IF YOU MUST KNOW …
LIFE OF MODAL VERBS AFTER MODALITY

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Abstract: Drawing on data from the Omnia Slovaca IV Maior corpus, the paper presents a case study of the Slovak structure C1[*Keď/Ak už* SUBJ *musieť* INF… 'if/when already SUBJ must INF'] C2[(then) (at least) …] when it is used as a pragmatic modal construction (PMC) in the sense, as is customary in Construction Grammar (CxG). In CxG, the term "construction" is used for a form-function unit that is likely to be stored in a speaker's mental repository of words, idioms, recurrent sequences, and semi-fixed patterns (cf. Goldberg 2006). Sarcastic use of modal verbs in these cases proves the notorious ambiguity of modal verbs which are often used in utterances with specific pragmatic effects. Within given structures, the former modal meanings of the modal verb have receded and have been lost to peripheral pragmatic meaning with its illocutionary function very close to a complaint or a reproach. To identify intra-clausal and cross-clausal associations of the patterns under scrutiny, statistical tests applied in covarying-collexeme analysis will be applied to reveal which filler items (in terms of grammatical and lexical features functioning as constructional elements) contribute to the degree of its entrenchment.

Keywords: modal verb, necessity, Slovak, Construction Grammar, pragmatic modal construction, allostructions, illocutionary function

Highlights:
- Constructional account for the Slovak conditional clauses with sarcastic use of the modal verb functioning as the pragmatic modal construction.
- Distinguishing the meaning of the general construction and the meaning of the allostructions with deontic, circumstantial, internal and pragmatic meaning.
- Enriching theory of modality with the distinction between semantics and pragmatics of modal verbs.
- Statistical testing the inter-clausal associations in C1 and cross-clausal associations between C1 and C2 comprising semantic value of the modal verb with regard to person and tense of modal verb, aspect and semantic type of infinitive complement expressed in C1 and illocutionary function expressed by C2.
- Revealing the indicators of pragmatic modal construction which support the degree of its entrenchment.

1. INTRODUCTION

The present research applies usage-based Construction Grammar (CxG) and Construction Pragmatics (CxP) (cf. Wen 2022) as its theoretical framework.

Following Goldberg (2013, p. 17), constructions are defined as form-meaning pairings at different levels of abstraction displaying different degrees of idiomaticity, ranging from fully substantive to fully idiomatic patterns.

The notion of "construction" will be applied to structures with modal verbs. In Cappelle and Depraetere (2016a, 2016b), it is argued that a modal verb and the immediate context in which it occurs – one or more words to the left and/or to the right of it – may often be considered a construction. Modal expressions have recently gained serious interest within usage-based, constructionist frameworks (see e.g. Hilpert 2016, Hohaus – Schulze 2020, Depraetere et al. 2023, Daugs – Roberts 2024, etc.). Nevertheless, it has been discussed whether treating modal verbs as constructions adds any substance to understanding their intricacies and modality as such.

Modal verbs are notoriously ambiguous with regard to the different subtle semantic values they can express (see, among many others, Ruppenhofer – Rehbein 2012; Marasovic et al. 2016) and can be used in utterances with often specific pragmatic effects (see, for instance, Leech 2014, Gillmann 2024, etc.). One may ask whether modal verbs as such have a meaning by themselves or whether their meaning is determined by the lexical and grammatical environment they appear in. The aim in the present paper is to address this issue by looking at the use of the Slovak modal verb *musieť* 'must' in conditional clauses in which the given modal verb is developing new patterns of use. This raises the question whether the status of *musieť* as a modal verb is also changing. I argue that the modal verb is going through a process of post-modal pragmaticalization and constructionalisation[1] in these cases, and that its meaning in this construction cannot be viewed as a special post-modal meaning of the modal verb per se, but it is linked to the more complex conditional clause construction.

2. PRAGMATIC MODAL CONSTRUCTION (PMC)

The idea that post-modal meanings often come into existence as a part of constructions has been discussed in many theoretical studies (e.g. de Haan 2012, Daugs 2020, Leclercq 2022, 2024, etc.)[2]. Drawing on data from the Omnia Slovaca IV Maior corpus, the present paper presents a case study of the Slovak structure *Keď/*

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[1] Pragmatic reinforcement is usually associated with the early stages of grammaticalization (Hopper – Traugott 1993). The question whether the emerging pragmatic usages of original modals manifest the change in the modal-postmodal interval or should be treated as different layers of modality and more elusive modal meanings is still under discussion (see, e.g., Celle 2018).

[2] The idea that the collocational profiles of modals give us direct insights into their primary modal and secondary grammaticalized meaning potential has been discussed in several theoretical studies (e.g., in Flach 2020, Hilpert – Flach 2020). However, collocational profiles "do not necessarily capture complete constructions" (Cappelle – Depraetere 2016c, p. 90).

Ak už SUBJ musieť INF…, (*tak*) (*aspoň*)… 'if/when already SUBJ must INF…, (then) (at least)…', as used in example (1):

(1) *Keď už musíte niečo vypiť, tak dajte prednosť prírodnému vínu a vyhnite sa kalorickému pivu.*
'If you must drink something, choose natural wine and avoid caloric beer.'

Without contextual clues, the given structure oscillates between the following interpretations:

a) some external force (person or institution) imposes on you the obligation to drink something,

b) situation or existing circumstances impose on you the obligation to drink something,

c) your internal need imposes on you the obligation to drink something.

Within the first interpretation, deontic modality is at play. Deontic modality, usually classified as a subdomain of participant external modality, identifies compelling circumstances external to the participant as some person(s), often the speaker, and/or some social or ethic norm obliging the participant to engage in the state of affairs (van der Auwera – Plungian 1998, p. 81).

The second interpretation adheres to participant-external modality, labelled here as circumstantial modality. Within the domain of participant external modality, there is a sub-distinction based on the nature of source that impinges on the actor. The term "circumstantial modality" refers to circumstances that are external to the participant, if any, engaged in the state of affair and that make this state of affairs necessary (van der Auwera – Plungian 1998, pp. 80 – 81).

The third interpretation represent a kind of modality labelled as "participant-internal modality" (van der Auwera – Plungian 1998, p. 80). It relates to necessity internal to a participant engaged in this state of affairs. In this case, the pull on the actor comes from their own psyche.

A similar classification has been adopted in research on Slovak modal verbs (cf. Ivanová 2017). Nevertheless, in many cases the former modal meanings of the modal verb have receded and have been lost to peripheral pragmatic meaning with its illocutionary function very close to a complaint or a reproach (examples 2 and 3):

(2) *Aspoň doobeda (nech je ticho), keď už večer musia všetci vŕtať a vrieskať!*
'Let it be quiet at least in the morning, if all people must drill and scream in the evening!'

(3) *Keď už musíš robiť striptíz v obývačke, mohla by si aspoň zatiahnuť závesy.*
'If you must do a striptease in the living room, you might at least pull the curtains.'

One of the main questions addressed in this paper is whether given patterns are employed with regard to the morpho-syntactic environment in which the modal verb is used. Based on pre-empirical intuition, the assumption is that this pattern functions as a special type of Pragmatic Modal Construction (PMC) which prototypically consists of two clauses that will be referred to as C1 and C2 in the following (which can be considered their preferential order).

On the formal side, the given PMC can be described as a phrasal pattern consisting of construction-specific invariant lexical/phonological elements *keď/ak už musieť INF* in C1 and optional *(tak) (aspoň)* in C2. The pattern combines a subordinate conditional connector *keď, ak* 'if' with the particle *už* 'already'[3] and modal verb *musieť* 'must' with infinitive predicate. The clause slot for infinitive phrase is optional so that it is possible to distinguish between what can be referred to as elided C1 and full C2, depending on whether the infinitive slot is filled or not. In matrix clause C2, conventionalized devices are used to prototypically express directive function. The illocutionary profile of C2 is supported by particle *aspoň* 'at least' which is typically a part of the matrix clause.

Pragmatic use of the modal verb within this construction can be described as a special type of post-modal pragmatic meaning close to complaint, thus representing an example of speech act modality (Sweetser 1990). Complaints are generally realized by means of the following strategies proposed by Olshtain & Weinbach (1988): 1. below the level of reproach, 2. expression of annoyance and disapproval, 3. explicit complain, 4. accusation and warning.

The presence of clausal connectors *keď/ak* signals that this bipartite structure instantiates the structure labelled as if-conditionals which are said to attract modality statistically significantly above average (cf. Gabrielatos 2019). Within this construction, proposition *p* expressed in C1 encodes the propositional content, evaluated as negative by the speaker, however, it is signalled that the given state of affairs has to be accepted (in the sense of "nothing can be done") (cf. Karlík 1998, pp. 234 – 235). In such a case, the speaker may attempt to minimize the negative consequences of the event described by the proposition *p* by expressing an alternative proposition *q*.

The pragmatically motivated necessity is coded by the modal verb *musieť* 'must'. In case of direct complaints, the addressee is held responsible for the perceived offence and is expected to acknowledge or change the undesirable state of

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[3] The status of given expression as an adverb or a particle is disputable, depending on the linguistic traditions and their approach to delimitation of adverbs and particles as independent word classes. In Slovak, the original meaning of *už* 'already' is that of temporal adverb expressing that an event occurred earlier than expected, thus often conveying surprise, astonishment. These evaluative aspects of meaning may prevail within the particular contexts so that the unit loses its status of temporal adverb in favour of evaluative particle which seems to go well with the construction and its tendency to mark a negative speaker's stance and disalignment.

affairs. In case of PMC, the presence of necessity modal verb gives rise to a mitigated complaint. However, as opposed to hedged performatives (Fraser 2010), the mitigation procedure is a sort of ironic manoeuvre: the referential content (negative evaluation of action within the field of participant´s responsibility) and the locutionary content of the utterance (necessity modal which decreases the responsibility of the participant for the action) are discordant. It can be referred to as ironic hedging – the meaning intended by both the particle and the modal verb is opposite of the true situation: the meaning that a speaker implies differs from the meaning that is conventionally expressed by these constructional elements. By uttering it, the speaker aims at preventing potential detrimental effects on the hearer (by usage of necessity modal verb) but also tries to guarantee the achievement of his or her communicative goals (signalled by directive act expressed in C2).

The usage of particle *už* gives rise to mirativity effect which originates from the semantics of originally aspectual *už* in Slovak (the term is due to König 1991). In case of aspectual *už*, the speaker asserts that it is raining and indicates that there is alternative proposition – that it still is not raining. The contribution of *už* is to restrict this alternative proposition:

Neprší… 'It is not raining…' = no inference,

Už neprší… 'It is not raining any more…' = it isn't the case that it still is raining.

In PMC, the particle invites the inference about the failure of expectation:

Keď musíš piť kávu… 'If you must drink coffee…' = no inference,

Keď už musíš piť kávu… 'If you insist on drinking coffee…' = it isn´t the case that you don´t have to drink coffee.

Sarcastic or ironic interpretation cancels the inference invited by particle *už* in the construction (= it is the case that you don´t have to drink coffee).

The question is how to differentiate PMC from other structures with deontic, circumstantial and internal modality.

In the case of deontic necessity, the person, authority, convention, or whatever from whom the obligation is understood to emanate is referred to as the deontic source (Huddleston – Pullum 2002, p. 178), as illustrated in example (4):

(4)   *Keď už musím do pracovného tábora, dajte mi možnosť zárobku.*
      'If I have to go to a work camp, give me an opportunity to earn some money.'

In the case of circumstantial necessity, it is not an obligation imposed by a deontic source, but simply force of the circumstances that are at play, as in example (5):

(5)   *Ak už musíte prekonať horský potok či bystrinu, majte na pamäti, že sú domovom mnohých živočíchov.*
      'If you absolutely have to cross a mountain stream or gorge, keep in mind that they are home to many animals.'

The internal necessity is subjective, and it originates in internally motivated compulsion, i.e. compulsion that is not influenced by the will of the speaker.

(6) *Ak už musíš na niečo myslieť, tak mysli na to.*
    'If you have to think about something, think about this.'

Two parameters are important in these cases: source of necessity and the will of the participant performing the action. Deontic and circumstantial modality have the external source which provides the basis of the obligation. In cases of internal modality, necessity to carry out the action originates from internally motivated compulsion which cannot be influenced or fully regulated by the will of the participant.

Pragmatic usage of modals hinders the source of the action to be external – similarly to internal modality, however, the impulse or proneness to perform the action is understood as being under the control of the participant who carries out the action willingly. Willingness to perform the action can be understood as the propositional content condition for the speech act complaining (the complainee must be responsible for the state of affairs described in the proposition).

To identify the cases of PMC, it is crucial to identify signals of irony called ironic clues. Utsumi (2000. p. 1787) classifies all the signals into two categories: verbal and non-verbal. The category of verbal signals encompasses adjectives (e.g. *excellent*, *fantastic*), adverbs (e.g. *surely*, *really*, *absolutely*), metaphors, hyperbole, exclamations (e.g. *Oh!, God!*), prosodic paralinguistic signals (e.g. accent, intonation, nasalization), etc. Obviously, for written texts, non-verbal and prosodic markers are not a relevant category. The ironic clues in PMCs appear in many different forms ranging from lexical and syntactic to stylistic.

The range of lexical signals in the PMC varies from verbs with pejorative component, to various phrases and idioms added to the ironic utterances to enhance their ironic effect. The examples below (from 7 to 11) illustrate this point.

(7) *Keď už musí mudrovať, tak nech si ostane vo Fun rádiu.*
    'If he has to wise up, let him stay on Fun Radio.'

In example (7), the pejorative verb *mudrovať* 'wise up' is an ironic signal whose presence overtly points to the ironic nature of the entire utterance. The similar status can be assigned to the pragmatic dative particle *si* in example (7). In Fried (2011), it is referred to as distancing dative of empathy, which is speaker-centred, since it presents the speaker´s attitude toward the grammatical subject´s reported self-interest, but it also puts a distance between himself and the subject´s activities. The speaker essentially rejects someone else´s self-interest, recasting it as excessive self-indulgence.

In example (8), the ironic interpretation is triggered by the pejoratively used adverb *trápne* 'embarassingly', e.g.

(8) *Keď už musíte všade trápne vyťahovať RPS, aspoň si ustáľte prezývku.*
'If you have to embarrassingly trot out RPS everywhere, at least settle on a nickname.'

Unlike lexical markers, there were only several ironic utterances in the PMCs in which the presence of syntactic and stylistic signals was detected. Stylistic clues include the usage of hyperbole (example 9) and similes (example 10), e.g.

(9) *Ak už musíte, pán profesor, rýpať do bolestivých vecí, aby ste dokázali svoju vševedúcnosť, radšej by som rozpovedala všetko sama.*
'If you, Professor, have to nitpick painful things to prove your omniscience, I´d rather tell it all myself.'

(10) *Ale keď už musíte urážať ako malé deti, nemôžete len seba konkrétne! Musíte uraziť celú skupinu ľudí.*
'But if you must take offence like little children, you can´t just insult yourself in particular! You have to insult a whole group of people.'

In example (9), the hyperbolic noun *omniscience* adds to the ironic nature of this statement. In example (10), the simile *take offence like little children* enhances the ironic effect of the utterance together with hyperbolic exaggeration in the following clause.

Among syntactic clues, exclamatory constructions or ironic questions, as in example (11), can be counted, e.g.

(11) *Keď už musíme niekoho kritizovať, ohovárať alebo jednoducho „haniť"', nemohli by sme to urobiť takto, trochu kultúrnejšie alebo aspoň originálnejšie?*
'If we have to criticize, slander or simply "denigrate" someone, couldn´t we do it this way, a little more culturally or at least more originally?'

Due to their strong overlap in form and function, I will conclude that the structures illustrated in examples (7) – (11) are variants of the same overarching construction, i.e., allostructions in the sense of De Vaere et al. (2020), Zehentner (2023), and most recently Gillmann (2024). Allostructions are defined as "two or more grammatical constructions with (nearly) synonymous function and very similar form" (Nesset – Janda 2023, p. 70). Despite their similarity in form and function, these allostructions may differ in terms of their "conventionalized pragmatics" (Finkbeiner 2019). Due to such illocutionary-structural properties, this type of clause is especially suitable for the analysis of constructions.

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3. DATA AND INVESTIGATION

Using the query [lemma="keď|ak"][lemma="už"][]{,2}[lemma="musiet"'] [tag="VI.*"], a total of 2996 tokens was extracted from the Omnia Slovaca IV Maior Beta, from which a random sample of 300 tokens was drawn. 43 irrelevant tokens were discarded, leaving a data set of 257 tokens for statistical analysis.

A construction has minimally two components: meaning and form, however, following Croft (2001) at least six properties can be identified: for meaning it is semantics, pragmatics, discourse functions, and for form syntax, morphology and phonology, or a set of features. Therefore, several form and meaning properties have been annotated in the present sample. Among meaning properties, it is modal value of the modal verb (MV) and semantic type of infinitive predicate (INF) in C1 and illocutionary function in C2. Among form properties, it is person and tense of modal verb and aspectual value of infinitive predicate.

Table 1: Variables coded in dependent clause C1

Factor	Levels
MODAL VALUE OF MV	deontic, circumstantial, internal, pragmatic
SEMANTIC TYPE OF INF	state, activity, achievement, accomplishment
PERSON OF MV	1st, 2nd, 3rd
TENSE OF MV	present, past, future
ASPECT OF INF	imperfective, perfective

Table 2: Variables coded in matrix clause C2

Factor	Levels
PRAGMATIC VALUE	directive, desiderative, assertive, volitive, interrogative

In constructions with *keď*, 931 instances of the given construction were found with 312 item fillers and with 209 unique lexical fillers for infinitive predicate. In constructions with *ak*, 601 instances of the given construction were found with 204 item fillers and 128 unique lexical fillers for infinitive predicate. The results show that speakers have many choices to fill the lexical filler slots in C1. At the same time, no pairings of modal verb and lexical predicate were used significantly more often than could be expected by chance which underscores the high degree of variability and productivity of the lexical filler slot in the investigated construction.

Subsequently, the p-values of the Fisher-Yates Exact test were used to "gauge the degree of attraction" (Schmid – Küchenhoff 2013, p. 535) between a construction (e.g. the Modal Construction) and constructional elements (Filler Types in C1 and C2). Note that Stefanowitsch and Gries originally intended covarying-collexeme analysis to be applied to lexemes in constructions, stating that it can be used to

investigate "cooccurrence between three signs (lexeme1, lexeme2, and construction)" (Stefanowitsch – Gries 2005, p. 10). As Hoffmann et al. (2019) have demonstrated, however, covarying-collexeme analysis can easily be applied to more abstract constructional slots as well (e.g. Filler Types). The associations were described as attraction or repulsion on the basis of real and expected frequencies of investigated items. They were calculated by p-values of Fisher-Yates Exact test and measuring probability of A and B both occurring $P(A \cap B)$[4].

The following two-way interactions were tested to reveal a more detailed picture of the Slovak constructional network:

1) Inter-clausal Filler type associations in C1: Modal value & Person; Modal value & Tense; Modal value & Semantic type of predicate; Modal value & Aspect of predicate

2) Cross-clausal Filler type associations in C1 and C2: Modal value & Illocutionary function of matrix C2.

Table 3 shows the 'input' of an analysis as a two-by-two distribution table, using the frequencies found in the annotated data (the totals are relevant for calculating expected frequencies).

Table 3: Example of a two-by-two table as used in analysis

	pragmatic in C1	¬*pragmatic* in C1 (deontic + circumstantial + internal in C1)	
2nd person in C1	66 (frequency of *2nd person* in C1 and *pragmatic* in C1)	25 (frequency of *2nd person* in C1 and ¬*pragmatic* in C1)	91
¬*2nd person* in C1 (*1st and 3rd person* in C1)	31 (frequency of ¬*2nd person* in C1 and *pragmatic* in C1)	135 (frequency of ¬*2nd person* in C1 and ¬*pragmatic* in C1)	166
	97	160	257[5]

4. RESULTS AND INTERPRETATION
4.1. MODAL VALUE & PERSON

Table 4 shows the results of the analysis of inter-clausal association between MODAL VALUE and FILLER TYPE PERSON in the annotated data.[6]

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[4] Despite critical comments, it is believed that covarying-collexeme analysis is one of the best tools currently available for describing interdependence between constructional slots, a fact that is also reflected in its widespread use in constructional literature (cf. Horsch 2023, pp. 718 – 719).

[5] Number of annotated structures.

[6] Statistically relevant values can be interpreted as attraction if the observed frequency is higher than expected, and as repulsion if the observed frequency is lower than expected. Statistically irrelevant

Table 4: Statistical analysis results of inter-clausal associations between MODAL VALUE and FILLER TYPE PERSON

Filler	Modal value	Filler frequency	Modal value frequency	Observed freq. Filler + Modal Value	Exp. freq.	p-value	Significance	Relation
1st	Deontic	74	34	12	9.8	0.0712	Not sign.	n.v.
1st	Circumstantial	74	114	47	32.6	0.0001	Sign.	Attraction
1st	Internal	74	12	9	3.6	0.0009	Sign.	Attraction
1st	Pragmatic	74	97	6	27.8	0.00001	Sign.	Repulsion
2nd	Deontic	91	34	1	11.9	0.00001	Sign.	Repulsion
2nd	Circumstantial	91	114	22	40.1	0.00001	Sign.	Repulsion
2nd	Internal	91	12	2	4.2	0.2229	Not sign.	n.v.
2nd	Pragmatic	91	97	66	34.3	0.00001	Sign.	Attraction
3rd	Deontic	92	34	21	12.1	0.001	Sign.	Attraction
3rd	Circumstantial	92	114	45	40.7	1	Not sign.	n.v.
3rd	Internal	92	12	1	4.3	0.0609	Not sign.	n.v.
3rd	Pragmatic	92	97	25	34.7	0.0107	Sign.	Repulsion

The results indicate the existence of four inter-clausal associations: Circumstantial modality & 1st person in C1, Internal modality & 1st person in C1, Pragmatic modality & 2nd person in C1, and Deontic modality & 3rd person in C1.

PMC strongly associates with second person which is the major indicator of the pragmatic function of the modal verb within this construction. The frequency distribution of 2nd person modals in this construction is higher than would be normally expected which can be proved by statistic calculations.

Using the query [lemma="keď|ak"][lemma="už"][word="musíš|musíte"] [tag="VI.*"], a total of 455 tokens was extracted.

Table 5: Contingency table with the frequencies of Wfs (word forms) and Cxs (constructions)

	+Target word form	¬Target word form	
+Target Cx (PMC)	1. frequency of Wf in Cx (2nd person in PMC) = 455	3. frequency of Cx with other Wfs except for Wf (1st and 3rd person in PMC) = 1077	**1532**

values are described as non-valid (n.v.). A p-value of 0.05 (or 5%) is a common cutoff used to determine statistical significance.

¬Target Cx (other Cxs)	2. frequency of Wf in other Cxs (2nd person in other Cxs) = 563 192	4. frequency of other Cxs with Wfs except for Wf (1st and 3rd person in other Cxs) = 356 824 934	357 388 126
	563 647	356 826 011	357 389 658[2]

The Fisher exact test statistic value is < 0.00001. The result is significant at $p < 0.05$. The results show that 2nd person turns out to appear in given construction template significantly more often than could be expected by chance.

The preference of second person strongly reflects the pragmatic function of the construction as direct complaint. Direct complaints are face-threatening acts through which speakers make complaints about someone or something that is present in the speech act scene (Salmani Nodoushan 2007, 2008).

The usage of 1st or 3rd person in PMC thus represents a kind of deviation from the directive prototype. 1st person usually occurs in case of reportive evidentiality signalled by reportive markers (such as adverbs) so that the construction can be interpreted as mediated complaint, e.g.

(12) *... vraj, keď už musím viesť taký aktívny nočný život, nech mám aspoň ne-jakú ochranu.*
'... they say that if I must lead such an active night life, I should at least have some protection.'

Constructions with 3rd person function as indirect complaint (also known as griping) in which the responsible party or object of the complaint is not present during the interaction within which the speech act is performed, e.g.

(13) *Keď už musel byť beznádejne zaľúbený do niektorej z nich, nemohol si vy-brať horšie ako manželku Jamesa Maloryho.*
'If he had to be hopelessly in love with one of them, he couldn´t have cho-sen worse than James Malory´s wife.'

In case of indirect complaint, the complainee is not necessarily intended to change or improve the unsatisfactory situation (Clyne 1994). This fact explains why the matrix clause C2 in examples like (13) do not express directive function, merely pointing out an unsatisfactory situation.

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[7] Number of sentences in Omnia Slovaca IV Maior Beta.

4.2. MODAL VALUE & TENSE

Table 6 shows the results of the analysis of inter-clausal association between Modal value and Filler type Tense in the annotated data.[8]

Table 6: Statistical analysis results of inter-clausal associations between Modal value and Filler type Tense

Filler	Modal value	Filler frequency	Modal value frequency	Observed freq. Filler + Modal Value	Exp. freq.	p-value	Significance	Relation
Present	Deontic	235	34	27	31	0.015	Sign.	Repulsion
Present	Circumstantial	235	114	106	104.3	0.505	Not sign.	n.v.
Present	Internal	235	12	12	11	0.6072	Not sign.	n.v.
Present	Pragmatic	235	97	90	88.6	0.6492	Not sign.	n.v.
Past	Deontic	22	34	7	2.9	0.015	Sign.	Attraction
Past	Circumstantial	22	114	8	9.8	0.505	Not sign.	n.v.
Past	Internal	22	12	0	1	0.6072	Not sign.	n.v.
Past	Pragmatic	22	97	7	8.3	0.6484	Not sign.	n.v.

The results indicate the existence of one inter-clausal association, namely Deontic modality & Past tense. There were no significant results in the data with regard to Filler type & Tense with regard to pragmatic modality.

The only significant association concerns deontic usage which attracts past tense and repulses present tense. This fact proves that deontic necessity modals are used preferentially descriptively in this type of construction. The usage of past tense goes hand in hand with different illocutionary functions of the matrix clause which codes declarative (assertive) statements:

> (14) *Keď už musela ukázať žiacku knižku, bolo to vždy neochotne a so strachom v očiach.*
> 'Whenever she had to show her school record book, it was always reluctantly and with fear in her eyes.'

The data also bring the evidence of past tense used in PMC.

> (15) *Ak už musel osloviť inšpektora hneď, mal to urobiť zoči-voči, nie telefonicky.*
> 'If he insisted on addressing the inspector right away, he should have done it face-to-face, not over the phone.'

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[8] In the speech act of complaint, which is expressed in PMC, the speaker reflects or shows dissatisfaction, annoyance or rebuke because of a past or present action. Therefore, the analysis is focused on constructions with present and past tense of modals.

Past tense in C1 blocks the directive function in C2 as directives are illocutionary acts that have the purpose of committing the speaker to a specific course of action in the future. In this case, the function of the matrix clause C2 is to express an unfulfilled obligation or a sensible action that was neglected.

4.3. MODAL VALUE & SEMANTIC TYPE OF PREDICATE

Table 7 shows the results of the analysis of inter-clausal association between MODAL VALUE and FILLER TYPE SEMANTIC TYPE OF PREDICATE in the annotated data.

Table 7: Statistical analysis results of inter-clausal associations between MODAL VALUE and FILLER TYPE SEMANTIC TYPE OF PREDICATE

Filler	Modal value	Filler frequency	Modal value frequency	Observed freq. Filler + Modal Value	Exp. freq.	p-value	Significance	Relation
ACC	Deontic	40	34	4	5.3	0.6193	Not sign.	n.v.
ACC	Circumstantial	40	114	16	17.8	0.6056	Not sign.	n.v.
ACC	Internal	40	12	2	1.9	1	Not sign.	n.v.
ACC	Pragmatic	40	97	18	15	0.3749	Not sign.	n.v.
ACT	Deontic	132	34	22	17.4	0.1013	Not sign.	n.v.
ACT	Circumstantial	132	114	55	58.6	0.3823	Not sign.	n.v.
ACT	Internal	132	12	7	6.2	0.77	Not sign.	n.v.
ACT	Pragmatic	132	97	48	49.8	0.6997	Not sign.	n.v.
ACH	Deontic	37	34	1	4.9	0.0379	Sign.	Repulsion
ACH	Circumstantial	37	114	24	16.4	0.0075	Sign.	Attraction
ACH	Internal	37	12	1	1.7	1	Not sign.	n.v.
ACH	Pragmatic	37	97	11	14	0.3598	Not sign.	n.v.
ST	Deontic	48	34	7	6.3	0.8134	Not sign.	n.v.
ST	Circumstantial	48	114	19	21.3	0.5209	Not sign.	n.v.
ST	Internal	48	12	2	2.2	1	Not sign.	n.v.
ST	Pragmatic	48	97	20	18.1	0.6207	Not sign.	n.v.

The results indicate the existence of one inter-clausal association, namely circumstantial modality and semantic class of achievements. There were no significant results in the data with regard to Filler type & Semantic type of predicate with regard to PMC.

The one possible explanation for association existing between achievements and circumstantial modality is that achievements are incompatible with adverbs expressing that the referent of the subject NP participated intentionally in the

described eventuality (Piñón 1997, p. 282). This fact corresponds with circumstantial modality in which the source for the obligation is external so that the action cannot be performed intentionally, e.g.

(16) *Keď už musí umrieť aj nádej, nech naozaj umiera posledná.*
     'If even hope must die, let it indeed be the last to die.'

4.4. MODAL VALUE & ASPECT

Table 8 shows the results of the analysis of inter-clausal association between MODAL VALUE and FILLER TYPE ASPECT in the annotated data.

Table 8: Statistical analysis results of inter-clausal associations between MODAL VALUE and FILLER TYPE ASPECT

Filler	Modal value	Filler frequency	Modal value frequency	Observed freq. Filler + Modal Value	Exp. freq.	p-value	Significance	Relation
IPRF	Deontic	181	34	25	23.9	0.8404	Not sign.	n.v.
IPRF	Circumstantial	181	114	72	80.3	0.0277	Sign.	Repulsion
IPRF	Internal	181	12	9	8.4	1	Not sign.	n.v.
IPRF	Pragmatic	181	97	75	68.2	0.0674 (0.05) 0.0674 (0.1)	Not sign. Sign.	n.v. Attraction
PRF	Deontic	76	34	9	10	0.8404	Not sign.	n.v.
PRF	Circumstantial	76	114	42	33.8	0.0277	Sign.	Attraction
PRF	Internal	76	12	3	3.6	1	Not sign.	n.v.
PRF	Pragmatic	76	97	22	28.7	0.0674 (0.05) 0.0674 (0.1)	Not sign. Sign.	n.v. Repulsion

The results indicate the existence of one constructional preference, namely circumstantial modality & Filler type Aspect. Additionally, one more p-value threshold (0.1) was be used to differentiate between degrees of entrenchment[9]. It enables one to provide evidence for the existence of constructions and their degrees of entrenchment, understood as the hight degree with which the form-meaning pairing is repeated and learned regardless of where it falls along a scale ranging from relatively compositional to non-compositional (Nesset – Janda 2023, p. 70).

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[9] A p-value of 0.1 indicates that there is a 10% chance of observing the data if the null hypothesis is true. While not typically considered statistically significant at the commonly used significance level of 0.05 (5%), it suggests a weak or moderate evidence against the null hypothesis, or a trend.

The data show that perfective contextual aspect triggers circumstantial readings, whereas imperfective contextual aspect elicits pragmatic readings of modal verbs. However, association of imperfectivity with pragmatic reading is not a fully entrenched feature as it is relevant only at p-value 0.1.

This observation of association between circumstantial modality and perfective aspect is in accordance with Abraham's and Leiss' proposal (2008, p. xiii) that perfective aspect is compatible ('converges strongly') with root modality, i.e. deontic modals in a wider sense (deontic and circumstantial in presented terminology). The feature of perfectivity always includes the future-projecting features typical for deontic modals (Leiss 2008, p. 19). Due to the fact that narrowly understood deontic modals are preferentially used in past tense in this type of construction can be counted as a possible explanation why there is no correlation between deontic modal constructions and perfective aspect.

Imperfective PMCs are of two types. On the condition that PMC refers to ongoing acts, verb elements both in C1 and C2 are coded by imperfective grammatical aspect:

(17) *Ak už musíš jazdiť na tomto prekliatom zvierati, buď láskavo opatrná a nespi v sedle!*
'If you must ride this goddamn animal, please be careful and don´t sleep in the saddle!'

In structures with generic meaning, there is a grammatical aspect switch with perfective forms used in the matrix clause C2 and imperfective forms used in the subordinate clause C1:

(18) *Keď už musíte piť kávu, vždy si po nej vypite aspoň 0,5 L čistej vody.*
'If you must drink coffee, always drink at least 0.5 L of water afterwards.'

The discursive function of aspect was discussed in Hopper (1979). In his approach, the information in the discourse can be classified into foreground information and background information. The former relates to events belonging to the skeletal structure, and the latter provides support material that elaborates on or evaluates the event in the foreground. C1 in PMC can be understood as illocutionary background to directive function expressed in C2, therefore infinitive predicate in C1 preferentially takes the imperfective form. The background status of C1 in PMC will be closely discussed in chapter 4.5.

4.5. MODAL VALUE & ILLOCUTIONARY FUNCTION OF C2

Table 9 shows the results of the analysis of cross-clausal association between Modal value and Filler type Illocutionary force of C2 in the annotated data.

Table 9: Statistical analysis results of inter-clausal associations between MODAL VALUE and FILLER TYPE ILLOCUTIONARY FORCE OF C2

Filler	Modal value	Filler frequency	Modal value frequency	Observed freq. Filler + Modal Value	Exp. freq.	p-value	Significance	Relation
DIR	Deontic	129	34	7	48.6	0.0002	Sign.	Repulsion
DIR	Circumstantial	129	114	46	57.2	0.0057	Sign.	Repulsion
DIR	Internal	129	12	2	6	1	Not sign.	n.v.
DIR	Pragmatic	129	97	74	48.8	0.00001 (0.5) (0.01)	Sign.	Attraction
ASS	Deontic	85	34	15	11.2	0.1709	Not sign.	n.v.
ASS	Circumstantial	85	114	50	37.7	0.0013	Sign.	Attraction
ASS	Internal	85	12	9	4	0.0029	Sign.	Attraction
ASS	Pragmatic	85	97	11	32	0.00001	Sign.	Repulsion
DES	Deontic	26	34	5	3.4	0.3585	Not sign.	n.v.
DES	Circumstantial	26	114	13	11.4	0.5414	Not sign.	n.v.
DES	Internal	26	12	1	1.2	1	Not sign.	n.v.
DES	Pragmatic	26	97	7	9.7	0.2883	Not sign.	n.v.

As the results show, there were three statistically significant cross-clausal associations that constitute evidence for the following meso-constructions: Pragmatic modality in C1 & Directive illocutionary function in C2, Circumstantial modality in C1 & Assertive modality in C2, Internal modality in C1 & Assertive modality in C2.

The results show that a given structure may be part of stored expressions that conventionally trigger a specific implicature or a specific illocutionary force. In addition to the aforementioned classification of complaining presented in Section 2, a complaint may be realized by means of three additional strategies (DeCapua 1998): 5. request for repair, 6. justification, and 7. criticism. In case of investigated constructions, the directive act expressed in C2 can be viewed as a request for repair. It fully conforms to the fact that when a complaint is issued, a directive act may be implied or added (Trosborg 1995, p. 320). The author suggests that this involves an attempt to make the complainee repair the damage he/she caused. In case of PMC, the remediation of the problem is presented as a kind of "settling for less" (Nakanishi – Rullmann 2009) and any directive act expressed in C2 is evaluated as a minimal good outcome. This interpretation is often supported by using the evaluative *aspoň* 'at least' which is often expressed in the matrix clause:

(19) *Keď už musíš hádzať príspevky každých päť minút, tak si aspoň napíš nie-*
     čo vlastné.
     'If you have to publish posts every five minutes, at least write something
     of your own.'

Despite their subordinate structure, the clauses are often not integrated into a matrix clause, but occur independently, anticipating the speech act of the subsequent clause. Syntactic disintegration of C1 from C2 is driven by the background status of C1 and its pragmatic function, as mentioned in Section 4.4. In such cases, C1 turns into a syntactically independent parenthetical segment which is embedded within the matrix clause only formally, keeping an overt syntactic link to the matrix clause, yet semantically independent. Such structures are often subject to "conventionalization of the construction" (Constructionalization). A good example of such a fully idiomatic construction is the following structure used when one is answering a question that one does not want to answer because the information is personal, embarrassing, etc.

(20) *Keď už musíš vedieť, nemali sme deti, lebo nám žiadne nepovolili.*
     'If you must know, we didn´t have kids because they wouldn´t let us have
     any.'

Such insertions form a fertile space for managing local interactive tasks and shaping the participant framework. In examples like (20), C1 is anything but surplus to the interaction. It is exactly because of the existence of C1 that the negative content in C2 is not presented as being initiated by the speaker, but as a response to a hypothetical request by the listener (Gabrielatos 2020, p. 155). In such a way, the speaker conforms to the agreement maxim which runs as follows: "Minimize the expression of disagreement between self and other; maximize the expression of agreement between self and other." From functional point of view, parenthetical constructions can fulfil various interactive tasks, from interpersonal (managing the relationship between participants) to metalinguistic (commenting on language itself).
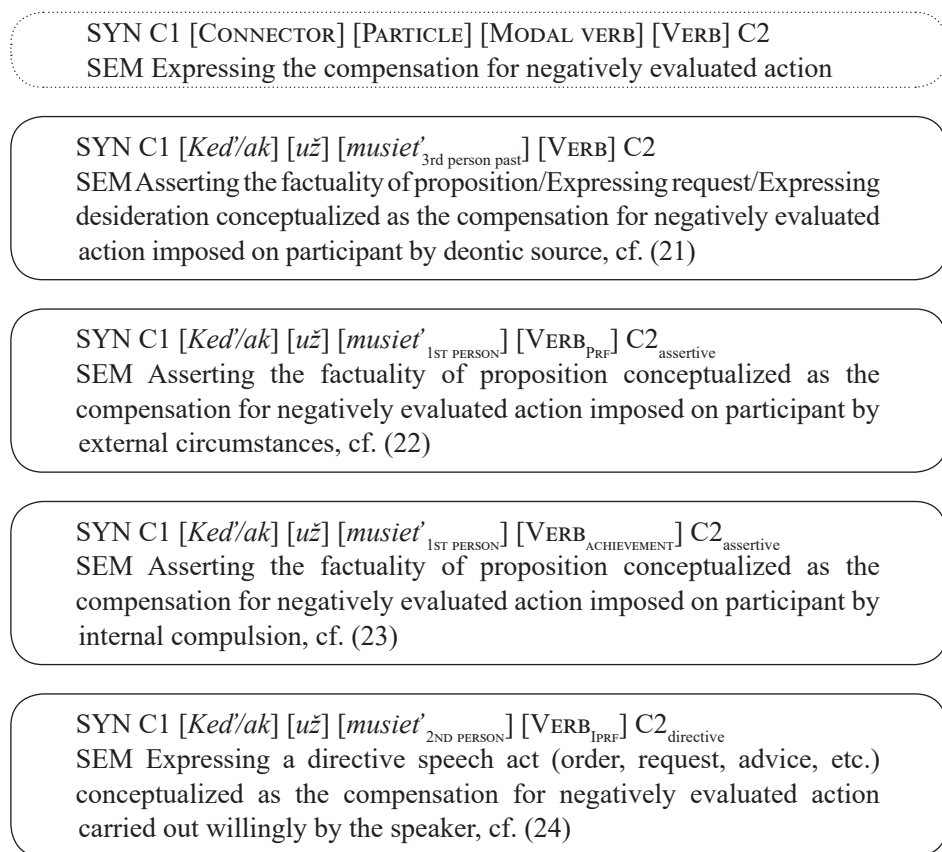
In such cases, it is not the content of the apodosis (formally coded by C2 expressing the logical consequent) that is contingent on the protasis (formally coded by C1 expressing the condition), but either the relevance of its uttering, or the wording/clarity of its content. This is illustrated in (20): the content of the C2 (not having any kids) is not contingent on the listener's knowledge as formally presented in C1; rather the protasis functions as a hedged introduction to the comment expressed in the apodosis.

5. CONCLUSION

Previous accounts of modal constructions differ in their views on whether to treat them as transparent syntactic structures consisting of a main and a subordinate clause or as semi-fixed patterns. The development of a pragmatic function presents an argument in favour of the latter interpretation.

Regarding the modal constructions focused on in this paper, diverging degrees of schematicity can be observed. Overall, four configurations were identified in the present paper that are located on the lower levels of the constructional network. They are highly specific; only their verb slot is variable. In addition, the analysis has revealed that there is a high formal overlap among the identified configurations. The constructions resemble one another in that they combine similar categorical slots, which are summarized at the highest node in Figure 1.

Figure 1: Modal macro-construction and its allostructions

SYN C1 [Connector] [Particle] [Modal verb] [Verb] C2
SEM Expressing the compensation for negatively evaluated action

SYN C1 [*Keď/ak*] [*už*] [*musieť*$_{\text{3rd person past}}$] [Verb] C2
SEM Asserting the factuality of proposition/Expressing request/Expressing desideration conceptualized as the compensation for negatively evaluated action imposed on participant by deontic source, cf. (21)

SYN C1 [*Keď/ak*] [*už*] [*musieť*$_{\text{1st person}}$] [Verb$_{\text{Prf}}$] C2$_{\text{assertive}}$
SEM Asserting the factuality of proposition conceptualized as the compensation for negatively evaluated action imposed on participant by external circumstances, cf. (22)

SYN C1 [*Keď/ak*] [*už*] [*musieť*$_{\text{1st person}}$] [Verb$_{\text{achievement}}$] C2$_{\text{assertive}}$
SEM Asserting the factuality of proposition conceptualized as the compensation for negatively evaluated action imposed on participant by internal compulsion, cf. (23)

SYN C1 [*Keď/ak*] [*už*] [*musieť*$_{\text{2nd person}}$] [Verb$_{\text{Iprf}}$] C2$_{\text{directive}}$
SEM Expressing a directive speech act (order, request, advice, etc.) conceptualized as the compensation for negatively evaluated action carried out willingly by the speaker, cf. (24)

> SYN C1 [*Keď/ak*] [*už*] [*musieť*] [Verb] ¦ C2_{assertive/expressive…}
> SEM Hedged introduction to the comment/rebuke…, cf. (25)

Modal construction with deontic modal:

(21) *Keď už musel za hranice vyjsť, používal obrnený vlak.*
     'When he had to go beyond the border, he used the armoured train.'

Modal construction with circumstantial modal:

(22) *Keď už musím zaparkovať do vysokého snehu, ujazdím sneh jazdou dva-
     krát trikrát dopredu a dozadu.*
     'When I have to park in high snow, I drive forward and backwards two or
     three times to make it smooth.'

Modal construction with internal (subjective) modal:

(23) *Keď už musím zahýbať žene, tak si odskočím trochu ďalej od domu.*
     'If I have to cheat on my wife, I don't do it on my doorstep/the further
     from home, the better.'

Pragmatic modal construction:

(24) *Ak už musíte mať na ráno palacinky, nepoužívajte na ne polotovar.*
     'If you must have pancakes in the morning, don´t use semi-finished pro-
     ducts.'

Parenthesis:

(25) *Deti nestačí natrtkať, aj sa o ne treba postarať, keď už musím byť taký
     vulgárny.*
     'It's not enough to spit out the kids/It's not enough to have sprogs, they
     also need to be taken care of, if I have to be so vulgar.'

PMC can be referred to as "illocutionary construction(s)" with particular formal, semantic and pragmatic features. This finding is in accordance with Searle (1975) who suggested that the forms with special grammar are idiomatic ways of accomplishing an illocutionary goal. The investigation proves that lexically and grammatically specific modal constructions can give rise to short-circuited pragmatic effects. In this case, the chunk *Keď/ak už musieť*_{2nd person} *Verb*_{imperfective} is immediately understood as an opening sequence to the following order.

Short-circuiting is in some respects similar to the process of conventionalisation that affects frequent invited inferences (cf. Traugott – König 1991). Treating modal

structures as stored sequences, particular grammatical and lexical features of items immediately help the hearer to determine which the semantic value of *musieť* is intended among a range of possible candidates. For further investigation, it would also be worthwhile to take filler types retrieved here as predictors of modal values in a multinomial regression model to see how well they classify (i.e., predict the actual use) the semantic value of particular modals in a different (but similar) corpus.

Conventional linguistic units (such as modal verbs) are semantically quite schematic and, therefore, the construals they impose upon the conceived scene and, in particular, upon aspects of the ground, are compatible with multiple actual interactive and interpersonal contexts in which speech acts are performed. Therefore, a single construction with such conventional units may be employed as a tool for achieving multiple and often quite diverse pragmatic effects in different circumstances (Kochańska 2018). Formal, semantic, and discourse features that define the pragmatic uses of modal verb *musieť* in analysed structures form the pattern representing the construction, which is conventionally tied to certain types of discourse settings and speaker-hearer expectations. In order to represent this construction, and its relationship to other, partially related, patterns with conventionalized values of the given modal verb, the present paper proposes a network representation in the form of contiguous functional spaces that overlap at the boundary between semantics of (deontic, circumstantial and internal) necessity and pragmatically motivated usage.

References
ABRAHAM, W. – LEISS, E. (2008): *Modality–Aspect Interfaces: Implications and typological solutions*. Amsterdam/Philadelphia: John Benjamins.
van der AUWERA, J. – PLUNGIAN, V. (1998): Modality's semantic map. In: *Linguistic Typology*, 2/1, 79 – 124.
CAPPELLE, B. – DEPRAETERE, I. (2016a): Introduction: Modal meaning in Construction Grammar [Introduction to special issue]. In: *Constructions and Frames*, 8/1, 1 – 6.
CAPPELLE, B. – DEPRAETERE, I. (2016b): Short-circuited interpretations of modal verb constructions. Some evidence from *The Simpsons*. In: *Constructions and Frames*, 8/1, 7 – 39.
CAPPELLE, B. – DEPRAETERE, I. (2016c). Response to Hilpert. In: *Constructions and Frames*, 8/1, 86 – 96.
CELLE, A. (2018). Epistemic evaluation in factual contexts in English. In: Guentchéva, Z. (ed.): *Epistemic Modality and Evidentiality in a Cross-Linguistic Perspective*. Berlin: Mouton de Gruyter, 22 – 51.
CLYNE, M. (1994): *Inter-cultural Communication at Work: Cultural Values in Discourse*. Cambridge: Cambridge University Press.
CROFT, W. (2001): *Radical Construction Grammar: Syntactic Theory in Typological Perspective*. Oxford: Oxford University Press.
DAUGS, R. (2020). Revisiting global and intra-categorial frequency shifts in the English modals: A usage-based, constructionist view on the heterogeneity of modal development. In: Hohaus, P. – Schulze, R. (eds.): *Re-Assessing Modalising Expressions: Categories, co-text, and context*. Amsterdam: John Benjamins, 17 – 46.

DAUGS, R. – LORENZ, D. (2024): A radically usage-based, collostructional approach to assessing the differences between negative modal contractions and their parent forms. In: *Corpus Linguistics and Linguistic Theory*. DOI: 10.1515/cllt-2024-0051.

DECAPUA, A. (1998): *Complaints: a comparison between German and English: Unpublished manuscript*. New York: Concordia College, English Language Center.

DE VAERE, H. – KOLKMANN, J. – BELLIGH, T. (2020): Allostructions revisited. In: *Journal of Pragmatics*, 170, 96 – 111.

DEPRAETERE, I. – CAPPELLE, B. – HILPERT, M. – DE CUYPERE, L. – DEHOUCK, M. – DENIS, P. – FLACH, S. – GRABAR, N. – GRANDIN, C. – HAMON, T. – HUFELD, C. – LECLERQ, B. – SCHMID, H.-J. (2023). *Models of Modals: From Pragmatics and Corpus Linguistics to Machine Learning*. Boston: De Gruyter.

FINKBEINER, R. (2019): Reflections on the role of pragmatics in Construction Grammar. In: *Constructions and Frames*, 11/2, 171 – 192.

FLACH, S. (2020): Beyond modal idioms and modal harmony: A corpus-based analysis of gradient idiomaticity in MOD + ADV collocations. In: *English Language and Linguistics*, 25/4, 1 – 23.

FRIED, M. (2011): The notion of affectedness in expressing interpersonal functions. In: Grygiel, M. – Janda, L. A. (eds.): *Slavic Linguistics in a Cognitive Framework*. Frankfurt am Mein: Peter Lang, 121 – 143.

GABRIELATOS, C. (2019): If-Conditionals and Modality: Frequency Patterns and Theoretical Explanations. In: *Journal of English Linguistics*, 47/4, 301 – 334.

GABRIELATOS, C. (2020): Conditionals, modality, and Schrödinger's cat: Conditionals as a family of linguistic qubits. In: Hohaus, P. – Schulze, R. (eds.): *Re-assessing Modalising Expressions: Categories, Co-text, and Context*. Amsterdam: John Benjamins, 141 – 172.

GILLMANN, M. (2024): Allostructions and stancetaking: a corpus study of the German discourse management constructions *Wo/wenn wir gerade/schon dabei sind*. In: *Cognitive Linguistics*, 35/1, 67 – 107. DOI: 10.1515/cog-2020-0117.

GOLDBERG, A. E. (2006): *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.

GOLDBERG, A. E. (2019): *Explain Me This: Creativity, Competition, and the Partial Productivity of Constructions.* Princeton: Princeton University Press.

GRIES, S. Th. (2009): *Statistics for Linguistics with R: A Practical Introduction*. Berlin & New York: Mouton de Gruyter.

GRIES, S. Th. – STEFANOWITSCH, A. (2004): Extending collostructional analysis: A corpus-based perspective on 'alternations'. In: *International Journal of Corpus Linguistics*, 9/1, 97 – 129.

de HAAN, F. (2012): The relevance of constructions for the interpretation of modal meaning: the case of *must*. In: *English Studies*, 93/6, 700 – 728.

HILPERT, Martin. 2016. Change in modal meanings: Another look at the shifting collocates of *may*. In: *Constructions and Frames*, 8/1, 66 – 85.

HILPERT, M. – FLACH, S. (2020): Disentangling modal meanings with distributional semantics. In: *Digital Scholarship in the Humanities*, 36/1, 307 – 321.

HOFFMANN, T. – HORSCH, J. – BRUNNER, T. (2019): The More Data, The Better: A Usage-based Account of the English Comparative Correlative Construction. In: *Cognitive Linguistics*, 30/1, 1 – 36.

HOHAUS, P. – SCHULZE, R. (eds.) (2020): *Re-assessing Modalising Expressions: Categories, co-text, and context*. Amsterdam: John Benjamins.

HOPPER, P. J. (1979): Aspect and foregrounding in discourse. In: Givon, T. (ed.): *Discourse and Syntax*. New York: Academic Press, 213 – 241.

HOPPER, P. J. – TRAUGOTT, E. (1993): *Grammaticalization*. Cambridge: Cambridge University Press.

HORSCH, J. (2023): From corpus data to constructional networks: Analyzing language with the Usage-based Construction Grammar framework. In: *Jazykovedný časopis*, 74/3, 701 – 740.

HUDDLESTON, R. – PULLUM, G. et al. (2002): *The Cambridge Grammar of the English Language.* Cambridge: Cambridge University Press.

IVANOVÁ, M. (2017): *Modálnosť a modálne verbá v slovenčine*. Prešov: FF PU v Prešove.

KARLÍK, P. (1998): Souvětí s *když už, tak už* a frazémizace spojovacího prostředku. In: *Naše řeč*, 81/5, 232 – 239.

KOCHAŃSKA, A. (2018): The hurting and healing power of words (and grammatical constructions). A cognitive grammar study of the interactive and interpersonal effects of a directive construction in Polish. In: *Journal of Pragmatics*, 134, 1 – 14.

KÖNIG, E. (1991): *The Meaning of Focus Particles: A Comparative Perspective*. London, New York: Routledge.

LECLERCQ, B. (2022): From modals to modal constructions: An n-gram analysis of *can*, *could* and *be able to*. In: *Constructions and Frames*, 14/2, 226 – 261.

LEECH, G. N. (2014): Where have all the modals gone? An essay on the declining frequency of core modal auxiliaries in recent standard English. In: Marín-Arrese, J. I. – Carretero, M. – Arús Hita, J. – van der Auwera, J. (eds.): *English Modality: Core, Periphery and Evidentiality*. Berlin, Boston: De Gruyter Mouton, 95 – 116.

LEISS, E. (2008): The silent and aspect-driven patterns of deonticity and epistemicity: a chapter in diachronic typology. In: Abraham, W. – Leiss, E. (eds.): *Modality–Aspect Interfaces: Implications and typological solutions*. Amsterdam/Philadelphia: John Benjamins, 15 – 41.

MARASOVIĆ, A. – FRANK, A. (2016): Multilingual Modal Sense Classification using a Convolutional Neural Network. In: *Proceedings of the 1st Workshop on Representation Learning for NLP*. Berlin: Association for Computational Linguistics, 112 – 120.

NAKANISHI, K. – RULLMANN, H. (2009): *Epistemic and Concessive Interpretation of at least*. Paper presented at CLA, Carleton University, May 24, 2009.

NESSET, T. – JANDA, L. A. (2023): A network of allostructions: quantified subject constructions in Russian. In: *Cognitive linguistics*, 34/1, 67 – 97. DOI: 10.1515/cog-2021-0117.

OLSHTAIN, E. – WEINBACH, L. (1988): Complaints: A study of speech act behavior among native and non-native speakers of Hebrew. In: Verschueren, J. – Bertucelli-Papi, M. (eds.): *The Pragmatic Perspective*. Amsterdam: Benjamins, 195 – 208.

PIŇÓN, Ch. (1997): Achievements in an event semantics. In: Lawson, A. – Cho, E. (eds.): *Proceedings of Semantics and Linguistic Theory (= SALT) VII. Ithaca*. New York: Cornell University, 276 – 293.

RUPPENHOFER, J. – REHBEIN, I. (2012): Yes we can!? annotating English modal verbs. In: *Proceedings of the Eighth International Conference on Language Resources and Evaluation (LREC-2012)*. Istanbul: European Language Resources Association (ELRA), 1538 – 1545.

SALMANI NODOUSHAN, M. A. (2007): Iranian complainees´ use of conversational strategies: A politeness study. In: *International Journal of Language Studies*, 1/1, 29 – 56.

SALMANI NODOUSHAN, M. A. (2008): Conversational Strategies in Farsi Complaints: The Case of Iranian Complainees. In: *International Journal of Language Studies*, 2/2, 187 – 214.

SEARLE, John R. (1975): Indirect Speech Acts. In: P. Cole – J. L. Morgan (eds.): *Syntax and Semantics 3: Speech Acts*. New York: Academic Press, 59 – 82.

SCHMID, H-J. – KÜCHENHOFF, H. (2013): Collostructional analysis and other ways of measuring lexicogrammatical attraction: theoretical premises, practical problems and cognitive underpinnings. In: *Cognitive Linguistics*, 24/3, 531 – 577.

STEFANOWITSCH, A. – GRIES, S. Th. (2005): Covarying Collexemes. In: *Corpus Linguistics and Linguistic Theory*, 1/1, 1 – 43.

SWEETSER, E. (1990): *From Etymology to Pragmatics.* Cambridge: Cambridge University Press.

TRAUGOTT, E. C. – KÖNIG, E. (1991): The semantics-pragmatics of grammaticalization revisited. In: Traugott, E. C. – Heine, B. (eds.): *Typological Studies in Language 19*. Amsterdam, Philadelphia: John Benjamins, 189 – 218.

TROSBORG, A. (1995): *Interlanguage Pragmatics: Requests, Complaints and Apologies*. Berlin-New York: Mouton de Gruyter.

UTSUMI, A. (2000): Verbal irony as implicit display of ironic environment: Distinguishing ironic utterances from nonirony. In: *Journal of Pragmatics*, 32/12, 1777 – 1806. DOI: 10.1016/S0378-2166(99)00116-2.

WEN, X. (2022): Construction pragmatics: A brief sketch. In: *Lege artis. Language yesterday, today, tomorrow. The journal of University of SS Cyril and Methodius in Trnava*. Trnava: University of SS Cyril and Methodius in Trnava, 7/1, 249 – 266.

ZEHENTNER, E. (2023): Allostructions re-revisited. In: *Constructions*, 15/1, 1 – 20.

Internet sources

Omnia Slovaca Maior IV. Bratislava: Jazykovedný ústav Ľ. Štúra SAV. http://ske.juls.savba.sk. (last access 6/5/2024).

Keď (to) už musíš vedieť… Život modálnych slovies po modálnosti

Resumé

Cieľom príspevku je analýza konštrukcie C1[*Keď/Ak už* SUBJ *musí* INF...], C2[*(potom) (aspoň)*...] v prípadoch, keď daná štruktúra funguje tzv. ako pragmatická modálna konštrukcia v tom zmysle, ako konštrukciu definuje konštrukčná gramatika (CxG). V CxG sa termín „konštrukcia" používa na označenie formálno-významových jednotiek, ktoré sú uložené v mentálnom úložisku zahŕňajúcom slová, idiómy, opakujúce sa sekvencie a polofixované vzorce (porov. Goldberg 2006). Sarkastické použitie verba *musieť* v týchto prípadoch potvrdzuje ambiguitu modálnych slovies, ktoré sa často používajú vo výpovediach so špecifickými pragmatickými účinkami. V istom type štruktúr môžu pôvodné významy modálnych slovies ustúpiť do úzadia a funkciou modálneho verba je signalizovať pragmatický význam, v daných prípadoch ide o ilokučný význam zodpovedajúci rečovému aktu sťažnosti alebo výčitky. S cieľom overiť štruktúrne indikátory, ktoré sa s pragmatickou modálnou konštrukciou spájajú, sme danú štruktúru vyhľadali v korpuse Omnia Slovaca IV Maior. Z celkového počtu 2 996 tokenov sme na základe náhodne zvolenej vzorky manuálne anotovali 257 dokladov tohto typu štruktúry, a to z hľadiska vnútrovetných indikátorov (sémantická hodnota modálneho verba a osoba a čas modálneho verba a vid a sémantický typ infinitívneho predikátu) a medzivetných indikátorov (sémantická hodnota modálneho verba a ilokučná funkcia maticovej vety). Na identifikáciu asociácií spomínaných indikátorov v rámci týchto skúmaných modelov sme použili štatistické testy aplikované v kovariančnej lexikálnej analýze. Tá odhaľuje, ktoré z daných indikátorov (z hľadiska gramatických a lexikálnych vlastností štruktúr

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fungujúcich ako relevantné konštrukčné prvky) prispievajú k miere ukotvenia danej konštrukcie.

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