

On the Categorical Properties of English and German Modal Verbs

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Abstract

Considering the prototypical properties of English and German verbs, this paper analyzes the categorial status, i.e. the part of speech, of core modal verbs in both languages. Illustrating the morphological and syntactic properties of modal elements in both languages, the paper demonstrates that English modals do not exhibit verbal properties and therefore cannot be considered to be verbs, despite the frequently held view. Furthermore, the paper illustrates that German modal verbs possess the majority of prototypical verbal properties, and therefore are to be considered legitimate members of this part of speech.

Keywords: modal verb, lexical verb, part of speech, subcategorization, agreement, English, German

1. Introduction

Modal verbs in any language provide fertile ground for linguistic research, and not many areas of the language have enjoyed such careful scholarly attention. Therefore, it is all the more interesting that neither in English nor in German is there yet any general agreement on the most basic question connected with modals – namely if **modal verbs** are actually **verbs**. The aim of this paper is to compare and contrast the properties of modal verbs with the properties of lexical verbs in two languages – English and German. Based on this analysis, the study ascertains to what extent modal verbs in both languages demonstrate verbal properties, and thus if they are to be recognized as verbs or form a separate part of speech.

2. The Notion of Parts of Speech

In order to analyze modal verbs in terms of the **part of speech** to which they belong, it is necessary to define the diagnostics used in the division of words into different parts of speech, i.e. the criteria for establishing them. Categories in various scientific disciplines such as chemistry or biology are based on the similarity of features shared by members of that category, and all classifications in linguistic research – in this case the division into parts of speech – should be treated on the same grounds. Parts of speech, sometimes referred to as *word categories* or *syntactic categories*, encompass words with the same morphological and syntactic properties.¹ Biber et al. (62) define the notion of parts of speech similarly – viewing them as groups of words “characterized by a combination of morphological, syntactic, and semantic features.”

As a diagnostic illustration based on a **morphological criterion**, English nouns can appear as plural whereas this property is not shared by English adjectives, as shown in example (1).

- (1) NOUN: *boy* → *boys*, *child* → *children*
ADJECTIVE: *interesting* → **interestings*, *happy* → **happies*

Similarly, adjectives in German can be graded, which is not the case of German verbs, as shown in example (2). Therefore, it can be concluded that *schön* and *gut* are adjectives, whereas *machen* and *studieren* are not.

- (2) ADJECTIVE: *schön* → *schöner*, *gut* → *besser*
VERB: *machen* → **machener*, *studieren* → **studierener*

In terms of **syntactic properties**, words can be divided into word categories based on their distribution, i.e. their position in a sentence and their syntactic environments. In English, nouns can be pre-modified by determiners, which does not hold for adjectives or verbs, as shown in example (3).

- (3) NOUN: ***The*** *cat is under the table.*
ADJECTIVE: **This book is **the** interesting.*
VERB: **I **the** work in Prague.*

Members of the same part of speech generally share more properties – e.g. English adjectives can be graded (4a), can modify a noun (4b), can be pre-modified by *so* or *very* (4c), or can function as predicates after copula verbs like *seem* or *look* (4d).

- (4) a. *He is **happier** now.*
b. *He is a **happy** child.*
c. *He is **so/very** happy.*
d. *He **seems** happy.*

Every part of speech has, however, its central as well as peripheral members, which do not exhibit all prototypical properties – such as the adjective *infinite*, which can neither be graded nor modified by *so* or *very* – see the examples below.

- (5) a. *This lecture is **more** infinite than the previous one.
 b. He has got **infinite** patience.
 c. *This is **so/very** infinite.
 d. This **seems** infinite.

Still, the word *infinite* is considered to be an adjective, and, indeed, it would not be effective to invent a new part of speech for such restricted members. Every science, linguistics included, applies economy of description; i.e. one should not invent more categories than are absolutely necessary. This principle will also be applied in this paper.

In traditional approaches to grammar, parts of speech are defined on **semantic grounds** – nouns denote a person, thing, animal or idea, adjectives denote properties, qualities or states, etc. However, it must be stressed that considering this criterion may be, in contrast to the morphological and syntactic criteria, misleading. Verbs are frequently defined as denoting actions and activities. Following the semantic definition, the Czech word *psaní* would then be analyzed (incorrectly) as a verb. However, it is a noun, since it has morphological and syntactic properties of nouns – i.e. it does exist in various cases, or it can be combined with a demonstrative pronoun. Furthermore, as Warner (10) exemplifies, pairs such as *love* (verb/noun) vs. *fond* (adjective) or *courage* (noun) vs. *brave* (adjective) refer to the same entities; still, they belong to different parts of speech. Since semantic criteria are unreliable, and moreover there are no formal categories of meaning which could be compared, they will not be considered in this paper when analyzing parts of speech.

3. Modal Verbs vs. Lexical Verbs in English

The aim of this section is to compare and contrast the properties of English modal and lexical verbs from the perspective of their morphology and syntax. This paper focuses on central modals, which include *can*, *could*, *may*, *might*, *should*, *will*, *would* and *must*. The most striking property of this group is definitely the absence of the **morpheme –s** in the third person singular – examples (6).

- (6) a. *He works at weekends.*
 b. *He must/*musts work at weekends.*

Despite the fact that this distinctive property is mentioned most often in connection with modals, it does not have much relevance for a **synchronic** analysis of Modern English, since this peculiarity dates back to Proto-Indo-European and Proto-Indo-Germanic – 3,000 B.C. and 500 B.C. respectively. The lack of the agreement suffix is a result of the fact that modals developed from “preterite-present” verbs, i.e. the present forms are descendants of originally past forms; compare the examples in (7a) and (7b).

- (7) a. *He broke/*brokes his leg.*
 b. *He can/*cans sing very well.*

Simply put, the reason why *can* does not have -s in the 3rd person is the same reason why *broke* is not compatible with the -s morpheme.

As far as **morphology** is concerned, modals do not possess any verbal form. Whereas verbs exist in infinitive, past, past participle and present participle forms, a prototypical modal does not possess any of these – see the comparison in (8):

- (8) LEXICAL VERBS: *to speak – spoke – spoken – speaking*
 MODAL VERBS: **to must – *musted – *musten – *musting*
**to can – could – *cannen – *canning*

As illustrated, the verb *must* does not appear in any of those forms. The verb *can* or *will*, on the other hand, has a past form. Interestingly, in the earliest stages of the development of the English language – more precisely in the Old and Middle English periods, some modals exhibited these forms, such as *cunnen* (past participle), or *willende* (present participle). According to Lightfoot (101) or Hopper and Closs Traugott (55), modal verbs ceased to have verbal properties in the 16th century.

In terms of **subcategorization**, modals do not demonstrate verbal properties either. Whereas lexical verbs have quite a varied subcategorization, i.e. they can be combined with NPs, VPs, PPs, APs or whole clauses, modals in English invariably combine only with VPs, as shown in parts (9) and (10):

- (9) LEXICAL VERBS: a. NP: *I want_{NP}[a chocolate].*
 b. VP: *I want_{VP}[to be at home].*
 c. PP: *He went_{PP}[to the church].*
 d. AP: *He looks_{AP}[tired].*
 e. Clause: *I think_{CL}[that he will like it].*
- (10) MODAL VERBS: a. NP: **I can_{NP}[the song] by heart.*
 b. VP: *I must_{VP}[be at home].*
 c. PP: **He must_{PP}[to the church].*
 d. AP: **He might_{AP}[tired].*
 e. Clause: **It may_{CL}[that he will like it].*

As illustrated by the examples above, Modern English modals do not systematically tolerate any type of phrase apart from the VP. This, however, was not the case in previous stages of the development of English. In Old and Middle English, some modal verbs could be combined with nominal objects – such as in sentences (11) and (12), taken from Warner (98) and Lightfoot (99):

- (11) *He symble wyle_{NP}[god] and næfre nan yfel.*
 He always desires good and never no evil.
- (12) *She koude_{NP}[muche of wandrynge] by the weye.*
 She knew much of wandering by the way.

In terms of **their syntactic behaviour**, the distribution of modals is complementary with that of verbs. There is **no** syntactic environment where a modal could be systematically replaced by a full verb or vice versa. Lexical verbs do not invert in questions, are not

followed by the clausal negative particle *not/n't*, and do not appear in question tags, as illustrated in (13a), (13b) and (13c) respectively.

- (13) a. QUESTIONS
Will he want it?
 **Wants he it?*
- b. NEGATION
*He will **not** want it.*
 He wants **not it.*
- c. QUESTION TAGS
*He will do it, **will** he not?*
 He wants to do it, **wants he not?*

Similarly to the previously mentioned properties, in earlier stages of the development of English, modals had the same distribution as lexical verbs – examples (14a) and (14b) provided by Millward and Hayes (115) show interrogative clauses containing a preterite-present and a full verb respectively.

- (14) a. *Canst ou temman hafocas?*
 Know how tame hawks?
- b. *Hwæt secge we be þæm coce?*
 What say we about the cook?

As stated in section 2, the division of words into parts of speech should be based on the morphological and syntactic properties shared by the elements of that group. The previous section showed that English modals do not have the properties of lexical verbs in **contemporary** English, either in terms of their morphology or syntax. Therefore, modals in English **are not verbs at all** but form a separate part of speech.

To sum up the properties of this part of speech, the members appear solely in finite forms (present or past) and lack any agreement morphology. As far as their syntactic properties are concerned, the group of modals are combined solely with the bare VP and invert in questions, are followed by clausal *n't*, and appear in question tags.

Concerning the status of modals with respect to **auxiliary verbs**, these two groups **partially** share sentence distribution, i.e. similarly to modals, the auxiliary verbs *do*, *be* and *have* invert in questions, appear in question tags, and are followed by the clausal negative particle *not/n't*. However, it must be pointed out that unlike modals, the auxiliary verbs *be* and *have* also have other (full verb) distribution. When they are preceded by a modal verb, they do not demonstrate the syntactic properties of modals, i.e. they do not invert in questions, are not followed by *not/n't*, and do not appear in question tags – as shown in examples (15).

- (15) a. QUESTION
*He will **have** done it.*
 ****Have** he will done it?*

b. NEGATION

*He will **have** done it.*

He will **haven't done it.*

c. QUESTION TAGS

*He will **have** done it, **won't** he?*

He will **have done it, **hasn't** he?*

Concerning their morphology, in contrast to modals, auxiliaries do have agreement morphology. Furthermore, *have* and *be* appear in infinitives and participles, unlike *do*, which is invariably finite – see examples in (16).

(16) a. *I like **being** talked about.*

b. *He claimed **to have** seen him then.*

As for subcategorization, only *do* has the same subcategorization as modals, i.e. a bare VP – auxiliaries *be* and *have* show a great variety of subcategorization including NP, *to* infinitive, *-ing* participle and *-en* participle, as illustrated in examples (17). None of these combinations are to be found with modals.

(17) a. *I had_{NP}[them] VP[do it].*

b. *I have_{VP}[to study hard].*

c. *I am_{VP}[studying hard].*

d. *I have_{VP}[stolen the car].*

As has been shown above, auxiliaries may demonstrate the same distribution as modals. On the other hand, there is a series of differences in morphology as well as in syntax, and therefore it would not be appropriate to regard modals and auxiliaries as an identical group.

As far as well-established grammar manuals are concerned, Quirk et al. (73) distinguish three **separate** parts of speech – modal verbs, primary verbs (= auxiliary verbs) and full verbs, stating that this division is “well motivated for Modern English”. A similar view is held by e.g. Denham and Lobeck, who also recognize three separate parts of speech – namely auxiliary verbs, modals and (lexical) verbs (145). The non-verbal status of modals was also recognized by Emonds, and others. However, the division presented in this paper is not shared by all scholars. For example, Huddleston and Pullum do not list modal verbs as a separate category, but include them into a group of verbs in the introductory chapter (22). In the chapter focusing on verbs, they do, however, distinguish two basic “subtypes” of verbs – lexical verbs and auxiliary verbs acknowledging their different morphological and syntactic properties (74).²

A frequently mentioned argument of linguists opposing the division of modals vs. verbs is the fact that modal verbs can express some verbal categories – such as tense. However, this view is not sustainable. First, modals in English are not productive in expressing the tense (see *must*, which cannot express past tense). Second, the past tense with English modals (*would* or *could*) does not frequently refer to the past at all, but has other functions – such as politeness. Third, the fact that some modals in English share this property with lexical verbs does not prevent them from forming a separate part of speech. Different

parts of speech can share some qualities – for example nouns and adjectives can express gender in Czech, nouns and pronouns can both express number in English, etc. It is also often claimed that modals combine with the VP complement to form a predicate, and therefore they must be verbs; this, however, is erroneous. Determiners also combine with nouns to form subjects and objects, but are not considered to belong among nouns. Another frequently mentioned argument against the independent status of English modal verbs is the fact that modals belong to a category of verb in some other languages (e.g. in Czech, where modals exhibit verbal properties). Any argument based on the analysis of modals in other languages is not valid either, since the division of words into parts of speech can vary from language to language – for example, Czech does not categorize determiners as a separate part of speech, whereas English does.

4. Modals vs. Lexical Verbs in German

The same diagnostics as in section 3 will be applied to the analysis of German modal verbs *mögen*, *müssen*, *sollen*, *wollen*, *wissen*, *dürfen* and *können*. Since English and German evolved from the same proto-language, modals in both languages developed from the same group of verbs – namely from preterite-presents. This also explains, in the same way as in English, the two most salient **morphological peculiarities** German modals demonstrate, namely the lack of agreement in the 1st and 3rd person singular and the ablaut in the whole singular paradigm. Similarly to English, the present forms of modals developed from the past forms. Compare the present paradigm of German modals and strong verbs as shown in (18), which shows that the present paradigm of modals copies the past paradigm of strong verbs.

(18) MODAL VERBS

Present paradigm

ich darfø

du darfst

er darfø

LEXICAL VERBS

Present paradigm

ich breche

du brichst

er bricht

Preterite

ich brachø

du brachst

er brachø

Since these changes originated centuries ago and do not have any impact on the system as a whole, they are irrelevant from the perspective of the synchronic analysis of present-day German.

Contrary to the English modal verbs, modals in German appear in all **forms** typical for verbs, namely in the infinitive, in the past form, and in the past participle (Particip I) as well as in the present participle (Particip II), although the last form is not productive and is probably reserved for idiosyncratic uses – see examples in (19).

- (19) INFINITIVE: *müssen, sollen, wollen*
PAST: *musste, sollte, wollte*
PAST PARTICIPLE: *gemusst, gesollt, gewollt*
PRESENT PARTICIPLE: *?wollende*
as in *nicht enden wollender Regen*
*a not willing to end rain

In terms of their **subcategorization**, German modal verbs as a group can subcategorize for a variety of phrases. Needless to say, however, not all modals subcategorize for all types of phrases. This is similar to lexical verbs, each of which tolerates a different subcategorization set. Contrary to English, however, German modals can subcategorize for a NP, VP, PP, or a clause – see examples (20).³

- (20) a. NP: *Ich kann_{NP} [das Lied] auswendig.*
*I can the song by heart.
b. VP: *Ich muss_{VP} [gehen].*
I must go.
c. PP: *Ich muss_{PP} [ins Stadtzentrum].*
*I must in the city centre.
d. Clause: *Ich möchte_C [dass wir Freunde sind].*
*I want that we are friends.

In terms of **the distribution** of German modal verbs, contrary to English modals, they do appear in the same positions as lexical verbs – compare the examples below demonstrating the behaviour of modal verbs, auxiliary verbs and lexical verbs in statements (21), in the topicalization of a sentence member other than a subject (an adverbial in this case) exemplified in (22), in a negative sentence (23), in a question (24) and in a subordinate clause (25).

- (21) a. *Er **will** heute arbeiten.*
He will today work.
b. *Er **hat** heute gearbeitet.*
He has today worked.
c. *Er **arbeitet** heute.*
He works today.
- (22) TOPICALIZATION
a. *Heute **will** er arbeiten.*
b. *Heute **hat** er gearbeitet.*
c. *Heute **arbeitet** er.*
- (23) NEGATIVE SENTENCE
a. *Er **will** nicht arbeiten.*
b. *Er **hat** nicht gearbeitet.*
c. *Er **arbeitet** nicht.*

(24) QUESTION

- a. Was **willst** du heute machen?
- b. Was **hast** du heute gemacht?
- c. Was **machst** du heute?

(25) SUBORDINATE CLAUSE

- a. Ich weiß nicht, ob er heute arbeiten **will**.
- b. Ich weiß nicht, ob er heute gearbeitet **hat**.
- c. Ich weiß nicht, ob er heute **arbeitet**.

As examples (21)–(25) above demonstrate, modal verbs, auxiliaries and lexical verbs in German occupy identical positions in various syntactic contexts. Furthermore, as mentioned, they exhibit other verbal properties such as verbal subcategorization and verbal forms, and therefore they should be classified as verbs. As far as the conception of modal verbs in German grammar books is concerned, similarly to the division here, Helbig and Buscha do not recognize modal verbs as a separate part of speech, but consider them as a “subclass” of verbs.

Diewald (51) maintains that based on the syntactic criteria, modal verbs do not constitute a separate category from verbs, adding that there is no syntactic property that would be shared by all modal verbs and which would not be simultaneously demonstrated by lexical verbs. Frequently mentioned properties such as the absence of the imperative form or the passive voice are ascribed to the semantics of the modal verbs; i.e. modal verbs are stative verbs, and similar defects are found with other (stative) lexical verbs as well. Moreover, Diewald provides an example showing that even modals in German do sometimes form imperatives – see for example (26).

- (26) *Wollt es, dann könnt ihr es!*
Want it, then you can (do) that.

Interestingly, modal verbs form the so-called *Ersatzinfinitiv*, i.e. when they are used in preterite with an infinitive of a lexical verb, they appear in the infinitive instead of the past participle form as exemplified in (27a), in comparison with (27b) where a modal verb is used without a verb complementation. However, similarly to the previous point, this is not an exclusive property of modal verbs but also occurs with other verbs such as *brauchen*, *lassen*, and *sehen*; see example (27c).

- (27) a. *Sie hat es machen können.*
She could do it.
b. *Sie hat es gekönnt.*
c. *Sie hat ihn kommen sehen.*

The often mentioned inability of the modal verbs to subcategorize for a *zu*- infinitive (a counterpart of the English *to*- infinitive), is again not a property characteristic of only modals. Some other lexical verbs behave in the same way – compare examples (28a) and (28b), showing a modal and a lexical *gehen*.

- (28) a. *Ich muss einkaufen/*einzukaufen.*
b. *Ich gehe einkaufen/*einzukaufen.*
I must/go shopping.

In this respect, Diewald claims that modals behave like lexical verbs. However, she adds that the verbal properties of German modals are reserved for their deontic use only (55). According to her and others,⁴ epistemic modals are auxiliaries since they exhibit certain gaps in the system – i.e. they cannot form predicates themselves or cannot appear in non-finite forms.

However, Reis disagrees, claiming that modal verbs in German are pure verbs (and not auxiliaries), regardless of their use. According to her, the reasons why epistemic modals appear predominantly in a restricted number of tenses (namely present or subjunctive) are purely semantic, i.e. epistemic modals reflect the time of utterance. Furthermore, she adds that epistemic modals can appear in non-finite forms especially in periphrastic structures of conditional clauses, though she admits that they are rather rare – see example (29) provided by her.

- (29) *Nach allem, was ich weiß, hätte er dann zu Hause sein müssen.*
As far as I know, he must have been at home then.

In German linguistic literature, there seems to be a general agreement on the status of the deontic modals, which, as has been shown, demonstrates the properties of lexical verbs. It is the epistemic use of modal verbs in German that causes some scholars to categorize them as auxiliaries. Yet, despite the fact that epistemic uses of modal verbs in German may demonstrate some deficiencies in the paradigm in comparison to their deontic counterparts, they still exhibit an overwhelming majority of verbal properties, and therefore should be considered as verbs (although as more peripheral). The defects connected with some functions of modal verbs in German cannot be at all compared to the behaviour of modal verbs in English, which show a full range of morphological and syntactic properties that are different from lexical verbs.

5. Concluding comments

Using morphological and syntactic criteria, this paper aimed to show that central English modal elements such as *must*, *can*, and *will* are not verbs but form a separate part of speech. As far as German modal verbs are concerned, their epistemic uses may demonstrate some gaps in the system. Despite this, they are to be classified as verbs in line with the general principle of economy of description.

Notes

¹ English grammar manuals frequently list a third type of distinguishing property – namely the phonological level (more precisely stress placement), for example in the pair *'increase* vs.

in'crease. However, since this type of distinction is not productive in English, this criterion will not be considered in this paper.

² Another interesting paradox can be found with structures such as *have to*. This expression is often called a semi-auxiliary, as in Quirk et al. (137). When considering its syntactic properties, it behaves like **a verb** (such as *try to*); therefore there is no reason to call it an auxiliary. On the other hand, central modals (*can, must*, etc.) should not be called modal **verbs** (the term *modal auxiliaries* may be more appropriate) – this paper uses the neutral term *modals*. On the other hand, it is well-justified to call the perfective *have* an auxiliary, since it does exhibit auxiliary properties; namely it inverts in a question or appears in question tags – unlike *have* in the *have to* structure.

³ Durbin and Sprouse argue that the variety of subcategorization is reserved only for German deontic modal verbs – epistemic modals, on the other hand, exhibit only verbal complements.

⁴ Durbin and Sprouse claim that German modals are not full verbs (for both their deontic and epistemic uses). However, they are not prepared to analyze them as auxiliaries, and at the same time they are reluctant to introduce a new category for them.

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