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Clause-Initial Connectives, Bound and Unbound: Indicators of Mood, of Subordination, or of Something More Fundamental?

1. Introduction

This paper addresses core notions like '(analytical) mood', 'subordination' and 'complementizer'. Such notions play a crucial role in the analysis of clause combining and which, correspondingly, have been occupying center stage in pertinent work on Germanic and Romance languages, but also in Balkan linguistics. Although these works will serve as a certain point of departure, the focus will be on relevant phenomena in Slavic languages, primarily because they supply numerous cases illustrating the problems that underlie notions like those mentioned above. The relevance for more general concerns (beyond Slavic linguistics) should become evident in the course of my exposition of the issues, which will anyway be accompanied by references to research dealing with other languages.

Let us start with 'mood'. In the last resort, mood contrasts have to do with manipulations on the reality status of utterances or, in an alternative parlance,

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mood distinctions restrict the number of possible worlds for which some content p (or non-p) holds (cf., e.g., Giannakidou, 2009, p. 1884). Often such distinctions are accompanied, or even conditioned, by differences of illocution. While such definitions address notional contrasts associated to 'mood(s)', one might also ask how mood is marked on word or clause level: by desinences on verb stems, by auxiliaries (i.e. complex predicates), by any kind of clausal marker, including discontinuous marking? The problem is not simply a matter of preference (or convictions) in one's linguistic theory and in data analysis, and the problem aggravates with the notion 'complementizer' or, more generally, 'clausal subordinator'. These elements, which usually (in European languages, at least) occur on the left edge of clauses, likewise manipulate on the reality status of utterances (Kehayov & Boye, 2016; Nordström, 2010); in addition, they presuppose an asymmetric relation between two adjacent clauses, as they are considered signs of this asymmetry. To make the circle close, we should realize that particular moods, e.g. the subjunctive, are traditionally associated with the dependent part of asymmetric clause combinations, in particular with embedding (e.g., Giannakidou, 2009, p. 1883; Manzini, 2000; Orszulak, 2016; Palmer, 2001, p. 5; Tomić, 2012, p. 339). Thus, when are left-edge connectives¹ to be considered subordinative conjunctions or mood markers (auxiliaries), or both at once? How, then, may they be distinguished? Or do these elements simply mark non-realized states of affairs, while the aforementioned distinctions are altogether irrelevant and too much fraught by (yet not fully clarified) theoretical premises?

These questions, which indicate the risk of running into vicious circles, are not just of an academic nature. Consider the following sentences:

Polish

(1) Przywódcy państw NATO coraz częściej domagaj-a się, Niemc-y na nowo demand[IPFV].PRS.3PL REFL COMP.IRR Germany-NOM.PL anew zdefiniowa-ł-y rol-e świeci-e. swoj-a role[F]-ACC.SG define[PFV]-LF-NONVIR-3PL POSS-ACC.SG.F world-Loc.sg in 'NATO leaders are increasingly demanding that Germany redefine its role in the world.' (PNC, n.d.; Gazeta Wyborcza, 17.12.1994)

¹ Here and henceforth I will use 'left edge' to mean 'clause initial'. It must not be identified with the term 'edge' used in Minimalism, but simply refers to material at the outmost left periphery of a clausal unit (which, in turn, can be identified, basically, with the syntactic unit that houses a predicate and its arguments, possibly with additional adjuncts). I thank one of the reviewers for drawing my attention to this specific use of 'edge' in generative syntax.

(2) Przecz-ę, jakoby=m przyby-ł-a tu w charakterze szpieg-a. deny[IPFV]-PRS.1SG as.though=1SG arrive[PFV]-LF-SG.F here as spy-GEN 'I deny that I came here as a spy.'

(PNC, n.d.; A. Spakowski: Chrzest ognia. 1996)

Czech

(3) Žádá-m ji, ať mě zapř-e.

demand[IPFV]-PRS.1SG 3SG.F.ACC DIR 1SG.ACC deny[PFV]-NPAST.3SG

'I ask her to deny me.' (lit. '...may she deny me.')

(CNC, n.d.)

Macedonian

(4) Izbegnuva-še da te sretne.
avoid[IPFV]-IMPF.3SG IRR 2SG.ACC meet[PFV]-PRS.3SG
'S/He avoided meeting you.'
(Tomić, 2012, p. 365)

Slovene

(5) (...) sem reke-l. mu_x say[PFV]-LP-(SG.M) 3M.SG.ACC AUX.PRS.1SG naj $\emptyset_{on=X}$ zaradi otrok-a nič naredi. ne for sake child-GEN do[PFV]-PRS.3SG nothing NEG 'I told him, not to do anything for the sake of the child.' (lit. '... may he, not do...') (GC, n.d.)

The left-edge element by in (1) introduces a clause which specifies the content of a semantic relation induced by the meaning of the predicate in the preceding clause (domagaja się 'they demand'). Since this meaning refers to some unrealized state of affairs (SoA), the choice of this left-edge element is restricted (it cannot be a "declarative", or standard, complementizer), but this element itself restricts the shape of the predicate in its "own" clause: the verb must take on the *l*-form (if not the infinitive), i.e. the admissible array of forms for this predicate is narrower than in main clauses, or in clauses with a standard complementizer. In (2), the clause-initial connective (jakoby) incorporates the same element (-by), which, in turn, although being inseparably agglutinated to the preceding part (*jako*), serves as host for enclitics and still triggers the *l*-form (see §3.1). In turn, (3) has a left-edge "particle" (at) which introduces a clause in basically the same meaning relation to the preceding predicate (žádam 'I demand') as in (1), but here a non-past form is used (and the *l*-form excluded). By comparison, the left-edge element *da* in (4) also belongs to a clause which specifies a meaning induced by the preceding predicate (izbegnuvaše 's/he avoided'). In addition, it signals that the respective SoA was not yet realized at the given reference interval; concomitantly, it restricts admissible forms of the predicate to present tense.² However, this element always attaches as a proclitic to the verb. Finally, the left-edge element naj in (5) likewise combines with the nonpast (more strictly: the present tense, since future is practically excluded);³ it marks some unrealized SoA (associated with a directive speech act) which can be easily associated with a meaning relation induced by the preceding predicate ($sem\ rekel$ 'I said'); see §4.1. Moreover, the reported speech act coded by the naj-clause shows a shift of person deixis ($2^{nd} > 3^{rd}$ person) according to the reporting speaker, which is a clear symptom of structural dependency. The same holds true for jakoby=m in (2): 3^{rd} (or 2^{nd}) > 1^{st} person in accordance with the reporting speech act.

These few examples, chosen ad libitum from various Slavic languages, demonstrate a couple of things at once:

- (i) left-edge elements may restrict the choice of admissible grammatical forms on the (verbal) predicate;
- (ii) these restrictions vary for different elements (compare by in (1–2) with all other units adduced above);
- (iii) some such elements may occur either as self-standing units or they are tightly incorporated as parts of larger word units (compare Pol. *by* in (1) and -*by* in (2)), but this does not have apparent consequences for restrictions of grammatical forms of the verb;
- (iv) units may look as if they are left-edge, although, on closer inspection, they turn out as verb-oriented proclitics (compare *da* in (4); see §3.2);
- (v) all left-edge elements represented in (1–5) have very different etymologies.

Given the meaning relation with the (predicate of the) preceding clause, all these units might be (and mostly have been) classified as complementizers, that is, as word units which serve as flags of clausal arguments of superordinate predicates (see §4.1). Simultaneously, however, most of these units have also been discussed as auxiliaries marking 'analytic moods' (in concert with some form of a lexical verb), despite the fact that they occupy very different places on word-clitic-affix clines: compare the entirely bound *-by* in (2) vs prosodically free *at* and *naj*, with proclitic *da* and,

² Also the perfect (BE + l-participle) is possible (see, e.g., 20b), in particular in the scope of epistemic, or inferential, markers; compare, e.g.,

Mac. Deca-ta mora da pristigna-l-e vo petok children-DEF must IRR arrive[PFV]-P_PTCP-PL in Friday 'The children must have arrived on/by Friday' (from Wiemer, 2014, p. 132)

³ The only exception is $b\hat{o}$, which is the future form of biti 'be', at once the only verb with a "synthetic" future (e.g., $Naj\ bo\ pomlad$ 'Let it be spring').

possibly, *by* in (1) as intermediate on this cline. The problem cannot be solved just on a conceptual level, since both mood (resp. their auxiliaries) and complementizers function as clause-level operators (if not on higher levels), regardless of their degree of boundedness. Moreover, in Slavic and other languages, expressions of either class – let us call them quasi-auxiliaries and left-edge clausal subordinators – show systematic (diachronic and synchronic) connections with so-called 'particles' (or, more rarely, with WH-words). These facts cause notorious problems in the delimitation of mood(-like) auxiliaries and clausal connectives. It is important to understand to which extent these problems are artefacts of premises in theorizing, or otherwise, whether notions like 'mood', 'complementizer' (or 'subordinator'), 'auxiliary' do not, in the last resort, refer to basically similar linguistic creatures which often cannot be held apart even on the basis of clear-cut distributional criteria.

In the following, I will discuss the central notions (§2), before I survey relevant facts from Slavic languages (§3) and try to state the essence of a methodological dilemma (§4). In conclusion, I will try to formulate the neuralgic points for which solutions should be sought (§5). The discussion is by no means exhaustive, and some theoretical premises can only be scratched upon, but I hope that the selected examples and issues help to clearly state the principled points. Moreover, although it is inevitable to supply some diachronic background, I refrain from a more systematic diachronic account.

2. The critical notions

In the typological literature, reality status has been discussed under the label of 'ir/realis' marking. According to Elliott (2000, pp. 66–67), an utterance carries a 'realis' meaning if it asserts that a state of affairs (SoA)⁴ is an "actualized and certain fact of reality", i.e. the speaker lends full epistemic support (Boye, 2012) to a proposition conveyed by that utterance. This implies that utterances without a proposition (e.g., imperatives and their equivalents,

⁴ Also known as 'eventuality'. Actually, SoAs correspond to situation types represented by predicate-argument structures, whereas propositions incorporate SoAs, but provide referential anchors for them. In particular, propositions are anchored to singular time intervals for which an assertion holds. Therefore, propositions can be submitted to truth conditions (in a logical tradition) or become the target of epistemic support (from a functional point of view). All knowledge/belief operators (epistemic or evidential operators) presuppose propositions (Boye, 2012).

but also purpose clauses) cannot acquire realis meaning, simply because they lack propositional content. However, irrealis meanings also obtain if a SoA is presented as belonging "to the realm of the imagined or hypothetical, and as such it constitutes a potential or possible event but it is not an observable fact of reality" (Elliott, 2000, pp. 66–67; cf. also Mauri & Sansò, 2012, p. 99). That is, utterances with propositional content belong to the irrealis domain either if the speaker does not lend full epistemic support to this content (or doubts it), or if this content is suspended since it cannot be "checked". The former applies with clauses that are couched with epistemic modifiers⁵ or depend on predicates that code cognitive attitudes or declarative speech acts (compare ex. 2 above); the latter is the case with hypothetical conditionals, habitual statements, or statements about the future.

These distinctions often go unnoticed. For instance, Ledgeway (2016) opposes 'propositional' and 'irrealis' complementizers (resp. complements): the former comprise all epistemically modifiable complements (irrespective of the degree of epistemic support), while the latter either only relate to "states/ events as unrealized with respect to the event time" (Ledgeway, 2016, p. 1015) and are practically restricted to complements of volition-oriented predicates, or they are equivalent to (resp. co-occur with) the morphological subjunctive (Ledgeway, 2016, p. 1021). Consequently, clauses coding a propositional judgment with weak epistemic support are not subsumed under 'irrealis'.

The conceptual contrast between realis and irrealis, which seems to have grammatical status in some languages, lies also at the core of mood (±indicative) distinctions, in particular of 'subjunctives' (or 'conditionals'). This overlap has caused debates, which have been complicated because form- and function-related contrasts have often been mixed up. After all, 'subjunctive' and 'irrealis' share some common semantic (or: cognitive) space, but their markers show different distributional properties (Mauri & Sansò, 2012, 2016; Palmer, 2001, pp. 185–202; Плунгян, 2011, pp. 427–449).

The notion of ir/realis has been criticized for its vagueness, in particular because any kind of acknowledged mood, except indicative, can be considered 'irrealis'; cf., for instance, Kehayov (2017, pp. 49–50), who also points out that

⁵ Or with evidential modifiers that trigger implicatures of weakened epistemic support (for this relation cf. Wiemer, 2018).

 $^{^6\,}$ See also Cruschina and Ledgeway (2016, pp. 565–568) on clause structure in the same volume.

this notion overrides "qualifications of states of affairs and qualifications of propositions". However, it is exactly this distinction which I have discriminated above and which divides 'irrealis' into a volition- and a cognition-related subdomain. Anyway, I will use 'ir/realis' as a conceptual notion, while 'subjunctive' (and other ±indicative contrasts) will refer to regular morphosyntactic patterns in the particular languages. Still, this leaves open two questions. First, how tight should the relation between parts of such patterns be in order to count as 'subjunctive'? The answer depends on whether one cares, or not, about the "locus" of ir/realis, or mood, marking (see §3, §4.3). Second, ir/realis and ±indicative contrasts can be marked in main and in embedded clauses or, more generally, these contrasts apply irrespective of whether subordination applies, and in which respect (see §\$4.1–2).

2.1. An equivalent of ir/realis: non/veridicality

An equivalent of the ir/realis distinction is the notion of non/veridicality, which has been developed primarily in formal semantics and generative frameworks. There are slightly divergent understandings of veridicality, but each of them basically rests on Kratzerian modal semantics based on the quantification over possible worlds (Kratzer, 2012). Thus, Giannakidou (2009, 2016) defines non/veridical utterances via semantic spaces, and for non-veridical statements the world of what some judging subject knows, or believes, is divided into subsets of worlds for which, respectively, *p* holds or not. Smirnova (2012) makes the same model-theoretic assumptions, but non-veridical statements are considered as heterogeneous (the set of possible worlds splits into *p*-worlds and *non-p*-worlds), whereas veridical statements are homogeneous (there are either only *p*-worlds or *non-p*-worlds). Since veridicality applies to propositions, i.e. to clause types that can be modified epistemically, all clause types void of propositional content should either be considered non-veridical or the distinction simply does not apply (in analogy to ir/realis; see above).

As emphasized by Giannakidou, among clauses with propositional content, epistemic commitment is always anchored to some judging subject, but this subject may switch between the speaker of the current utterance and another subject, e.g. the subject of a predicate with a clausal complement (henceforth: complement-taking predicate, CTP). For brief surveys cf. Krapova (2021, pp. 251–253), Krapova et al. (2022). Wiemer (2021, pp. 55–56) shows that the non/

veridical distinction is tantamount to distinctions of (non-)factuality, which have been known (under different names) for a longer time.

After all, the non/veridicality distinction has been used to pinpoint the difference between indicative and subjunctive mood (e.g., Smirnova, 2012), but it has also been used to capture differences in the semantics of various elements in the 'left periphery', among them complementizers (see §§4.1–2). Thus, like the ir/realis distinction, the non/veridicality distinction does not by itself tell us anything about a delimitation between these assumed categories, nor of often associated notions like subordination or embedding.

2.2. Subjects: propositional vs volitional attitudes

Subjects may not only judge propositions, they also may supply anchor points for volitional attitudes, which are no less important for 'moods' and clausal subordinators. Compare the contrast of judgments (full vs weak epistemic support) in (6a-b) with the volitional attitude in (7a) and the likewise volition-based purpose meaning of the $\dot{z}eby$ -clause (7b). In turn, (7a) and (7b) likewise contrast with (7c), which is both "volitionally neutral" and implies full epistemic support (as does 6a):

Polish

cognition-based attitudes: judgments over propositions

- (6a) *Sądzę że zyskamy na tym wszyscy.* 'real' 'I think **that** we will all benefit from it.' (full epistemic support) (PNC, n.d.; 2006)
- (6b) *Nie sądzę, by gościnność Ilonki była nostalgią za przeszłością.* 'irreal' 'I don't think **that** Ilonka's hospitality is nostalgia for the past.' (weak epistemic support) (PNC, n.d.; 1997)

volition-based attitudes:

- (7a) Mówi-ł-a-m, żeby=ś obudzi-ł Marian-a say[IPFV]-PST-SG.F-1SG COMP.IRR=2SG wake_up[PFV]-LF-(SG.M) PN-ACC przypomniała wnukowi babka. 'irreal' 'I told you to [li. that you] wake up Marian grandmother reminded her grandson.' (directive) (PNC, n.d.; I. Jurgielewiczowa. 1961)
- (7b) Mów-isz tak, żeby mi dokuczy-ć. 'irreal' say[IPFV]-PRS.2SG so COMP.IRR 1SG.DAT tease[PFV]-INF (purpose) 'You say that (in order) to tease me.'

 (PNC, n.d.; St. Mrożek. 1976)

vs

(7c) Ul-a mów-i, że przebił-e-ś nog-ę szkł-em.
PN-NOM say[IPFV]-PRS.3SG COMP pierce[PFV]-PST-SG.M-1SG leg-ACC.SG glass-INS

'Ula says **that** you pierced your leg with glass.' (PNC, n.d.; I. Jurgielewiczowa. 1961)

'real' (assertive)

For equivalent contrasts in Balkan Slavic, see §3.2.

Contrasts of moods, ir/realis or complementizer choice often hinge on (or are triggered by) differences in illocutionary force, more precisely: between assertive and directive speech acts. We may also speak about different directions of 'fit': from world to word (→ assertive illocution) or from word to world (→ directive, optative illocutions).⁷ Only assertive illocutions are strictly associated to propositional content (as related to knowledge and belief), while directive illocutions and purpose are only related to SoAs (as based on volition, or intention). This corresponds to the aforementioned contrast between two irrealis "subdomains", a volition-oriented and a cognition-oriented one. Speech can be related to either domain, and many CTPs can be used in either way. Here belong many verbs denoting speech acts (like Pol. *mówić* 'say', compare 7c vs 7a-b). Apart from that, many verbs of knowledge show an, as it were, cognition-internal split between realis and irrealis use, when we observe that they may refer not only to propositions ('know/learn/remember that p'), but alternatively to situation types, i.e. SoAs ('know/learn/remember how to')8 or to capabilities (compare Germ. Er wußte sich zu helfen 'He managed to help himself'). Perception is somewhat intermediate between both subdomains, but - as far as the phenomena discussed here are concerned – perception rather patterns with the cognition domain (cf. Wiemer, 2021, рр. 91-100 for South Slavic; Grønn, 2023 and Летучий, 2021, pp. 81-86 for Russian). In the following, perception predicates will be left aside.

The division volition–perception–cognition perspicuously resembles hierarchies of correspondences between semantic and syntactic integration of complex predicates and complex sentences, known from Givón (1980) and Cristofaro (2003) as 'semantic integration hierarchy' (SIH). This is no accident. On an average, volition-based CTPs are more tightly integrated with their complements, while clause linkage in the cognition-based domain generally demonstrates much looser linkage patterns. From the semantic point of view stronger tightness is conditioned by the impossibility of conceptualizing one SoA without the other one; for instance, *She wanted to come*: the COME-event conceptually depends on the intention denoted by *want*, whereas in, e.g., *She said that he had come* the COME-event occurred

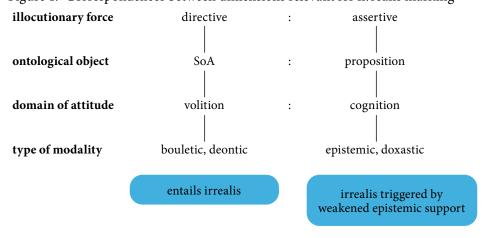
⁷ Cf. Searle (1977). In his terminology, assertive illocutions are called 'representative'.

⁸ For comparative lexicographic and semantic accounts cf. Danielewiczowa (2003) and Sonnenhauser (2017). For parallel facts in Balkan Slavic cf. Smirnova (2012) and Pitsch (2018, pp. 71–72, 76–78).

(or not) independently from the say-event. Concomitantly, semantic tightness usually manifests itself in temporal dependence: the temporal location of one event cannot vary in relation to the other one. Thus, usually CTPs of volition/intention entail that the event denoted in their complement is posterior. Structural reflexes of stronger tightness are obligatory pro-drop with same-subject clause pairs in Balkan Slavic, or otherwise the use of the infinitive for the dependent event (see below). Another reflex is tense-aspect restrictions like those mentioned already in §1; consider the so-called "immobile present" in SerBoCroatian (Ivić, 1970), which corresponds to the aforementioned tense restrictions after da in Balkan Slavic (compare, e.g., Krapova's (1998, p. 83) "pleonastic" use of present tense, which Pitsch (2018, p. 65) refers to). In languages, in which the infinitive is employed productively, such as the North Slavic ones, the infinitive and restrictions to the *l*-form (see §1) largely distribute along the same-subject vs different-subject divide. Both "techniques" apply in clause linkage with a high degree of semantic integration. In a sense, this might be considered deranking (cf. Wiemer, 2021, pp. 104–105 for a discussion). In generative literature, phenomena pertaining to the SIH have been discussed under 'clause union' and 'restructuring' (Wurmbrand, 2001, 2015, among others, compare Meyer, in press, for a survey).

The following figure subsumes the aforementioned dimensions, their contrasts and mutual associations (see vertical axis).

Figure 1: Correspondences between dimensions relevant for ir/realis marking



Many of the connectives discussed below are employed in either domain, but some of them only occur in one of them. Among the latter ones, most are related to the volition domain, and it is these elements which are most troublesome, since it is these ones which have usually been considered in connection with 'analytical mood' (see §4.3). All of them originate in the domain of directive, or optative, speech acts (see §3.3). Apart from that, it should become clear that these connectives are not by themselves reliable indicators of the tightness between adjacent clauses in discourse, let alone of an assumed main–embedded distinction.

3. The phenomena

Originally, the subjunctive in Common Slavic (CS) was marked by a special form bi of the copular verb byti 'be' with a separate set of endings in combination with the l-participle, i.e. an active anteriority participle. This periphrastic subjunctive has basically been preserved in North Slavic and Slovene, although changes have occurred to the copular verb (bi was replaced by by, a fossilized AOR.3SG-form of byti) and the person-number endings (in West Slavic). In Balkan Slavic, this original subjunctive has largely been ousted by clause types based on the irrealis connective da, but this process also shows an advanced stage in the remainder of South Slavic (see §3.2).

3.1. North Slavic: the fate of by

The crucial point is that North Slavic *by* keeps behaving as an enclitic, and this behavior has caused incorporation of *by* into new lexical units which behave as if -*by* still were a clitic. Originally a 2P-clitic, *by* consistently attached to the first independent prosodic unit of the clause, afterwards this rule deteriorated: *by* continues to be a strict enclitic, but is no longer bound to second position. Simultaneously, *by* itself has been serving as host of person-number

¹⁰ Cf. Tomić (2006, 2012), Тополињска (2018) for Balkan Slavic, Topolińska (2003, pp. 312–319), Uhlik and Žele (2022, pp. 117–158) for Slovene.

⁹ For comprehensive treatments cf. Panzer (1967), for Russian cf. Добрушина (2016). A critical survey and further references are provided in Fortuin and Wiemer (in press). In addition, all South and West Slavic languages except Polish employ clitic forms of the verb 'be', e.g. Bulg. čel=săm, Cz. četl=jsem 'I (have) read', whereas in Polish these former enclitic forms have increasingly been tending toward agglutination with the *l*-form of the verb (e.g., Pol. czyta-*l*-em). However, these person-number morphemes retain their enclitic behavior in the environment of the irrealis morpheme *by* (see below), e.g. *ja=by=m to czytal* 'I would read that', *gdy-by=śmy to czytali* 'if we read this' (cf. Вимер, 2015, pp. 211–217, with references).

enclitics in West Slavic so that [by=person-number] forms an enclitic cluster regardless where by is placed (after the 2P-rule was lost). Jointly, by triggers the l-form (or the infinitive), which in this combination does not mark past tense and has become a morphone, i.e. a morphological segment that bears no effect on syntax or semantic interpretation (Aronoff, 1994; Stump, 2016). In East Slavic person-number marking with the l-form has simply been lost, thus no clusters result (see 11). However, in both West and East Slavic, by has remained an enclitic which can attach to almost any prosodic host before the verbal predicate (i.e. l-form or infinitive) or it attaches to this verb form. In Polish, the tendency for by to attach to the verb appears to have been increasing, a tendency which might ultimately end up with agglutination (see fn. 9). I will not consider this issue here further, but note that such a tendency runs counter to the "clause-initial phenomena" we are concentrating on here (and which obviously result from an earlier "2P-layer").

See the following series of constructed examples. The verb (*l*-form) is underlined; here and in the following, constituents in brackets indicate admissible variable placement:¹¹

Polish

- $(8a)^{12}$ Bardzo = $by=\dot{s}$ (nas) $\underline{ucieszy-\dot{t}}$ (nas) swo-im przyjści-em. very =IRR=2SG 1PL.ACC please[PFV]-LF-(SG.M) POSSREF-INS.SG.N arrival[N]-INS.SG
- (8b) <u>Ucieszył</u>=**by**=**ś** nas (bardzo) swoim przyjściem (bardzo).
- (8c) Nas=by=ś (<u>ucieszył</u>) swoim przyjściem (<u>ucieszył</u>) bardzo.
- (8d) (Bardzo) swoim przyjściem=**by**=**ś** (nas) <u>ucieszył</u> (nas) (bardzo).
- (8e) *Bardzo nas <u>ucieszył</u> swoim przyjściem=**by=ś**.
- (8f) *Bardzo <u>ucieszył</u> nas=**by=ś** swoim przyjściem.
- (8g) *Nas swoim przyjściem <u>ucieszył</u> bardzo=**by=ś**.
- (8h) *<u>Ucieszył</u> (nas) bardzo=**by**=**ś** (nas) swoim przyjściem.

 '**You**(**sg**) would <u>please</u> us much with your visit / if you come.'

Importantly, the original 2P-behavior of *by* caused its fusion with clause-initial connectives, i.e. any sort of particle that tended to occur at the left clausal edge. Many of these "fusions" have been reinterpreted as connectives, in par-

¹¹ Of course, some of the variants in (8a-d) require a special intonation contour.

¹² A reviewer pointed out that clitic clusters like $=by=\acute{s}$ cannot attach to bardzo (in preverbal position). However, such examples do exist; compare, e.g., $tak\ bardzo\ =by=m$.1SG sie chciała $najpierw\ zakocha\acute{c}$ 'so $much\ I$ would like first to fall in love' (PNC, n.d.), also Wiemer (2023a, pp. 201–202). Otherwise, if bardzo and by=m were treated as two distinct prosodic units, by=m would have to be considered proclitic to the following unit (which does not seem justified).

ticular as subordinators; compare, for instance, Pol. *aby*, *żeby*, *jakoby*, Cz. *aby*, Ukr. *aby*, *ščob*, Russ. *čtoby*, but also units like Pol. *oby*, which does not function in subordination, but marks opative utterances (e.g., *Oby=ście by-l-i zdrowi!* 'May you be healthy!'). Crucially, all these units bear the final segment *-by* as an inseparable part, we are thus dealing with new lexical units, i.e. function words occurring at the left edge of clauses. Despite this high level of morphological integration, *-by*, as it were, "from within" these units still requires the *l*-form (if not the infinitive or, in Polish, the *no/to-*impersonal)¹³, or otherwise: it blocks non-past forms; see (9–11). In Polish, also *by* itself functions as a complementizer (see ex. 1, 14a) and subordinator of purpose and other clausal adjuncts as a self-standing unit (see Wiemer, 2023a, p. 191).

Czech

(9) Zároveň jsem zrychlil krok, aby=ch še-l vedle Tima. 'At the same time, I quickened my pace (in order) to [lit. that I] walk beside Tim.' (CNC, n.d.; 1995)

Polish

(10) Kinga prosiła, żeby=m jej nagra-ł tę audycję. 'Kinga asked me to [lit. that I] record this broadcast for her.' (PNC, n.d.; 2006)

Ukrainian

(11) Cilkom možlivo, ščob v tretij diji joho hra-v inšyj aktor staršoho viku. 'It is quite possible that another, older actor will play / played him in the third act.' (RNC, n.d., parallel corpora; 2009)

This peculiar behavior of left-edge clausal connectives with incorporated or self-standing *by* (henceforth: *BY*-connectives) can easily be explained from the morphologization process sketched above. For the contemporary stage, this behavior has caused debates as for whether subjunctive is marked with these units – which is tantamount to saying that subjunctive is marked by clausal connectives in concert with a restricted set of verb forms, but not on verb forms as such; cf. Załęska (1999), Szupryczyńska (2006) for Polish, Добрушина (2016, pp. 163–187) for Russian, Вимер (2015, pp. 199–220) for Russian and Polish.

¹³ One of the reviewers claims that Pol. *jakoby* (in clause-initial use) can also be encountered with present tense. However, I know of no authentic example (e.g., in the PNC, n.d.), and informed native speakers do not accept present tense after clause-initial *jakoby*. Thus, even if such use might occasionally be heard in colloquial speech, it could obviously be considered a very recent phenomenon.

However, *BY*-connectives and the "ordinary" subjunctive (= free subjunctive) pattern differently.¹⁴ First of all, in purpose clauses and complement clauses of volition-related CTPs, only *BY*-connectives are possible.¹⁵ Compare

Polish

- (12a) Poza tym rektor <u>żądał</u>, **aby** każde przesłuchanie odbywa-ł-o się w jego obecności. 'In addition, the rector <u>demanded</u> **that** each interrogation be held in his presence.' (PNC, n.d.; 2010)
- (12b) *... że każde przesłuchanie by się odbywa-ł-o w jego obecności.
- (12c) *... że każde przesłuchanie będzie się odbywa-ł-o / odbywa-ć w jego obecności.

An overlap between BY-connectives and the free subjunctive applies only for clauses that are related to cognition (incl. assertive speech acts), and thereby convey propositional content. In this domain, BY-connectives are possible almost only in clausal complements of CTPs under negation, which weakens epistemic support for the content of the complement clause (see 14b). An exclusion is watpić 'doubt', whose lexical meaning implies a low degree of epistemic support and which allows for a BY-connective without negation (see 15a). In turn, a free subjunctive does not occur with volition-related CTPs, but it occurs with cognition-related CTPs that convey weak or suspended epistemic support, regardless of negation. Consider the following Polish examples: in (13a-b) the standard complementizer że 'that' introduces a clausal complement of sądzić 'think, hold (an opinion)'; this clause is modified by the subjunctive, it can occur either after asserted (13a) or negated sądzić (13b). By contrast, (14a-b) show clausal complements introduced by BY-complementizers after the same verb; the negation could be moved into the complement clause with a roughly equivalent meaning, 16 but only without -by (compare 14b and 14b').

¹⁴ The analysis by Tomaszewicz (2009, pp. 222–226) is compatible with mine, although she does not draw attention to the role of negation and provides a different interpretation for complements with free subjunctives. In addition, she points out that some grammars make a distinction between 'subjunctive' (= *BY*-connectives) and 'conditional' (= free subjunctive). Obviously, Kaleta (2021) adheres to this view.

¹⁵ Of course, alternatives would be a clause with the standard complementizer ($\dot{z}e$) and a complex predicate with the modal auxiliary $mie\dot{c}$, or clause-initial niech with non-past tense (see the discussion of 36a-c in §4.4). However, here we are only dealing with the opposition between BY-connectives and "free subjunctive" =by.

¹⁶ This equivalence relation has been described as NEG-raising (Horn, 1985). For equivalent facts in Balkan Slavic cf. Siegel (2009, p. 1871), Wiemer (2021, p. 81).

subjunctive

- (13a) Nie próbowała oskarżyć profesora? Dochodzić swoich praw? A pan <u>sądzi</u>, **że by** próbowa-**ł**-a?
 - '- She didn't try to accuse you [the professor]? Claim her rights? Do you think that she would try / have tried?'
 (PNC, n.d.; 1993)
- (13b) Chyba <u>nie sądzisz</u>, że by-ł=by=m do czegoś takiego zdolny. 'You <u>don't think</u> that I'd be capable of something like that, do you?' (PNC, n.d.; 2010)

BY-subordinator

- (14a) Benedykt nie uważał się za geniusza. Żaden zresztą święty <u>nie sądzi</u>, **by** mu się ten tytuł należa-ł. 'Benedict did not consider himself a genius. <u>No</u> saint, moreover, <u>thinks</u> **that** he deserves [lit. **would** deserve] this title.' (PNC, n.d.; 2003)
- (14b) Politolog Radosław Markowski <u>nie sądzi</u>, **żeby** zmieni-**ł** się charakter kampanii.

 'Radosław Markowski, a political scientist, <u>does not believe</u> **that** the nature of the campaign will [lit. **would**] change [or: **would** have changed].'

 (PNC, n.d.; 2007)
- (14b') *Markowski <u>sądzi</u>, że / *żeby <u>nie</u> zmienił się charakter kampanii.* 'Markowski <u>believes</u> **that** the nature of the campaign has <u>not</u> changed.'

Furthermore, only the free subjunctive is admissible in hypothetical and counterfactual judgments, which are associated to conditions (see 13a and 16a, but also 13b), in contrast to clauses introduced with *BY*-connectives. Thus, for instance, in (14a) and (14b) the judgment (e.g., 'the character of the campaign hasn't changed') is just a statement that does not imply any contrast with a condition, whereas in (13a) and (13b) the embedded judgment evokes an implicit condition (e.g., 'I would be capable of doing sth. like this, if there were an occasion / a need'). Remarkably, negated *watpić* (which conveys strong epistemic support) occasionally takes a complement clause with the free subjunctive¹⁷ (see 15b), and in such cases a link to a condition becomes more prominent as well ('she will cope with the problem if such a need arises').

- (15a) <u>Watpię</u>, żeby moje odpowiedzi na coś się przyda-ł-y. 'I doubt that my answers will be / have been of any use.' (PNC, n.d.; M. Krajewski. 2006)
- (15b) <u>Nie wątpiła</u>, **że** w jakiś sposób potrafi-ł-a-**by** dać sobie radę. 'She <u>had no doubt</u> **that** somehow she **could** manage' (PNC, n.d.; T. Dołęga Mostowicz. 1934)

¹⁷ A cursory glance at the PNC (balanced subcorpus) suggests that the free subjunctive occurs only with negated *watpić*.

Speech-act verbs with complement clauses introduced by *BY*-connectives only code directive or optative speech acts, that is, volition-related meanings. Other properties ensue, such as a shift of subject, since same-subject constructions with volition-related complement clauses tend to occur with the infinitive; compare (16a) with (16b).

Russian

(16a) On rasserdilsja, bystro zakončil zasedanie, a $[naši\ sotrudnicy]_x$ potom govorili,

čto oni, by ne reši-l-i-s' na otkrytoe vystuplenie.

'He got angry, quickly ended the meeting, and [our employees] $_x$ later said **that** they $_x$ **would** not have dared to speak openly.'

(RNC, n.d.; as cited in Добрушина, 2016, p. 326)

(16b) ... [naši sotrudnicy]_x govorili, **čtoby** (oni_{$v\neq x$}) ne reši-**l**-is' na otkrytoe vystuplenie.

'... [our employees]_x said **that** they_{$v\neq x$} **shouldn't** dare to speak openly.'

This 'obviation effect' caused by BY-connectives after speech-act verbs (in contrast to clitic by + l-form), largely equals contrasts between temporally dependent [T-] vs independent [T+] da-clauses in Balkan Slavic (for which cf. Krapova & Cinque, 2018, p. 167; Pitsch, 2018, pp. 73–74); see §4.2.

Let us subsume. A distinction between clause-initial *BY*-connectives and the subjunctive arose as a consequence of the 2P-behavior of the irrealis marker *by*: regardless of its morphosyntactic status (incorporated morpheme, enclitic, or self-standing subordinator), *by* causes restrictions among the array of otherwise available paradigmatic forms of the verb. As part of clause-initial connectives, *by* can hardly be considered part of the verbal paradigm. What unites *BY*-connectives and the subjunctive is their relation to irrealis functions, although their domains of usage only overlap: clauses with *BY*-connectives and the free subjunctive may appear synonymous in the cognition-related domain, where, nonetheless, they entail different ranges of interpretations (Вимер, 2015, pp. 201–202; Добрушина, 2016, pp. 322–327). Table 1 provides a rough picture of their distribution.

Table 1:	Distribution	of BY-connec	tives vs free s	subjunctive	(North Slavic)
----------	--------------	--------------	-----------------	-------------	----------------

	volition (directive, optative speech acts)	cognition (assertive speech acts)
free subjunctive	-	(exclusive in counterfactual and hypo- thetical propositions)
BY-connectives	+	(+) (only with weak epistemic support, almost only with negated CTPs) ¹⁸

¹⁸ Pol. *jakoby* is a specific case (see ex. 2): it entails reference to a speech act ('hearsay') and occurs after suitable CTPs regardless of negation. However, there is no longer any *jako* as a clausal complementizer which might occur with the free subjunctive. For more details cf. Wiemer (2023b).

There are more details about the distribution of free subjunctives and *BY*-connectives, which cannot be discussed here (cf. Kaleta, 2021; Orszulak, 2016, 2020 for Polish). I should only add that the distribution of *BY*-connectives and the free subjunctive also differs in independent, i.e. main clauses. Thus, in Russian the "free" subjunctive marker *by* typically occurs in optative utterances, ¹⁹ either with the *l*-form (*Prišel by ty vovremja* 'You had better come in time'), or with an infinitive (*Popit' by* '(It would be good) to drink a little bit'), a modal (*Nado by popit*' '(It would be) necessary to drink a little bit'), a predicative (*Xorošo by otdoxnut*' '(It would be) good to take a rest'), a noun (*Vody by* 'Some water (would be good)'), or an expression coding directional movement (*K synu by* '(If only I/ we could go) to the son'); cf. Добрушина (2016, pp. 76–138). For *BY*-connectives this is untypical, unless in petrified curses (i.e. a kind of "negative wish"), and rather with a truncated form (e.g., *Čtob ty sdox!*²⁰ 'May you die!').

3.2. South Slavic

From a functional point of view, the closest counterpart of North Slavic by in contemporary South Slavic is da. The etymological equivalent of by is, of course, bi, but this subjunctive marker has increasingly been marginalized by da (see the introduction to §3 and references in fn. 10). The origin of da is unclear (Wiemer, 2017, pp. 325–327), but already in the earliest attestations, namely in Old Church Slavonic, da was established as a prominent marker of irrealis meanings, mainly with present-indicative forms of the verb, while its morphosyntactic status was difficult to determine (Večerka, 1993, p. 79). It occurred predominantly clause-initially, as a proclitic, but not necessarily attached to the verb, in purpose and other adjunct clauses, but also in complements of verbs denoting directive or optative speech acts, more rarely in adversative function (Večerka, 1993, pp. 79–81, 2002, p. 85). Moreover, da (+ PRS.IND) tended toward complementary distribution with the "synthetic" imperative (of 1st, 2nd person) thereby becoming, as it were, their analytic suppletive form of 3rd person (Večerka, 1996, p. 81). The further history of da in South Slavic

¹⁹ Often such utterances are also characterized by emotions (which makes them share features of Searle's 'expressives').

The form sdox.PST.M.SG (from pfv. sdóx-nu-t' 'die, fall (about animals)') belongs to a stem class which loses the l-suffix for masculine singular of the original l-form.

shows bifurcation within South Slavic yielding a clear (south)east-(north) west cline. On the one hand, da underwent a "career" as an ubiquitous irrealis marker in the (south)eastern part (= Balkan Slavic), where its usage expanded from clause linking into complex predicates, e.g. with modals and phasal verbs. Simultaneously, da remained restricted to irrealis functions (Wiemer, 2017, pp. 327–330). On the other hand, da lost this restriction in the (north)western part of South Slavic (with the štokavian area as kind of transitional zone), where it started being used as default (or standard) complementizer. Concomitantly to this loss, da, as a complementizer, does not behave like a verbal proclitic (see below). Because of this "unspectacular" behavior of da in the western part of South Slavic I will further concentrate on Balkan Slavic.

Since Balkan Slavic da marks irrealis and restricts the range of forms in the predicate (see below), it has been considered as a marker of 'analytical mood' (cf., for instance, Smirnova, 2010, 2012; Tomić, 2006, 2012; Werkmann, 2007, and the brief overview in Pitsch, 2018, pp. 69-70). According to this nomenclature, irrealis meanings are coded by combined (or scattered) marking with a clausal modifier (da) and verb forms whose inventory is restricted by this modifier. However, Balkan Slavic da differs from North Slavic by from a morphosyntactic point of view: the leftmost position which it often occupies in its clause is due to its leftmost position in strictly verb-oriented proclitic clusters. That is, *da* is less bound morphologically than *by* as inseparable part of connectives, but more bound than by in the "free" subjunctive.²² However, since da is part of a cluster which only attaches to verbs this morpheme no longer shows promiscuous attachment, which is a typical property of clitics, and slightly moved toward the affix pole. In addition, the range of verb forms which da allows for substantially differs from those admissible with North Slavic by: largely, da combines with the present tense (of either aspect) and the l-perfect (i.e. BE + true l-participle); see (4), (17–18), and (19b, 20b):

Macedonian

(17) Saka (decata) da (*decata) dojdat (decata). 'S/He wants the children to come.' (from Tomić, 2012, p. 368)

²¹ This functional extension of da has often been treated as a "split" into different da-units in SerBoCroatian (cf. Wiemer, 2021, pp. 60–62 with references). For a concise survey of the diachronic and diatopic variation of da within Slavic in general cf. Grković-Major (2020).

Regardless of this, *da* participates in the formation of conjunctions and similar clausal connectives; e.g. Bulg. *bez da* 'without', *kolkoto da* 'regardless, however'.

Bulgarian

```
(18) Petăr se nadjava (Ivan) da (*Ivan) kupi e kupil *šte kupil *šte kupil *šte kupi 'Peter hopes that Ivan will buy / has bought the house.' (from Krapova, 2021, p. 220)
```

Other forms are basically excluded, unless in counterfactual conditionals (which are inherently oriented toward anterior time intervals), where *da* occurs with the imperfect (Lindstedt, 2010, p. 413; Tomić, 2006, pp. 451–452, 483, 2012, pp. 395–396; Тополињска, 1996).

The Bulgarian example pairs in (19) and (20) illustrate the ir/realis contrast between *da* and another left-edge connective, *če*, which is considered a complementizer occurring after cognition-related CTPs.²³ (19a-b) demonstrates the contrast between cognitional and volitional use of *mislja* 'think' (and the concomitant contrast between propositional and SoA-complement clause), while (20a-b) shows the contrast between full and weakened epistemic support for propositional complement clauses (compare with ex. 6a-b and 13–14 from Polish); the brackets indicate alternatives (resp. their lack):

Bulgarian

```
(19a) Mislja
                                                   Ivan_{x}
                                                                                                      'real'
                               če
                                         ſпа
      think[IPFV].PRS.1SG
                                                   PN[M]
                               COMP
                                         on
                                          podari-xa
      koleg-i-te
                            (mu_x)
                                                                  samo
                                                                           cvet-ja.
      colleague-PL-DEF.PL 3SG.M.DAT
                                         donate[PFV]-AOR.3PL only
                                                                           flower-pl
      'I think that to John his colleagues gave only flowers for his birthday.'
      (from Krapova, 2021, p. 227)
                                                                                                     'irreal'
(19b) Mislja
                            da
                                   izlezna
                                                           malko
                                                                    na
                                                                           văzdux.
      think[IPFV].PRS.1SG CON go_out[PFV].PRS.1SG
                                                          a bit
                                                                                                  intention
                                                                    on
                                                                           air
      'I think (that) I'll go a little bit out into fresh air.'
                                                                (V. Kampf, p.c.)
(20a) Mislja,
      think[IPFV].PRS.1SG
                                                                                    'full epistemic support'
                 Paulina
                                                     izja-l-a
                                                                          tort-a-ta.
      (če)
                             (*da)
                 PN[F]
                                                     eat[PFV]-LP-SG.F
                                                                          cake[F]-SG-DEF.SG.F
      COMP
                             IRR
                                       be.prs.3sG
      'I think that Paulina ate the cake.'
(20b) Ne
              mislja,
                                                                                                      'real'
              think[IPFV].PRS.1SG
                                                                                  'weak epistemic support'
      NEG
```

²³ The cognition domain includes speech verbs, factive predicates (e.g., Bulg. *săžaljavam* 'regret', *măčno mi e* 'be sad') and some emotional predicates like 'hope' (see 18, 21). As CTPs these groups show different preferences and variation in complementizer choice (Bulg. *če*/Mac. *deka* vs Bulg. *deto*/Mac. *što*, or vs *da*), which are however not at stake here.

```
(če) Paulina (da) e izja-l-a tort-a-ta.

COMP PN[F] IRR be.PRS.3SG eat[PFV]-LP-SG.F cake[F]-SG-DEF.SG.F
'I don't think that Paulina ate the cake.'

(from Siegel, 2009, p. 1871, as cited in Pitsch, 2018, p. 78)
```

The connective *če* does not restrict the choice of tense and aspect in the finite verb, and it can occur left to NP-constituents of the complement clause; it is thus no verbal clitic. Compare (19a) with (21) and (23), which also show co-occurrence with the future marker (another verbal proclitic) *šte*:

Bulgarian

```
(21) Az
                           nadjava-m,
                  se
                          hope[IPFV]-PRS.1SG
                  REFL
    1SG.NOM
                                                             položitelen
                                                                               rezultat.
    če
             skoro
    COMP
             soon
                          FUT
                                       have[IPFV]-PRS.3SG
                                                             positive-(sg.m)
                                                                               result[M]-(sG)
    'I hope that soon there will be a positive result.'
    (from Mitkovska & Bužarovska, 2015)
```

The same applies to Mac. *da* vs *deka* 'that'. In the following, the facts presented for Macedonian hold true for Bulgarian as well, and vice versa.

By contrast, *da* can be separated from its verb (to the right) only by other proclitics (see 23): in (18) *Ivan* is the most agent-like argument of *kupi* 'buy' and cannot be interpreted as an argument of *nadjavam se* 'hope', but it must occur before *da* (*...*se nadjava da Ivan kupi*...).²⁴ Simultaneously, *če* cannot scope over a clause modified by *da*; compare (22) with a speech verb conveying a directive illocution:

Bulgarian

- (22) Kazax, (*če) Marija da dojde vednaga. 'I said that Mary should come right away.' (from Krapova, 2021, p. 225)
- (23) Včera očakvax ti da si rešil zadačite do utre, no sega viždam, če šte ti trjabva cjala sedmica. 'Yesterday I expected that you would do your math homework by tomorrow, but now I see that you will need an entire week.'

(from Krapova & Cinque, 2018, p. 166)

Moreover, constituents that are topicalized and occur before *če*, must be resumed by a pronominal clitic (24), whereas topicalized constituents uttered after *če* need not (but can) be resumed this way (19a); cf. Krapova (2021, p. 227), also for the example (translation adapted):

With *decata* in (17) the matter is less clear: one may consider it an argument of *saka* 'want', but in (17) there is an SoA-argument (*come* [X], X = children) and *decata* might be analyzed as subject-to-object raising.

Bulgarian

(24) Mislja [na Ivan]_x če kolegite *(mu_x) podarixa samo cvetja za roždenija den. 'I think **that**, as for Ivan_x, the colleagues gave him_x only flowers for his birthday.'

In the remainder of South Slavic (SerBoCroatian and Slovene), da has lost its irrealis feature and become the standard complementizer for propositional clausal arguments (25a). However, the earlier irrealis-feature still obtains in independent clauses (25b) and in SoA-complements (often treated under control constructions) as in (25c).

SerBoCroatian

(25a) *Javili su joj da je poseta otkazana*. 'They informed her **that** the visit was refused.'

(25b) Da ti pomogn-em.

IRR 2SG.DAT help[PFV].PRS-1SG

'Let me help you!'

(25c) ...razumeju odluku vlade koja im je naredila da se vrate u zemlju.

'I understand the decision of the government that ordered them to return to their land.'

(lit. '... ordered them that they return to their land.')

The loss of irrealis meaning is accompanied by the lack of proclitic behavior; instead, da occurs clause-initially and itself serves as a host of 2P-enclitics (see da = je in 25a, da se in 25c, da = ga in 25d, da = bi in 25e).

Da is also employed in adverbial subordination, e.g. in purpose clauses (see 25d), often in combination with other elements (e.g., za da 'in order to'). In particular, da occurs in linear sequence with the subjunctive marker bi (see 25e):

(25d) Kupili su sinu odijelo da ga obuče za matursko veče.

'They bought the son clothes (so) that he would wear them at the graduation party.'

(25e) Da bi uspješno položil ispit, moraš više da učiš.

'For you to successfully pass the exam, you must learn more.'

For analogous facts in Slovene cf. Topolińska (2003) and Uhlik and Žele (2022, pp. 136–145).

3.3. Volition-based clause level modifiers

All over Slavic, we encounter uninflected morphemes with a verb in present tense to mark directive, optative, or permissive speech acts, mostly oriented toward a third person ('jussive'). Almost all of these units derive

²⁵ The examples (25a, c, d, e) are taken from Пипер (2018, pp. 170–176, 456–457), (25b) is from Szucsich (2010, p. 399).

from verbs meaning 'let, release'. In most Slavic languages, these units are cognates, and they can be clearly identified as truncated (or root) forms of their stems: Pol. *niech(aj)*, Slk. *nech*, USorb. *njech*, Ukr. (*ne)xaj*, Bel. *njaxaj*, Bulg./Mac./BCMS *neka*, Sln. *naj* (< **nexati*); I will henceforth call them *NEXATI*-units. Russian exceptionally does not share this etymon, but derives an equivalent unit from the verb (aspect pair) *pustiti/puskati* with the same meaning: *pust'/puskaj*. All these forms obviously derive from the imperative.²⁶ Moreover, in modern Czech, *necht'* has become rather obsolete, a much better represented equivalent of *NEXATI*-units is Cz. *at'*, which derives from *a* + *ti*, i.e. a merger of a coordinative connective with an emphatic enclitic (Lamprecht et al., 1986, pp. 347, 393). As a cover term, regardless of their etymology, I will refer to these morphemes as *DIR*-units. For a first survey, including diachronic background, cf. Wiemer (2023c).

Regardless of their origin and degree of etymological transparency, *DIR*-units occur in independent clauses, and have been taken into consideration as markers of 'analytical mood' of directive or optative illocutions (see §4.3). Some of them also introduce clauses with a purpose, conditional, or concessive meaning (the latter probably as an expansion from a permissive function); see (27b), (28d), (29) and (36) below. In these functions, they often behave like subordinators that modify propositions and can therefore occur with past tense forms (Wiemer, 2023c, §2.2). An obvious prerequisite of this is their clause-initial occurrence. If, in addition, they follow immediately on a clause containing an expression that suits as a CTP, clauses headed by *DIR*-units can be interpreted as complement clause and, consequently, the *DIR*-unit as a complementizer (see 26b-c, 27a-d, 28b-c, e-f, 29d). The following corpus examples give an impression of how these units work in Slovene, Czech, Polish, and Russian.

Slovene *naj*

(26a)	Tu notri stoji zapisano: Vsak naj vzam-e svoj križ na rame.	main clause
	'Here it is written: Let each one (of us) take his cross on his shoulder.' ('	(direct speech,
	Everybody may take')	directive
	(GC, n.d.)	illocution)

²⁶ This makes plausible an original structure (also for the other languages) like this: *pusti skažet* 'let (s/he) says' (asyndetic juncture: imperative + present tense) > *pust' skažet* 'let him/her/them say' or 'may s/he / they say'.

(26b)	Popoldne je šef $_{\rm x}$ končno ukaza-l, afternoon aux.prs.3sg boss-(nom.sg) finally order[pfv]-pst-(sg.m) naj me $_{\rm y}$ pokličej-o k nj-emu $_{\rm x}$. Hort 1sg.acc call[pfv]-prs.3pl to 3-dat.sg.m 'In the afternoon the boss $_{\rm x}$ finally ordered that they call me $_{\rm y}$ to (come to) him $_{\rm x}$.' (' May they call me') (from Uhlik, 2018, p. 412)	reported speech (directive illocu- tion), person deixis
(26c)	Michael <u>svetuje</u> Diane, naj ne zaupa Phyllis, saj jo morda želi prelisičiti. 'Michael <u>advises</u> Diane not to trust Phyllis as she may be out to trick her.' (lit. ' may she not trust') (GC, n.d.)	according to reporting speaker

Czech ať

(27a)	"Otisi", houkl stroze, " ať Ralphovi pomůže ještě někdo se zavazadly."	main clause
	"Otis," he bellowed sternly, "have someone else help Ralph with the lug-	(direct speech,
	gage." (lit. 'may someone else help')	directive illocu-
	(CNC, n.d.; 2008)	tion)
(27b)	Nechtěla nic, ať to bylo grilované, smažené, pečené nebo syrové.	concessive/
	'She didn't want anything, whether/even if it was grilled, fried, baked or raw.'	conditional
	(CNC, n.d.; 2008)	
(27c)	Pojď blíž, ať se na tebe můžu pořádně kouknout.	purpose clause
	'Come closer, so (that) I can take a look of you.' (lit. ' may I have a look')	
(27d)	Julie jí _x řekla, ať jde _x dolů, do restaurace na oběd.	complement clause
	'Julie told her to go down to the restaurant for lunch.'	(directive illo-
	(lit. ' may she go down')	cution), person
	(CNC, n.d.; 1997)	deixis according to
		reporting speaker

Polish niech

(28a)	Stańcie naprzeciwko siebie w odległości 5 metrów, a następnie jedno z was niech przesunie się w prawo o 5 metrów. 'Stand facing each other 5 meters apart, and then have one of you move 5 main clause meters to the right.'	
(28b)	Kto się boi, niech wyjdzie stąd teraz. 'Whoever is afraid, let him get out of here now.'	directive illocution)
(28c)	Nie chcecie płacić, niech nas wyższa władza rozsądzi. 'You don't want to pay, let a higher authority judge us'	
(28d)	Więc właściwie nieważne, co się przytrafi, nawet niech się nagle znajdą w strefie klimatu równikowego, niech rozjarzą się szczęściem i beztroską – za późno. 'So it doesn't really matter what happens, even if they suddenly find themselves in the equatorial climate zone, or if they glow with happiness and carefree – too late.'	concessive clause

(28	www. www. www. www. www. www. www. www	complement clause
(28	Powiedz dyżurnemu, niech weźmie straż i rozpędzi tę hołotę, a niech nie żałuje kijów – rozkazał wyniośle.	(directive illocution)
	<u>'Tell</u> the duty officer, let him take the guard and disperse this riffraff, and let him not spare strikes with the stick – he ordered haughtily.'	

Russian pust'

(29a)	<i>Étot vopros tebja pust' ne volnuet.</i> 'Don't worry about this question.' (lit. 'Don't let this question worry you.')	
(29b)	Pust' pokazyvajut vot takix prestupnikov i takix služitelej zakona, pust' zastavjat nas otvlečsja ot mračnogo nastojaščego i poverit' v dobro. 'Let them show such criminals and such servants of the law, let them make us digress from the gloomy present and believe in goodness.' (RNC, n.d.; Forum 2006–2011)	main clause (direct speech, directive illocu-
(29c)	Ja el kita v bergenskom restorane – pust ' ot menja teper' otvernetsja Bridžit Bardo i pročaja Liga zaščity životnyx. 'I ate a whale in a Bergen restaurant – let Brigitte Bardot and the rest of the Animal Welfare League turn their backs on me now.' (RNC, n.d.; Skandinavskaja kuxnja, 2000–2005)	tion)
(29c)	Neobxodimo prinimat' kakie-to mery dlja ispravlenija ėtogo nenormal'nogo položenija. Pust ' sudej-stažerov budet mnogo, no oni ne budut vynosit' sudebnye rešenija. 'It is necessary to take some measures to correct this abnormal situation. Let there be many trainee judges, but they will not make judgments.' (RNC, n.d.; Otečestvennye zapiski, 2003)	concessive clause
(29d)	 (i) <u>Skaži</u> Anande, pust' on otvalit otsjuda s ėtimi svoimi ulybkami! '<u>Tell</u> Ananda, may he get the hell out of here with those smiles of his!' (2003) (ii) Nastavnik Rene <u>rešil</u>: pust' ėto i budet pervoj moej komissiej. 'Mentor René <u>decided</u>: let this be my first commission.' (1996) 	complement clause (directive illocu- tion), person deixis according to origi- nal speaker

A question naturally arises whether particular *DIR*-units are on their way to becoming complementizers. Concomitantly, one wonders what would make *DIR*-clauses subordinate: if it is not them which can be taken as signs of subordination, how can subordination be established? Alternatively, wouldn't it be justified to regard *DIR*-units as markers of analytic mood? These issues are approached in the next section.

4. The dilemma

Given facts like those discussed in §3 (and §1), even a superficial, but critical review of notions referred to in §2 discloses the risk of ending up in blind alleys, either because basic assumptions are incompatible, or because certain notions are ill-defined, considered irrelevant, or simply ignored.

4.1. Mood and clause-initial function words

In many approaches, 'mood' is considered not a verbal category, but a notional distinction on clause level that can be marked by expressions of various morphosyntactic formats.²⁷ That is, the only baseline for 'mood' is functional scope, namely: all relevant means target the illocutionary level and/or reality status, i.e. ir/realis respectively non/veridical contrasts (see §2).²⁸ However, indifference as for the morphosyntactic manner of expression overrides a distinction between 'mood' and the choice of functional elements (morphemes, words) that appear at the left edge of the clause, or at least left to the verbal predicate. In particular, one wonders whether the distinction between mood marker and complementizer (in clause combining) might become superfluous.

Thus, Noonan (2007, p. 55) characterizes a complementizer as "a word, particle, clitic, or affix, one of whose functions it is to identify the entity as a complement"; that is, it can practically be of any format and behave differently in clausal syntax. Some linguists regard complementizers as bound morphemes, both from generative camps (e.g., Roberts & Roussou, 2003, pp. 22–23) and from a functionally oriented perspective, as, e.g., Johanson (2013) in his account of complement clauses in Turkic. Apart from the question what makes a clause a complement (see §4.2), the unpleasant thing with all such vague notions of 'complementizer' is that they converge with (likewise vague) notions of 'mood' if, in turn, this category can be marked in almost any way on clause level (Wiemer, 2023a; see also §4.3). This convergence becomes evident, for instance, when Giannakidou

²⁷ For surveys cf. Kehayov (2017, pp. 44–51), Orszulak (2020), Fortuin and Wiemer (in press).

²⁸ In addition, illocutionary contrasts are often lumped together with conventionalized sentence types like declarative, interrogative, imperative clause (so-called 'sentence moods'). For criticism and differentiation cf. Zimmermann (2015), Kehayov (2017, pp. 45–46), Levinson (2017, pp. 205, 214), Fortuin and Wiemer (in press).

(2009, p. 1884) distinguishes two "realizations" of the "category 'subjunctive" in European languages: (a) "languages where the subjunctive is expressed with a piece of morphology on the verb specific to this category" (e.g., in Romance languages), and (b) "languages where no specific verbal morphology is employed but the category is identified with uninflected particles that appear external to the verb, looking like complementizers (and often characterized as such)" (e.g., in Balkan languages). Curiously, both "modes of realization" may co-exist, as, e.g., in Romanian (Dindelegan, 2013, pp. 466-469) or in some South Italian dialects (Ledgeway, 2016, pp. 1018-1019). Is, then, such a situation to be characterized as a "double mood system" (or, conversely, as a "double complementizer system")? Or should we dismiss such a possibility for a principled reason, namely, because these two realizations are not distributed in a complementary manner? Of course, it could be assumed that two different mood categories "interlace" in utterances yielding a certain (predictable) compositional meaning (see §4.3 on directive markers in combination with by). However, units like Balkan Slavic da and North Slavic by are variably regarded either as subjunctive markers (or parts of respective constructions) or as clause connectives; in addition, by happens to be regarded as subjunctive regardless of its degree of morphological integration (enclitic vs segment in a function word; see §3.1).

Moreover, if clause-initial connectives are called 'complementizers', this implies that these connectives serve as flags indicating that the clause which they head is an argument of a superordinate predicate. On the one hand, there is a huge gray zone in which clausal arguments are notoriously difficult to establish (Wiemer, 2023a, pp. 225–236); on the other hand, even if such a relation may be reasonably assumed, a clause-initial element need not be qualified as a complementizer. Compare, for instance, example (i) from (29d) (repeated here for convenience) and an equivalent Serbian example (for discussion cf. Wiemer, 2021, pp. 85–86):

Russian

(29d(i)) <u>Skaži</u> Anande, **pust'** on otvalit otsjuda s ėtimi svoimi ulybkami! 'Tell Ananda, **may** he get the hell out of here with those smiles of his!'

Serbian

(30) ... majk- a_x mi_y $re\check{c}$ -e, neka mu_z $sko\check{c}i$ - m_y na $le\check{d}a$.. mother[F]-nom.sg 1sg.dat say[PFV]-aor.3sg 3m.dat jump[PFV].prs-1sg 'my mother told me to jump on his back' (lit. '... may I jump on his back')

Probably nobody questions that Russ. *skazat*' and Serb. *reći* 'say, tell' require an argument coding the content of the speech act, and that the clauses fol-

lowing these verbs in (29d (i)) and (30) do code this content. In addition, this content carries a directive illocution, and *pust*' resp. *neka* commonly serve as signs denoting directive illocutions (see §3.3); they are thus perfectly compatible with the argument relation required by the preceding verb. Nonetheless, linguists hesitate to acknowledge that *pust*' and *neka*, respectively, serve as complementizers.

What are, then, the alternative analyses? Either the pust'/neka-clauses are treated as complement clauses with zero complementizer, or, after all, they are not complement clauses. The latter option seems absurd once we agree that skazat' and reći require an argument coding the content of speech. This leaves us with the first option (zero complementizer). Concomitantly, we might assume that the *pust*'- and *neka*-clauses convey direct speech which is loosely attached to the preceding verbal predicates (skazat', reći). This reasoning might hold for examples with clause-initial DIR-units, in which person deictic expressions correspond to the original speech act. However, whenever the original (= reported) speech contains 1st or 2nd person expressions (pronouns, verb desinences, etc.), the perspective to the event conveyed in the DIR-clause changes to the reporting speaker (see 30). This can be taken as a clear sign of reported speech and, thus, of subordination. In fact, we find such examples for Russ. pust' (e.g., (ii) in 29d: moej 'my' refers to the reporting speaker, as becomes clear from the wider context); for Sln. naj see (5) and (26b), for Cz. at see (27d). More such examples can be found in corpora. In these cases, we are rather dealing with subordinate, even embedded structures, i.e. clausal complements. However, even this provided, it is not clear whether clause-initial DIR-units should be regarded as flags of the argument relation: they may just mark the same speech act as they do in direct speech, and the complement relation is asyndetic, i.e. it remains without a flag.

There is yet another dilemma. Direct speech can be considered to fill an argument slot of a higher-order predicate, but it preserves an independent illocution. On first sight, such a situation runs counter to an important hallmark of subordination: embedded clauses are void of independent illocution. This tenet is shared by diverse strands of linguistic research. Thus, Lehmann (1988, p. 193) regards lack of, or constraints on, illocutionary force as the first property that gets lost in desententialization (which correlates with subordination) and concludes that "a subordinate clause may not normally have its own illocutionary force". Similarly, Verstraete (2007, pp. 157–159, 284) *de facto* treats lack of an independent illocution ('speech functional value') as the main

(or overarching) property of subordination. See further Cristofaro (2003, p. 18) from a functional-cognitive point of view as well as Zimmermann (2015, p. 580) and Nordström (2010) from the position of formal syntax (see also §4.2).

The tenet that subordination, in particular embedding, bars independent illocutionary force has been challenged by Krifka (2014, 2023). Krifka demonstrates that modifiers operating on the illocutionary level can show up in clauses that otherwise bear signs of embedding, first of all, because they are introduced by some acknowledged complementizer. Compare a German example from the internet (Krifka, 2023, p. 160):

(31) da hat er gesagt, dass er **offen gestanden** keine Ahnung hat, weil du und der Junge euch ständig irgendwie zurückzieht.

'then he suddenly said that he **frankly speaking** does not have a clue because you and the boy keep hiding somewhere'

The adverbial *offen gestanden* 'frankly speaking' occurs inside a complement clause (with the complementizer *dass* 'that'), but it belongs to the reported speaker, not the speaker who uttered (31).²⁹

Since here is not the place for a more elaborate discussion of the epistemological background of Krifka's theory³⁰ and of its details, I restrict myself to a few pertinent remarks. Krifka's analysis is restricted to assertive speech acts and the propositions which they convey. Moreover, he heavily relies on word order patterns of English and German; the appearance of Engl. *that*, Germ. *dass* is taken as a sufficient indication of embedding, i.e. these clause-initial units are understood as flags of clausal arguments regardless of what follows. However, first, the clause-initial employment of *DIR*-units introduced above is predominantly relevant for speech acts that are void of propositions since *DIR*-units primarily mark directive illocutions. One thus wonders how Krifka's approach applies to non-assertive (and non-interrogative) speech acts. Second,

Note, however, that person-deictic expressions (2nd person: *du* und der Junge; *euch* zurückzieht) are used in accordance with the reporting speaker.

³⁰ Krifka's global aim is the incorporation of illocutionary acts into a semantic theory; this theory should also allow for the inclusion of speech acts into a model of recursion and a dynamic representation of how speech acts contribute to updates of common ground between interlocutors. For this purpose, it has to be shown that illocutions can be treated as abstract objects, so that they become arguments of predicates (e.g., CTPs) and targets of modifiers (e.g., sentence adverb(ial)s); see in particular (Krifka, 2014, p. 85). In Krifka (2023) this goal is extended to also include discourse moves. Importantly, judgement, commitment and act (i.e. moves in discourse) are different layers that can host different kinds of modifiers and heads (Krifka, 2023, p. 155).

DIR-units in clause-initial position are not preceded by any dedicated complementizer, nor are there other clues of embedding (there are no word order rules distinguishing main from embedded clauses like those in Germanic languages) except shifts of person-deictic expressions (see above). However, as preliminary corpus surveys for various Slavic languages show, this potential clue is often useless, since both the presumable reported and the reporting speech act exclusively contain 3rd person expressions.

Above I argued that clauses with initial *DIR*-units might be analyzed as direct speech loosely attached to some expression that suits as a CTP in the immediately preceding context. Direct speech preserves the original illocution. We might thus assume that such *DIR*-clauses are best characterized as quotes that occupy an argument slot of a speech-act verb. Krifka considers such cases (for assertive speech acts), e.g. by contrasting three ways of conveying other people's utterances, as in (32a-c) cited from Krifka (2014, p. 77):

- (32a) John said to Mary "I admire Sue".
- (32b) John told Mary that he admired Sue.
- (32c) John told Mary he admires Sue. 31

The clause *he admires Sue* in (32c) can be understood as the propositional argument of *told* attached to it asyndetically. Subordination is supported by a person-deictic shift (1st > 3rd person for *John*). This type of clause combining is comparable to clauses with initial *DIR*-units following on clauses with predicates denoting speech acts, except that in the latter case we are dealing with non-assertive illocutions. Krifka treats the second clause in both (32b) and (32c) as subcategorized by *told*, whereas in (32a) the speech act conveyed by the direct quote is just "identified" and *said* just denotes the utterance type. The difference between (32b) and (32c) is even subtler: in (32b), "the verb *tell* expresses that an illocutionary act of the type of assertion happens", whereas in (32c) "the verb *tell* does not denote such a speech act, but subcategorizes for this kind of speech act as its argument" (Krifka, 2014, p. 79). Therefore, since the difference between (32b) and (32c) only consists in the presence vs absence of a complementizer, this seems to amount to saying that the complementizer serves as kind of pointer to an illocution to follow. But, first, the complemen-

³¹ The German equivalent of the second clause in (32c) would have V2-syntax, apart from possible subjunctive morphology on the verb (which would be likewise absent in Slavic languages).

tizer itself does not say anything about the <u>type</u> of illocution, and, second, when it is lacking (as in 32c) the only indication of a complementing relation is the semantics of the preceding verb (*tell*, *say*).

Honestly speaking, I am not sure whether this does not bring (32c) closer to (32a); the only palpable difference between them is the person-deictic shift in (32c), absent in (32a). Krifka (2023, p. 166) himself admits that he does not "consider the proper analysis of embedded V2 as settled". Moreover, Krifka (2023) even qualifies utterances with parenthetical comments (as in *It's just started to rain, he said*) as instances in which the part commented on by the parenthetical is "embedded" (2023, p. 137). Thus, Krifka's analysis supports the impression that the embedding of illocutions might be a gradable phenomenon, with utterances like (32c) occupying some hybrid stage. In this perspective, symptoms of independent illocutions are to be expected in quote-like clauses that are also embedded (to some extent).

4.2. Left periphery and subordination

Following Rizzi (1997), Krapova (2021) characterizes the left periphery of clauses in the following way (similarly in Cruschina & Ledgeway, 2016, pp. 564–568):

The term *left periphery* refers to that area of the syntactic representation of the clause where various contextually relevant sentential elements are encoded in order for the sentence to connect to preceding discourse. In embedded clauses, this is also the area where complementizers are located whose main function is to serve as syntactic elements connecting the matrix with the embedded clause. (Krapova, 2021, pp. 211–212)

This makes clear that clause-initial elements are important as a connection to immediately preceding discourse, but it does not answer the question when embedding occurs, and how we may recognize it, in the first place. Notably, the same elements in the highest node of clausal architecture are sometimes called "main (or root) clause complementizers" (e.g., Cruschina & Ledgeway, 2016, p. 568). This parlance suggests that the relevant clause-initial elements are just operators of illocutionary force (and of ir/realis distinctions), but whether clausal complementation applies, or not, is of minor (if any) importance. Or otherwise: dubbing an element in the left periphery a complementizer does not say anything about tightness of linkage with the preceding clause. In a strict treatment, however, embedding is a necessary condition (though

not a sufficient one; see §4.1 and §4.3) for a connective in the left periphery to become a complementizer.

As Nordström (2010, p. 95) resumes, complementizers "lexicalize the most peripheral functional category in the clause"; it is a "cover term for a set of functional categories", which determine illocutionary force and/ or a vaguely defined notion of 'finiteness'. In practice, the latter means that the clause codes a proposition (not only a SoA/event); even if embedded clauses, on an average, lack an independent illocution (see §4.2), they may still independently convey propositional content. This is tantamount to independent time reference (i.e. [T+]) and anaphoric (including zero) subjects that are not bound in, or licensed by, some larger syntactic domain; if embedded clauses lack these features, they are 'syntactically non-finite', i.e. [T-] (Krapova, 2021, p. 258; Pitsch, 2018, pp. 59-65, 79-83). [T-] applies in 'clause union' (or 'restructuring') phenomena, while [T+] is considered typical of "true subjunctives". In North Slavic, the distinction surfaces when we account for the different distributional patterns of BY-connectives and the "free" by-subjunctive, and these patterns correlate with the volitioncognition divide (see §3.1).

In Minimalism, complementizers are regarded as CP-heads, i.e. they realize the maximal projection (Krapova, 2021, p. 213). However, in practice complementizers are often subdivided by criteria relevant for the [T+] vs [T-] distinction and for higher vs lower parts of a complex CP-area (see below). In the highest possible (= leftmost) node, complementizers mark illocutionary force and 'sentence mood' (declaratives vs interrogatives, etc.), but this immediately raises the issue where this force goes in subordination (see §4.1). We might say that the force indicated by complementizers is "in harmony" (or compatible) with the lexical requirements of some higher-order predicate and "absorbed" by it.³² However, this only raises the question what makes the difference between syntactic and mere discourse dependence: semantic harmony applies to different kinds of clause sequences in any plausible under-

³² The idea that predicates select for complements of a specific semantic type was articulated already by Grimshaw (1979) for an earlier version of generative syntax. It was independently formulated in Wiemer (2023a, pp. 231–236, 251) from a functional-semantic point of view. An open issue is the question to which extent CTPs and complement clauses require mutual support to install a specific meaning relation constitutive of their pattern of embedding. However, all these issues do not answer the question whether a functionally suitable clause-initial connective needs to be considered a complementizer (see §4.1).

standing of coherent discourse (see ex. 3, 30, also 38a-c in §4.4). Thus, other criteria (like switch of person deixis, or obviation effects?) are called for to make this difference testable.

After Rizzi (1997), generativists assume that the CP-area is not uniform, but can be subdivided,³³ so as to explain (i) double complementizers, (ii) combinations of complementizer and WH-word, (iii) the fact why some complementizers precede topicalized/focalized constituents, whereas other complementizers have to follow them (Split-complementizer hypothesis). The division of (elements called) complementizers within the CP-area hinges on whether the relevant unit occurs before or after marked (or left dislocated/extracted) Topic/Focus;³⁴ see the discussion of the Bulgarian examples (19a) and (24) in §3.2. Still, one would like to know what counts as a complementizer, in the first place, or should we regard it as a gradable type of category, or simply as a mixed bag?

In the generative literature we find several representations of the CP-area, like those in (33a-c): (33a) is an adapted detailed template of the CP-area from Krapova (2021, p. 254),³⁵ (33b) is an earlier representation from Krapova (2001, pp. 106–107; for discussion cf. Pitsch, 2018, p. 58), and (33c) is from Ledgeway (2016, p. 1013) to illustrate different clause layers:

```
(33a) CORE1 - CORE2:
    Force Verid Fin
    +/-Q [+indicative] finite
    Modal [+subjunctive] non-finite

(33b) [CP C [MP da [TP T [VP ... V ... ]]]]

(33c) [LP Comp Top/Foc [CORE S (Aux) [VP (S) V O (X)]]]
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Authors are unanimous as for where Balkan Slavic da belongs: in (33b) it is considered the head of a "mood" constituent, according to (33a) it could be in any of the three layers (regardless of how they are dubbed), in (33c) Aux corresponds to MP in (33b), which, again, indicates that mood auxiliaries and complementizers might be difficult to distinguish. The only thing that seems to be unanimously accepted is that there may be even "higher" elements, or layers (to the left), able to take da, or mood auxiliaries, into their scope.

³³ For reviews cf. Nordström (2010, pp. 100–105), Krapova (2021, pp. 214–217).

³⁴ The same reasoning was applied by Roussou (2000) to Modern Greek.

³⁵ (33a) is adapted so as to show that CORE2 corresponds to the constituent which houses all layers contained under (or: right from) CP in (33b) and under Comp in (33c).

Again, all these approaches, despite their "technical" sophistication, leave out one issue: what makes the highest (or leftmost) head – or otherwise: the modifier with the widest functional scope (in most cases iconically reflected in its leftmost position of the clause) – turn into a "flag of clausal subordination"? In particular, this issue requires an answer for [T+]-clauses, that are morphologically finite, but nonetheless can bear markers of irrealis (often identified with subjunctive or non-veridicality; see §2.1), and which are all related to the cognition domain. However, this question is also relevant for operators of directive and/or optative speech acts, like those treated in §3.3.

Note, furthermore, that the degree of morphosyntactic tightness (= coalescence with some head), can be of secondary (if any) importance for widely accepted differences in functional scope relations: epistemic modifiers are placed higher in hierarchies (whether captured in a Cinque-like fashion, cf. Cinque, 2006, or as in FDG, cf. Hengeveld & Mackenzie, 2008, does not matter) than are deontic modifiers, and illocutionary force outscopes propositional content; on the other end of that gradient, clause union (or restructuring) phenomena imply low scope (and tight syntactic relations). However, Balkan Slavic *da* is always a verbal proclitic, regardless whether it occurs in main or dependent clauses with volitional semantics (e.g., in imperatives, Mac. *Da gi prečekate!* 'Welcome them!'), in complements of CTPs inducing weak epistemic support (see ex. 21b), or in control or raising-like constructions (the latter are mono-clausal anyway; see ex. 17).

The situation in North Slavic is slightly different: contrasts between BY-connectives and free subjunctive (clitic by + l-form) apply only in the cognition domain, because the free subjunctive cannot occur in complements of volition-related CTPs (including control and raising phenomena);³⁶ likewise, main clauses with BY-connectives are associated to volition, since practically all of them code directive or optative speech acts (see §3.1). As for clause linkage (i.e. the subordination issue), these facts may either be interpreted as confirming Givón's SIH, or as corresponding to clause union phenomena.

³⁶ For Czech, Kaspar (2016) assumes a template that amounts to a more detailed version of (33b), in which, however, *aby* is fixed to a lower position associated with IP (= TP in 33b). This conclusion hinges on the assumption that the reflexive clitic *se* always appears in IP and is adjacent to *aby* (e.g., *Jakub chtěl aby se to devče* (**se) *usmálo* 'Jacob wanted that girl to smile'). Moreover, *že* can occupy different positions in the CP-area, and probably for this reason Kaspar does not consider it a complementizer.

The difference between these theoretical frameworks ultimately consists only in whether one accepts assumptions about the primacy of syntax (in some conception of universal grammar) over semantics (and discourse pragmatics) or, alternatively, shares the conviction that, roughly, (morpho)syntax is but a symptom of semantics and communicative strategies inasmuch as syntax arises from the conventionalization of patterns shaped in discourse. The motivations for these diametrically opposed convictions belong to a meta-theoretical discussion (about fundamentals of linguistics and the epistemology of science), which is beyond the scope of the present contribution. However, regardless which arguments have been (and will be) used to justify one's basic theoretical assumptions, and whether one does find independent motivations for them, issues concerning mood, subordination and the role of clause-initial elements appear to be imprisoned in vicious circles. This should become evident also in the following subsection.

4.3. Mood auxiliaries and paradigmatic structure

Apart from the subordination issue, there still remains another dilemma concerning the question what counts as mood marker (and its potential of turning into a complementizer). For instance, Palmer (1986, p. 21) regards mood as a "morphosyntactic category of the verb", but then stretches the notion of inflection "to include what may have been described by authors as 'particles', if they have a fixed place in the verbal complex" (Palmer, 1986, pp. 43–44). That is, paradigmatic organization (= replacement conditions in slots) is considered to be of prime importance, and mood markers have to be related to the verbal complex, but the boundaries of the latter remain vague (similarly in Sampanis, 2012, p. 72). The relation to the verb is indisputable with clitics like Balkan Slavic *da*, which takes a fixed slot in strictly preverbal clusters (see §3.2). Pitsch (2018) therefore qualifies it as a 'mood particle', "which is in complementary distribution with the "modal clitics" Bulg. *ste* and *bi* (marking future and conditional, respectively); left to these elements (resp. their slot) we may only find a complementizer; see (33b-c) and (34):

(34)
$$[_{CP} C [_{MP} {\emptyset/\dot{s}te/da}] [_{TP} T [_{VP} ... V ...]]]]$$

(Pitsch, 2018, pp. 58, 69)

³⁷ By contrast, Sočanac (2012, p. 2) speaks of "an independent lexical item, which appears on the left periphery of the clause".

Apart from varying assumptions about the flexibility of complementizer positions within a CP-area (see §4.2), one wonders how a schema as in (33b) or (34) works in the case of North Slavic -by. When it occurs as an integrated part of BY-connectives, -by is oriented "leftwards" to the highest position identified with C. This fixed position has resulted from the agglutination of strictly enclitic -by to its former hosts and reflects its earlier 2P-behavior (see §3.1). This morphologization has created new lexical units in which the functions assigned to C and MP (resp. Aux) are merged (in a "non-technical" sense): speakers can only access these "ready-made" units (with their consequences for a restricted set of verb forms in the predicate), so to say, without an incremental process of marking parts of the CP area one after the other.

Moreover, Pol. *by* can even take the leftmost position without any morphological host (see ex. 1, 6b). This position is obligatory for SoA-clauses in the volition domain. Assuming that *by* is in MP (resp. Aux) would require that we also assume zero marking of C, and this would apply to all volition-oriented clauses with *BY*-connectives, including clause union phenomena. Of course, this would be nothing extraordinary since asyndetic complementation is widespread; but, again, the question arises whether an element which, first of all, marks illocutionary force should be considered a realization not only of MP (resp. Aux), but also of C, especially if such an element occurs clause-initially and is not preceded by any conceivable other realization of C (e.g., a default complementizer of the That-type).

In turn, by as a marker of the "free" subjunctive primarily occurs in cognition-related clauses (which code propositions); only in such clauses does it appear as an enclitic, and can be attached to the finite verb (l-form), while C may be occupied by a dedicated subordinating connective, e.g. Pol. $\dot{z}e$, Russ. $\dot{c}to$ (see §3.1). That is, only as "free" subjunctive would =by "behave" in accordance with the assumptions of (33b) and (34), whereas as segment in BY-connectives (associated to volition and restructuring) this morpheme is situated "higher" in the CP area; in linear terms, it is "farther away" from the verb and bound to a C-element, with which together it constitutes a lexical unit.

In summary: we are facing at situation in which by as an inextricable component of clause-initial connectives occurs in the leftmost part of the CP area and primarily in types of clause linkage that are tighter both structurally and semantically (in terms of the SIH) than those types of clause linkage in which the "free subjunctive" may occur (marked with clitic =by directly attachable to the l-form). As part of BY-connectives -by has lost the flexibility of a clitic and

occurs in the left periphery only by virtue of having fused with clause-initial hosts to new function words, whereas "free" =by still behaves like an enclitic and "enjoys more freedom" because it has lost its 2P-property.

A reviewer remarks that they "don't see a problem with *by* moving to different projections in different types of complement". The question is what stipulates such projections (which probably imply different operations of Move and Merge) and where do we find a motivation for them that does not depend on theory-internal assumptions.

Finally, what about *DIR*-units, i.e. free-standing morphemes like Russ. *pust*', Pol. *niech*, or Cz. *at*'? They mark directive or optative speech acts and often occupy clause-initial position. While they occur in indisputable main clauses (regardless of their clause-internal position), they also show up in contexts which have made linguists think about their possible status as mood auxiliaries and/or complementizers. More particularly, we wonder how *DIR*-units might relate to the CP area.

Auxiliaries are often established on the assumption that they create a mixed paradigm with other marking devices with which they share some general function (e.g., directive speech act), while they are complementary with respect to other distinctions (e.g., person-number agreement). First of all, this is assumed if two-word collocations share a core function with "synthetic" forms in which this function is marked by affixes. From this angle, mood auxiliaries look like fillers of paradigmatic gaps.³⁸ For instance, Russ. *davaj(te)* + 1PL.PRS.IND of a pfv. stem / infinitive of an ipfv. stem and *pust'/puskaj* + 3.PRS.IND (of either aspect) have been regarded as analytic imperatives of first and third person, respectively, since basically they mark the same illocutionary function (> directive) as does the "synthetic" imperative of the second person (cf. Hansen, 2004, 2010, pp. 332–335; Храковский, 1992):³⁹

(35) 1.PL	davaj(te) poguljaem / guljat'	'let's walk (together)'
2.SG/PL	poguljaj(te)	'walk!'
3.SG/PL	pust' (po)guljaet / (po)guljajut	'may s/he / they walk'

³⁸ For a different point of view cf. Молошная (1990, pp. 26–28). On the general point of paradigms with analytical word forms cf. Плунгян (2011, pp. 45, 61–66). The conception goes back to Смирницкий (1959, pp. 62–85).

³⁹ By contrast, Laskowski (1998, pp. 180–181) does not admit Pol. niech + 3.PRS.IND as an analytic imperative whenever this collocation is directed to a third person, i.e. a non-participant of the current speech act: the paradigmatic relation between a "synthetic" (2^{nd} person) imperative and analytical forms is blocked on the basis of deictic person reference. This reasoning reflects traditional thinking in Indo-European linguistics (Aikhenvald, 2010, pp. 47–48), and it looks like the opposite, e.g., of Dolinina's (2001) reasoning (see below).

Such cases seem to be quite widespread particularly in Indo-European and Semitic languages (Aikhenvald, 2010, pp. 47–73).

As (35) shows, the distribution of grammatical information (tense and person-number) may differ from construction to construction, and this seems to be a reason why the notion 'auxiliary' is vague. Compare modal auxiliaries as parts of complex predicates: Hansen and de Haan (2009, pp. 525-534) show that not all modal auxiliaries fulfil the requirement that the grammatical information be only marked on the auxiliary, while lexical content is contributed only by the verb which, at once, supplies the argument structure of the entire complex. Many South Slavic modals distribute grammatical information over both parts (modal + lexical verb); the future auxiliaries in Balkan Slavic (Bulg. *šte*, Mac. κe) "leave" the coding of person-number entirely to the lexical verb (in contrast to their SerBoCroatian cognates). An analogous point applies to candidates of 'mood auxiliaries' (or: to constructions assumed to represent 'analytic mood') like the aforementioned directive markers. 40 From these premises one can move into two directions: one may either widen the notion of paradigm, or point out circumstances that may be treated as an argument against strict replacement conditions.

Dolinina (2001) widens the notion of paradigms. She describes imperatives as speech act-related formations ("as a grammatical category which modifies not the verb, but the proposition", ⁴¹ Dolinina 2001, p. 504) and defines a paradigm as a set of constructions, which may include single-word forms (like the traditional, "synthetic" imperative) and periphrastic constructions. However, she denies clause frames like Fr. *Qu'ils aillent*.sbjv.3pl.! 'May they go!' the status of analytic verb forms; instead, they "combine a subordinative particle and a conjugated verb in the subjunctive mood" (Dolinina, 2001, p. 502), i.e. a connective considered to indicate subordination and a "synthetic" subjunctive. Nonetheless, she admits that such combinations can be considered members of looser paradigmatic sets of constructions. Of course, the similarity of Fr. *Qu'ils aillent!* 'May they go!' and, say, Mac. *Da gi prečekate*.PRS.IND.2PL! 'Welcome them!' is striking, although in Macedonian, the inflected verb does not bear any special, "non-indicative" morphology, nor can *da* be regarded

⁴⁰ The difference between modal and mood auxiliaries consists in the basic semantic contrast: mood is conditioned by ir/realis (and concomitant illocutionary) contrasts (see §2), while modals are based on a contrast between possibility and necessity.

Here, 'proposition' is used in a loose sense, as it actually implies SoAs void of anchorage to a single asserted time interval (see §2).

as a subordinator *per se*. Therefore, one wonders about borderlines between tighter collocations of forms (periphrases) and clausal frames, i.e. clause types with a connective whose semantics fits the relevant illocutionary distinction (see §4.4).

In turn, Добрушина (2019) denies Russ. pust'/puskaj + PRS.IND paradigmatic status, because (among other reasons) in a minority of cases pust'/puskaj also combines with the subjunctive (by+l-form); see (36). She argues that grams representing categories of the same type (here: mood) usually do not combine with each other, but enter into complementary distribution. Against this argument one may object that the combination of markers from the same overarching domain is nothing unusual, but, as a rule, the meanings of the combined markers are not really identical, they only overlap. In particular, distinctions on word or clause level that are <u>closely related</u> functionally, are nonetheless <u>not identical</u> in function (cf. Kehayov, 2017, pp. 46–49; Wiemer, 2023a, pp. 206–208). This explains why combinations of markers which are somehow related to irrealis (e.g., Russ. pust' + [by + l-form]) yield compositional readings: pust' contributes its directive (or optative) meaning to the more general meaning of an unrealized event marked by the by-subjunctive; the latter can be epistemic and mark hypothetical or counterfactual propositions, whereas the function of *pust*' is more narrowly based on volition, but it expands into the epistemic domain by acquiring a noncurative⁴² or concessive function; see (ii) for (36) from Добрушина (2019), who herself admits the transparent additive meaning:

Russian

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(36) Pust' pogib-l-o by vs-ë čelovečestv-o, a mal'čik ostalsja by živ!

OPT perish[PFV]-LF-SG.N IRR all humanity[N]-SG.NOM
```

- (i) 'Let all humanity perish, but the boy would remain alive!'
- → noncurative
- (ii) 'Even if all humanity (had) **perished**, the boy would remain / would have remained alive!' → concessive
- (RNC, n.d.; F. Iskander. Son o Boge i d'javole. Znamja. 2002)

The functional scope relation between *pust*' and *-by* corresponds to the linear sequence, as the paraphrase in (36)' illustrates; the *l*-form is required by the lower scope unit *by*:

(36') p_{ust} [even if I accept p_{ust} [the condition (that) p: all humanity perishes / has perished] ...]

⁴² 'Noncurative' means that the speaker accepts a given state of affairs (or proposition), but is indifferent to it. In concessive usage, the speaker points out that an admitted proposition does not justify (or cause) another proposition (or some activity).

An analogous point can be made for equivalent units in Polish (*niech*) and Slovak (*nech*), which, in corpora, are amply attested with -*by*. Example (37) demonstrates both a noncurative [1] and an optative use [2] in a row; these two meanings are spelt out roughly in (37') and (37"):

Polish

- (37) Dobrze, [1] **niech by** i tak było, ale [2] **niech by** było cokolwiek. 'Okay, so **be** it, but **let** there **be** (at least) something.' (PNC, n.d.; sprawozdanie z Senatu RP, 1996)
- (37') [1] $_{niech}$ [I (am ready to) accept $_{by}$ [the possibility (which seems to be a fact) p]], but
- (37") [2] $_{niech}$ [I wish (that) $_{by}$ [at least some SoA become true]].

4.4. Paradigmatic relations between clause types

To say more, replacement conditions can also obtain between clause-initial units which mark some meaningful relation to the preceding context. Compare the corpus example (36a) with its modifications in (36b-c):

Polish

- (38a) **Powiedz mu, niech** jutro <u>przyjdzi-e</u> do kantor-u. say[PFV]-(IMP.SG) 3SG.M.DAT DIR tomorrow come[PFV]-(FUT.3SG) to cantor-GEN 'Tell him, **may** he <u>come</u> to the cantor tomorrow.'

 (PNC; Wł. St. Reymont: Ziemia obiecana. 1898)
- (38b) **Powiedz mu**, **a.by** / **by** jutro <u>przyszed-ł</u> do kantor-u. say[PFV]-(IMP.SG) 3SG.M.DAT COMP.IRR tomorrow come[PFV]-LF-(SG.M) to cantor-GEN 'Tell him **that** he <u>come</u> to the cantor tomorrow.'
- (38c) *Powiedz* mu, że jutro <u>ma przyj-ść</u> do kantor-u. say[PFV]-(IMP.SG) 3SG.M.DAT COMP tomorrow AUX.PRS.3SG come[PFV]-INF 'Tell him **that** he <u>is supposed to come</u> to the cantor tomorrow.'

The clause introduced by *niech* in (36a) marks a directive speech act. The *niech*-clause does not lose its own (directive) illocution, and this speaks against subordination; nonetheless we are tempted to count this as an example of complementation for reasons discussed in §4.1: *powiedzieć* requires an argument coding the content of speech and the *niech*-clause exactly fits this purpose, even if it counts as direct speech. Irrespective of this, *niech* can be replaced by *aby* or *by* in (36b); this would not change the speech act, but *aby*, *by* trigger the *l*-form, whereas *niech* goes with the indicative non-past. Finally, (36c) demonstrates yet another way to roughly "say the same" in relation to the preceding conjunct: the standard complementizer $\dot{z}e$ is employed together with a modal auxiliary (*mieć* + infinitive). Here, the information concerning

reality status has been distributed over the second conjunct in yet another way: the complementizer ($\dot{z}e$) does not specify anybody's attitude, instead this function is fulfilled by the auxiliary.

A similar point has been observed for Cz. *at*. Petr (1987, p. 494) characterizes *at* as "přací částice, která v postpozici [i.e. in adjacency to a preceding clause; BW] nabývá funkce spojovacího výrazu"; further *at* is considered as a subordinator on a par with *aby* and *že* (Petr, 1987, pp. 512–514),⁴³ obviously with the same reasoning as exposed above; compare (39) with (36):

Czech

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(39) Otec mi nařídil,

(a) aby=ch vynes-l smet-í

COMP.IRR=1SG carry.out[PFV]-LF-(SG.M) garbage-ACC

(b) at' vynes-u smet-í.

DIR carry.out[PFV]-PRS.1SG garbage-ACC

'Father told me to carry out the garbage.' (lit. '...that / may I carry out the garbage.')
```

The same would apply to Slk. nech (M. Ivanová, p.c.).

5. Conclusions

The last discussion brings us back to the question how far we want to "stretch" the notion of paradigm or, more neutrally: which is the maximal format of constructions that can be arranged in a paradigmatic fashion (see §4.3)? More particularly, how tightly have components of assumed mood constructions to be integrated into the verbal complex? Or, conversely, under which conditions can elements integrated into units other than verbs, such as clause-initial connectives, be considered (components of) mood? In view of the often very vague notions of 'mood', and likewise vague notions of 'complementizer' (or 'subordinate conjunction'), these questions acquire paramount importance. If both notions are to be used in parallel, and in cross-linguistic comparison, clear delimitations are warranted, the more so since distinctions of mood and complementizer choice reflect operations on clause level, that is, these creatures do not differ in their semantic scope.

⁴³ Grepl and Karlík (1998, p. 454) treat *at* as an "opisná imperativní forma" of 3rd person, but do not consider its use as a complementizer.

Clear delimitations between mood (auxiliaries) and complementizers (or, more generally, left-edge connectives) do not exclude the possibility that, provided these notions are otherwise well-defined, their representatives can be arranged on gradients which, as it were, run into one another. As a consequence, representatives in the middle of such a cline (or: at the respective edges of their categories) are really those creatures that are difficult to categorize, but for objective reasons, namely: for the reason that they fit criteria from either category which were established independently beforehand, and not for the reason that 'mood', 'complementizer' (or other relevant notions) are just labels employed promiscuously on the basis of arbitrarily chosen sets of different criteria. Alternatives would be, of course, to either discard one of these terms in favor of the other, or to do without both and just speak about clause-level operators. However, this would possibly deprive us of useful criteria for typological classifications, which, as we see, are relevant for differentiations even within a language group like the Slavic one.

It seems advisable to define criteria that specify the morphosyntactic format of expressions and that are sensitive to the distribution of clause types; the latter, in turn, should be distinguished on the basis of illocutions and the liability for embedding. This, in turn, brings us to the issue of subordination, which likewise is a vague notion. Provided one accepts that subordination should be captured on a gradient, we should, first, bother about criteria that specify morphosyntactic structure and, second, ask for the employability and interpretation of egocentricals, such as person deixis (are there obviation effects or shifts according to reporting speakers?) and illocutions (when and to which extent do they survive?).

In contrast to morphosyntactic notions, ir/realis has here been treated as a purely semantic concept; the same applies to practically synonymous distinctions like 'non/veridicality'. I hope to have shown with distributional facts that this domain should be split into two subdomains, one related to volition and the coding of states of affairs, the other related to cognition and the coding of propositions (with weakened epistemic support). Each of these subdomains associates with different types of illocutionary force, basically along the distinction between directive and assertive speech acts. Concomitantly, these subdomains associate with different "sections" on hierarchies of semantic integration (see §2.2): volition-related types of clause linkage correlate with sections characterized by high semantic integration; these sections are associated to clause union (or restructuring) phenomena. In the last

resort, linguistic approaches differ only as for whether semantics is assumed to motivate (morpho)syntax, or vice versa. However, when it comes to relating morphosyntactic coding of ir/realis distinctions and to distinguishing (auxiliaries marking) '(subjunctive) mood' from 'complementizers', we notice that some of the assumptions inherent to templates of clausal architecture accepted in formal syntax (see (33) and (34)) are difficult to reconcile with the "surface coding" of various irrealis meanings; in particular, this holds true for distributional patterns that distinguish *BY*-connectives from the "free" subjunctive in North Slavic (see §4.3).

Finally, another point to be emphasized is that, even though clausal complementation presupposes syntactic tightening (with concomitant asymmetry) between adjacent clauses, clause-initial elements need not count as complementizers even under favorable conditions of "semantic concord" (see §4.1). A reliable diagnostic of complementation should therefore be based on other criteria than there being a possible "flag" of dependency which, under closer inspection, may turn out as indicating just discourse dependency. As far as I can see, neither formal approaches nor functional-typological approaches to clause linkage provide any principled answer to this methodological issue of data analysis. In fact, it really is a conundrum, regardless of the framework.

Notably, formal frameworks assume that complementizers are further left (or higher) from mood auxiliaries (see (33a-c)); this is but another way of spelling out the assumption that verb-oriented elements, or components of complex predicates, are more likely to occur closer to "their" verb in linear sequence. Now, if we turn around this assumption and observe that auxiliary-like elements, like *DIR*-units, tend to occur at the very left edge of clauses (and often disjointly from the finite verb), would this be an argument in favor of their becoming clausal connectives, or even complementizers? Again, how can tightening between adjacent clauses, or the difference between syntactic dependency and "mere" discourse dependence be determined? Of course, there are tests of embedding like insertion or fronting; however, with questionable units, like *DIR*-units, such phenomena are extremely rare in real data, or they are judged altogether inadmissible. What are we to conclude from these negative facts?

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LIST OF ABBREVIATIONS

CNC - Czech National Corpus (n.d.).

GC - Gigafida Corpus (n.d.).

PNC - National Corpus of Polish (n.d.).

RNC - Russian National Corpus (n.d.).

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Spójniki inicjalne w zdaniach składowych, związane i niezwiązane. Wskaźniki trybu, podrzędności czy czegoś bardziej fundamentalnego?

Artykuł stanowi kompleksowe omówienie dystynkcji, które w różnych tradycjach języko-znawczych są związane z pojęciami "trybu" i "włącznika", w szczególności w związku z potencjalnymi wyrazami pomocniczymi "analitycznego trybu (nieindykatywnego)". Na podstawie wyboru reprezentatywnych jednostek i ram zdań składowych analiza wskazuje na różnice między (a) językami północno- i południowosłowiańskimi (w szczególności bałkanosłowiańskimi) oraz (b) wypowiedziami ufundowanymi na woli i poznaniu, które rozróżniają (i) różne rodzaje illokucji oraz (ii) zdania składowe kodujące stany rzeczy (tj. zwykłe sytuacje) i sądy (tj. zdarzenia o określonym zakotwiczeniu w przestrzeni i czasie). Tok analizy nieuchronnie prowadzi do kwestii znakowania trybu irrealnego i skłania do pytania o rozpoznawanie 'podrzędności'

(zanurzania), w szczególności tego, czy elementy lewostronne mogą same w sobie być uważane za włączniki, nawet jeśli w określonych okolicznościach należy założyć ich status podrzędny.

Słowa kluczowe: języki słowiańskie; uzupełnienie zdaniowe; spójnik inicjalny; tryb; opozycja realis-irrealis

Clause-initial connectives, bound and unbound: Indicators of mood, of subordination, or of something more fundamental?

The article presents a comprehensive discussion of distinctions which, in different linguistic traditions, are associated with the concepts of 'mood' and 'complementizer', in particular in connection with potential auxiliaries of 'analytical (non-indicative) mood'. On the basis of a selection of representative units and clause frames, the analysis points out contrasts between (a) North and South (in particular, Balkan) Slavic and (b) volition- and cognition-oriented utterances, which distinguish (i) diverse kinds of illocutions and (ii) clauses coding states of affairs (i.e. mere events) vs propositions (i.e. events with specific anchorage in space and time). The discussion unavoidably raises issues of irrealis marking and asks for the diagnostics of 'subordination' (embedding), in particular whether left-edge elements can by themselves be regarded as complementizers even if, under specific circumstances, subordination has to be assumed.

Keywords: Slavic languages; clausal complementation; clause-initial connectives; mood; realis/irrealis contrast

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z Markusem Gigerem]; Catching the Elusive: Lexical Evidentiality Markers in Slavic Languages (A Questionnaire Study and its Background) [Uchwycić nieuchwytne. Leksykalne wykładniki ewidencjalności w językach słowiańskich (Badanie kwestionariuszowe i jego kontekst), 2018]. Zainteresowania badawcze: aspekt i inne kategorie werbalne, zjawiska związane ze stroną, ewidencjalność i modalność, uzupełnienia zdaniowe (także z perspektywy diachronicznej i w odmianach niestandardowych), językoznawstwo kontaktowe i arealne.

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