common ('This might be true'). Politt (2022: 291) notes that epistemic *dürfte* is associated positively with proper names or noun phrases. A typical subject for epistemic *dürfte* is thus provided in (5).

(5)   ***Dieser Einwand*** *dürfte besonders dann gelten, wenn vollständig automatisch arbeitende Programme zur Detektion des maximalen positiven Gipfels eingesetzt wurden.*[7]
    '**This objection** probably applies especially if fully automated programs were used to detect the maximum positive peak.'

In (5) the subject is the inanimate third person noun phrase *dieser Einwand*. The demonstrative article *dieser* ('this') denotes an anaphoric reference to elements of the previous discourse. The referenced proposition is an objection which was mentioned previously and is now repeated in a summarising manner (cf. Diewald 1999: 232). Proper names are often used in sentences as *Toni dürfte Recht haben* ('Toni might be right').

In opposition, a typical subject for non-epistemic reading is known to co-occur with animate and personal subjects (cf. Baumann 2017, Maché 2019). It also more likely for first and second person subjects to occur with non-epistemic *dürfte* because its semantics of 'being allowed to do something', which lends itself to directive speech acts and interactions between two people.

The second group of features concerns the verbal complement. Epistemic *dürfte* prefers either stative, resultative, or quantifying verbs or verbs in the perfect infinitive (*dürfte gelesen haben*; 'has probably been reading') (cf. Diewald 1999: 218, 257; Maché 2019: 280; Politt 2022: 291). The perfect adds a resultative meaning to verbal scenes with otherwise non-resultative verbs.

The last group of features is the wider context. The first factor is the genre of the text, where epistemic forms of *dürfte* are known to prefer non-literary and journalistic texts (Raynaud 1975: 378, Diewald 1999: 233, Politt 2022: 238, 291). This is due to the nature of the texts – in academic or journalistic texts, it is more often useful to mark the degree to which the speaker/writer thinks a statement is factual or non-factual. Take (6) as an example:

(6)   *Das dürfte sich ändern.*[8]
        'This is probably going to change.'

Example (6) is from a journalistic text, the German newspaper DIE ZEIT. The author makes an informed assumption about a state in the future: Something that has been mentioned in the text before is going to change with a certain degree of probability. They cannot say that it will actually change but based on their discourse-based knowledge it is highly likely that "this" will change. Another genre that epistemic *dürfte* prefers is discussions (cf. Mortelmans 2019), where epistemic *dürfte* is used in summarising remarks ('Based on what I just said, this is probably the case'). Non-epistemic forms are typical in literary or instructional texts (cf. Diewald 1999). Regarding the sentence type, the sentences in which epistemic *dürfte* occurs tend to be main or matrix clauses (cf. Politt 2022: 238). No clear preference is known for non-epistemic *dürfte*.

The present paper will investigate which of these factors occur in the ambiguous sentences. By determining this, it will be possible to rate the sentences regarding to how typical they are for the grammaticalising meaning of *dürfte* and what parts of

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[8] DWDS; Die Zeit, 05.01.2000, Nr. 2.

the original non-epistemic functionality is still left, i.e., how critical these critical contexts still are.

4. Data

The data used here is based on the analysis in Politt (2022). There, 3274 forms of *dürfte* that could potentially take on an epistemic reading[9] were extracted from the DWDS Core Corpus of the 20th century (DWDS; Geyken 2007). The DWDS covers the years 1950–1999 and consisted of about 121 million tokens in about 79 thousand documents at the time of data collection. The documents cover four different genres: fiction (28.42 %), non-literary (21.05 %), academic/scientific (23.15 %), and journalistic texts (27.36 %).[10] Each of the genres consists of about 120 million tokens. 2498 forms (76.30 %) were epistemic, 684 (20.89 %) non-epistemic, and 92 (2.81 %) were ambiguous[11]. The numbers indicate that the epistemic reading is well on its way to become the default reading for epistemic *dürfte* as previously suggested. However, it is still possible that *dürfte* with a verbal complement can take on a non-epistemic-reading as well as shown above. This is reflected in the data: The majority of sentences were epistemic, but some non-epistemic and ambiguous forms persist. This indicates that the assumed lexical split is not yet complete, even though "*dürfte* is a highly grammaticalized item" (Mortelmans 2000: 211), and remnants of grammaticalisation stage 2 and 3 can be identified.

In Politt (2022), only the epistemic forms of *dürfte* were analysed. In order to determine the grammaticalisation status of epistemic *dürfte,* the remaining ambiguous forms, which were not analysed in Politt (2022), serve as the base for the present paper.[12]

5. Analysis and results: ambiguous forms and their contexts

The ambiguous sentences were tagged for the following variables, which result from the features discussed in Section 3: (i) the form of the subject, (ii) the animacy of the subject, (iii) the definiteness of the subject, (iv) the semantics of the verbal complement, (v) the form of the verbal complement, (vi) the genre of the text, and (vii) the sentence type. Because of the relatively small number of ambiguous forms (n=92), the following section contains only a descriptive analysis of the context features and

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[9] These are the forms *dürfte*, *dürftest*, *dürftet*, *dürften* with a verbal complement. This means that forms like e.g. *Du darfst das nicht* ('You are not allowed (to do) that') were not included.

[10] See https://dwds.de/r, last accessed 23.6.2021.

[11] An ambiguous sentence is a sentence where paraphrases for both the epistemic and non-epistemic reading were possible (cf. section 3). If sentences were considered ambiguous, the wider context of the sentence was taken into account. If the context helped in disambiguating the reading, the sentences were tagged as the respective reading. The cases that are left are those where the context did not help in clearly distinguishing the reading of epistemic *dürfte*.

[12] Data available at: https://osf.io/jv7c5/.

their possible relation to known context preferences of the readings of *dürfte*. The aforementioned features can be divided into (i) features of the subject (form, animacy, definiteness), (ii) features of the verbal complement (semantics, form), and (iii) features of the wider context (genre, sentence type).

5.1 Features of the subject in ambiguous sentences

Most of the ambiguous forms occur with noun phrases as their subjects (n=44), followed by pronouns (n=35). A typical noun phrase is shown in (7).

(7)   ***Die Verjährungsfrist*** *dürfte also eigentlich erst mit diesem Zeitpunkt beginnen.*[13]
      'The limitation period should thus actually begin at this time' (non-epistemic).
      'The limitation period thus probably beings at this time' (epistemic).

A small number of forms has proper names (n=5), sentences (n=4) (ex. 8), and impersonal *es* (n=3) (ex. 9) as their subject.

(8)   *Gleichwohl dürfte es in der Praxis nicht ausgeschlossen sein,* ***daß vor allem in Branchen und Betrieben mit hohem Organisationsgrad die Betriebsräte bei Einstellungsgesprächen nachhaltig zum Gewerkschaftsbeitritt ermuntern.***[14]
      'It should nevertheless not be ruled out in practice that especially in industrial sectors and companies with a high union density, the workers' council encourages applicants in job interviews to join the union'[15] (non-epistemic).
      'It is probably not ruled out in practice that especially in industrial sectors and companies with a high union density, the workers' council encourages applicants in job interviews to join the union' (epistemic).

(9)   *Auch heute dürfte* ***es*** *noch so sein, und nichts wäre falsch.*[16]
      'Today it would be allowed to be like this, too, and nothing would be wrong' (non-epistemic).
      'It would probably be like this today, too, and nothing would be wrong' (epistemic).

One form has no subject, which, as can be seen in (10), is due to the verbal complement in this case, which does not need a grammatical subject.

(10) *Daran dürfte keinem Intendanten gelegen sein.*[17]
      'No intendant/director should care about that' (non-epistemic).
      'No intendant/director probably cares about that' (epistemic).

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[13] DWDS; o. A. [pra]: Verjährung. In: Aktuelles Lexikon 1974–2000, München: DIZ 2000 [1999].

[14] DWDS; o. A. [Th.]: Closed shop. In: Aktuelles Lexikon 1974–2000, München: DIZ 2000 [1976].

[15] While the English translation suggests that the subject in the German example is *it*, it is in fact the subordinate clause. The sentence initial *es* ('it') is a so-called Korrelat-*es*, which is not a real subject but a placeholder in subject position, which is omitted once the subordinate clause is moved in front of the finite verb.

[16] DWDS; Graudenz, Karlheinz u. Pappritz, Erica: Etikette neu, Berlin: Deutsche Buch-Gemeinschaft 1967 [1956], S. 550.

[17] DWDS; Die Zeit, 29.4.1998, Nr. 19.

Epistemic *dürfte* is known to prefer noun phrase and proper names as its subjects (cf. Diewald 1999, Mortelmans 2019, Politt 2022). Depending on which interpretation to follow here, one can arrive at two conclusions: First, noun phrases and proper names occur in 49 (53.26 %) of ambiguous sentences. The remaining 43 sentences have atypical – or: less typical – subjects for epistemic *dürfte*. Second, when assuming that pronouns might play a role for epistemic *dürfte* as well because of their summarising reference, the number of typical subjects increases to 84 (91.03 %). This assumption goes along well with the tendencies of *dürfte* to occur at the end of a discourse, summarising or quantifying a proposition, which is simultaneously rated in regard to its factuality.

Form, animacy, and definiteness of the subject are necessarily intercorrelated. Most of the subjects are inanimate (n=61), 26 are animate.[18] The majority of subjects is definite (n=71), 16 are indefinite. Of the inanimate subjects, 52 are definite and 9 are indefinite. 19 of the animate subjects are definite and 7 are indefinite. Epistemic *dürfte* is known to be positively associated with definite and inanimate subjects (Diewald 1999, Heine et al. 1991: 177). The majority of ambiguous sentences show this combination, too. So while the sentences are ambiguous in their interpretation, the features of the subject could indicate that an epistemic reading is already more likely.

As mentioned above, the most common subjects in the ambiguous sentences were noun phrases (n=45) and pronouns (n=35). There are mostly inanimate/definite noun phrases in the data (n=32), only four animate/definite noun phrases, and six inanimate/indefinite, as well as two animate/indefinite noun phrases. Similar to the features of the subject in general, the animacy and definiteness of noun phrases as subjects in ambiguous sentences tend towards typical features of subjects of epistemic *dürfte*.

Looking at the pronouns however, the picture is not as clear. 19 of the 35 pronouns are definite/inanimate pronouns, and 11 are definite/animate pronouns. Only five pronouns are indefinite and animate. While pronouns are seen as a typical subject in some descriptions of epistemic *dürfte* (e. g. Mortelmans 2019), they are not as typical as they might seem. When comparing epistemic *dürfte* to its oppositional partners within the grammatical category MOOD, e.g., epistemic *mag* ('may'), pronouns are not positively associated with *dürfte* (cf. Politt 2022: 206). The more inconsistent picture here might thus result from pronouns being atypical for epistemic *dürfte* in comparison to other modals.

5.2 Features of the verbal complement in ambiguous sentences

Both the form and the semantics of the verbal complement are known to be of influence when it comes to attributing forms to epistemic and non-epistemic uses. In the

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[18] Sentences without a subject and subjects that were filled by subordinate clauses were counted separately from the inanimate and indefinite subjects, hence the difference in numbers for form, animacy, and definiteness.

data, 83 verbal complements are bare infinitives, and nine are analytic forms such as the perfect infinitive *entgangen sein* in (11).

(11)   *Dem Sun-Autor Blair dürfte das nicht entgangen sein.*[19]
          'The Sun-author Blair should not have missed that' (non-epistemic).
          'The Sun-author Blair probably did not miss that' (epistemic).

Epistemic modals are known to prefer bare infinitives or the perfect infinitive (cf. Mortelmans 2019: 117, see also e.g., Diewald 1999: 218, Maché 2019: 280). In direct comparison with its oppositional partner *mag*, epistemic *dürfte* is known to be positively associated with the perfect infinitive (cf. Politt 2022: 217). The ambiguous sentences however show only few perfect infinitives. In this regard, the verbal complements of the ambiguous forms are atypical if interpreted as conveying epistemic meaning.

Considering its semantics, the verbal complement of epistemic modals is preferably summative, quantifying, stative or resultative. This is also the case for epistemic *dürfte*, which prefers stative, resultative, and quantifying complements (Politt 2022). Due to the small number of total occurrences and the high number of resulting hapax-complements, no collocational analysis was conducted (see Stefanowitsch 2013, Stefanowitsch/Gries 2003). A total of 62 different verbal complements occur with ambiguous *d*ürfte. Of those, only ten occur more than once: *sein* ('to be') (14), *haben* ('to have') (4), *überschreiten* ('to cross') (3), *bleiben* ('to stay') (2), *freuen* ('to be happy') (2), *spielen* ('to play') (2), *geben* ('to give') (2), *interferieren* ('to interfere') (2), *machen* ('to make') (2), and *schwerfallen* ('to be difficult for s.o.') (2).[20] A high number of different complements is known to indicate a rather unspecific function (cf. Jäntti 1983, Korhonen 1977). Since no collexeme analysis was conducted for the ambiguous forms, the verbal complements cannot be compared to the distinctive collexemes of epistemic *dürfte* described in Politt (2022) directly. A look at the complements which are not hapaxes shows that only four (*sein*, *haben*, *bleiben*, *schwerfallen*) display the preferred semantics for the epistemic reading. One occurrence of *spielen* is stative, too, as it is used as in *eine Rolle spielen* ('to play a role'). The status of the verbal complement thus remains partially unclear: First, because only raw numbers were looked at due to the small number of ambiguous sentences. Second, because while the most frequent complements do display the semantics preferred by epistemic *dürfte*, there are still a lot of forms which deviate from these semantics. The verbal complements of the ambiguous forms show a great deal of variation, which fits well with the ambiguous interpretation of the forms. Interestingly, out of the complements occurring with the positively associated analytic forms all but two (*überschreiten* ('to cross'), *ausschließen* ('to exclude') do not display the preferred semantics: *entgehen* ('to miss sth'), *knüpfen* ('to tie sth to sth'), *auslösen* ('to provoke

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[19] DWDS; Die Zeit, 25.6.1998, Nr. 27.

[20] The remaining complements which only occur once are listed in the appendix.

sth'), *vorstellen* ('to imagine sth'), *nachweisen lassen* ('to provide evidence'), *gestatten* ('to permit'), *herstellen* ('to create').

While most features of the subject pointed towards an epistemic interpretation of the ambiguous sentences, the verbal complements do not lend themselves towards a similar conclusion. This could be seen as the first indicator as to why these sentences retain an ambiguous reading.

5.3 Features of the sentence context in ambiguous sentences

Two features were included in the last category: (i) the genre of the text and (ii) the sentence type.[21] Regarding the genre of the text, epistemic *dürfte* has been shown to be positively associated with non-literary and journalistic texts (cf. Politt 2022: 227). 30 of the ambiguous sentences occur in journalistic, 27 in non-literary texts. 25 sentences occur in scientific texts and only ten in literary texts. The latter genre is known to be negatively associated with the epistemic reading of *dürfte* (cf. Politt 2022: 227). Consequently, the genre of the text the ambiguous sentences occur in seems to be mainly preferable for an epistemic interpretation.

The second feature of the wider context is the sentence type the modal and its complement occur in, distinguished into main and subordinate clauses. More than two thirds of the ambiguous forms occur in main clauses (n=61), the remaining 31 in subordinate clauses. Epistemic *dürfte* is known to be positively associated with main clauses (cf. Politt 2022: 224), so the ambiguous forms seem to tend occur in a sentence environment that is more typical for epistemic sentences. In view of this, the sentence type does not seem as clear an indicator of possible epistemic reading, but is typical in the majority of cases nonetheless.

6. Conclusion

This paper analysed the features of 92 ambiguous sentences of the German modal verb *dürfte* ('to be allowed to do something'), which is currently undergoing a lexical split. The epistemic meaning – a speaker-based assessment of the reality of the proposition – is becoming increasingly associated with the subjunctive II-forms. The sentences were analysed descriptively according to three classes of features: (i) features of the subject, (ii) features of the verbal complement, and (iii) features of the sentence context. It was assumed that the epistemic reading of *dürfte* is already developing to be the default

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[21] Another feature of the wider context known to be positively associated with an epistemic interpretation of *dürfte* is e. g. the occurrence of modal particles such as *wohl* ('probably') and *sicher* ('surely'), as shown in Mortelmans (2019) and Politt (2022). In the 92 ambiguous sentences analysed here, only four modal particles were present (*eigentlich* ('actually') three times and *gewiss* ('surely') once). While this number is so small that modal particles were not included in the analysis, their semantic similarity to the particles associated with epistemic *dürfte* is worth noting.

interpretation (cf. Diewald 1999, Mortelmans 2019, Politt 2022). The elements of the sentences were thus compared to features known to be associated with the epistemic reading of *dürfte*. In order to identify the remaining critical contexts, the remnants of grammaticalisation stage 2, the differences between the ambiguous sentences and typical epistemic sentences were of particular interest.

Variation was found in all three feature classes: In regard to the subject features, the sentences show a majority of positively associated features of epistemic *dürfte*. Most subjects are definite and inanimate noun phrases, a typical feature combination in epistemic assessments. But the ambiguous sentences also contained many pronouns as subjects, which, while fitting well with the summarising manner of epistemic *dürfte*, have been found to be more typical for its oppositional partner, epistemic *mag* ('may') (cf. Politt 2022). This is underlined by the greater variation in definiteness and animacy within the pronouns.

A less clear picture could be found within the features of the verbal complement, mainly due to the fact that most complements were hapaxes. However, the most frequent complements display the semantics preferred by epistemic *dürfte*. The variation in complements could be taken as an additional indicator of the ambiguous status of the sentences. The third class, the features of the wider context, consisted of the genre of the text and the sentence type. In regard to the sentence type, epistemic *dürfte* is known to be positively associated with main clauses and negatively associated with subordinate clauses (cf. Politt 2022). The relatively high rate of sentences with *dürfte* occurring in a subordinate clause (33.7 %) could be taken as an indicator for the ambiguity of these cases. Lastly, the genre of the texts in which the sentences occurred is mainly typical for the epistemic interpretation of *dürfte* (non-literary, scientific, and journalistic texts). Only 10.87 % of sentences occurred in the dispreferred genre of literary texts.

Even though it can be said that epistemic *dürfte* is still in between stage 3 and stage 4 of its grammaticalisation into a fully independent grammatical marker of speaker-based factuality, the remnants of stage 2 as illustrated in the critical contexts already show a tendency towards the epistemic interpretation. Not many critical contexts could be found (n = 92, 2.81 % of all forms of *dürfte* originally analysed in Politt 2022), and it is likely to assume that this number will decrease even further. Epistemic *dürfte* is thus indeed 'well on its way to become a non-decompositional unit' (cf. Mortelmans 2019). It is on its way to become functionally independent from its origin, non-epistemic *dürfen* on the one hand, and to become functionally interdependent with the other members of the grammatical category MOOD on the other hand.

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Appendix

I. Complements of ambiguous *dürfte* which only occur once

angehören ('belong'), *annehmen* ('assume'), *antworten* ('reply'), *ausüben* ('exercise sth'), *ausfallen* ('turn out'), *auslassen* ('leave out'), *ausschließen* ('exclude'), *beginnen* ('start'), *bereiten* ('cause'), *besinnen* ('bethink'), *bestehen* ('exist'), *bezeichnen* ('name sth'), *bieten* ('offer'), *dulden* ('endure'), *einflößen* ('instill'), *empfinden* ('feel'), *entgehen* ('miss'), *erhöhen* ('increase'), *erhoffen* ('hope'), *erscheinen* ('seem'), *erstaunen* ('astonish'), *erzeugen* ('create'), *folgen* ('follow'), *gehören* ('belong'), *gelten* ('apply to sth'), *gestatten* ('allow'), *haltmachen* ('stop'), *herstellen* ('create'), *innewerden* ('grow aware of sth'), *knüpfen* ('tie to sth'), *kosten* ('cost'), *liegen* ('lay'), *nachweisen lassen* ('let sth be proven'), *nehmen* ('take'), *nennen* ('call'), *passen* ('fit'), *rücken* ('move over'), *stöhnen* ('groan'), *stammen* ('derive from'), *steigen* ('increase'), *treten* ('come into effect'), *umringen* ('surround'), *verfügen* ('command sth'), *verfestigen* ('intensify'), *verlängern* ('lengthen'), *verziehen* ('frown'), *vorstellen* ('imagine'), *wünschen* ('wish'), *wagen* ('dare'), *weiterbehandeln* ('continue to treat'), *werden* ('become'), *wiederholen* ('repeat'), *wiegen* ('weigh'), *zählen* ('count'), *zukommen* ('attribute to sth'), *zumuten* ('expect sth of sb') and *zustandekommen* ('to come about').

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