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Construction Grammar as a tool for diachronic analysis*

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Through a discourse-grounded internal reconstruction that aims at capturing the *emergence* of grammatical structure, the study examines the development of the subjective epistemic particle *jestli* '[in-my-opinion-]maybe' in conversational Czech. Through internal reconstruction, the change (syntactic complementizer > speaker-centered epistemic contextualizer > subjective epistemic particle) is presented as a metonymy-based conventionalization of a pragmatic meaning implied by certain tokens of indirect Y/N questions into a new modal meaning. Taking a Construction Grammar approach, so far largely untested on diachronic data, the point of the analysis is to show that we can engage in a systematic treatment of the gradualness of change, by (i) combining the 'holistic' (constructional) dimension with the internal, feature-based and discourse-motivated mechanisms of complex grammatical shifts, and (ii) appealing to the explanatory potential of general cognitive and communicative principles as they manifest themselves in natural discourse. I also propose a formalism for representing the transitional nature of intermediate patterns.

Keywords: grammatical change, gradualness of change, internal reconstruction, indirect Y/N questions, grammaticalization, pragmatic strengthening, transitional context, subjective modality, usage-based motivation, Construction Grammar

1.   Introduction

The purpose of this paper is to explore the role of semantic and pragmatic triggers of grammatical change as they manifest themselves in natural discourse, and to illustrate a particular method of capturing the complexities of such a change. It has been increasingly acknowledged in diachronic analyses (most recently Bergs & Diewald 2008, also Traugott forthcoming a, b, Lindström & Londen 2008, Matsumoto 2008) that if we wish to capture systematically the dynamic nature of grammatical structure and to motivate the direction and shape of its changes, we must take into account the speakers' communicative involvement in concrete discourse situations and the role of general cognitive principles in facilitating new conceptualizations. By close examination of actual language use, we can begin answering questions about the nature of speakers' linguistic knowledge and its reorganization over time. I will pursue the hypothesis that a fundamental source of motivation for the gradual reinterpretation and subsequent re-categorization of linguistic form must be sought in the details of the natural *context*(*s*) in which a given change may take place as part of the on-line production and reception.

Change will thus be treated as a process that originates in language use (i.e., specific linguistic expressions in specific communicative circumstances) but I will try to capture the process of gradual conventionalization, which results in establishing new constructions (i.e. abstract pieces of grammar). This task requires a sufficiently integrated, multi-dimensional analytic approach and I will argue that a natural candidate is Fillmorean Construction Grammar (e.g. Fillmore 1989, Fried & Östman 2004; a foray into a diachronic application in Fried 2008 and in press) with its layered formalism that can accommodate both the constructional dimension of grammatical change and the details of its internal mechanics, without according either dimension a primary status as the exclusive focal point of change. While the constructional framework was originally designed for synchronic descriptions of syntactic patterning, it offers useful tools for combining the methods and insights of two major approaches to diachronic analysis: (i) a 'holistic' approach (e.g. Croft 2001), which emphasizes change as a conventionalization of *complex patterns*, paying less attention to the details of the internal structure, and (ii) primarily diachronically oriented analyses, which tend to focus on identifying discrete partial changes that involve specific features of a larger pattern, emphasizing the gradualness of change (e.g. Timberlake 1977; Andersen 1987, 2001; Traugott 2003; Harris 2003). I will demonstrate that Construction Grammar is well equipped not only for identifying the relevant partial changes but also for placing them in their syntagmatic and communicative context, thus establishing the mutual relationship between any small-scale, feature-based transitions and the larger patterns they occur in, thus keeping in focus the gradient nature of linguistic change.

1.1 Material

The constructional approach will be demonstrated on one particular development of the grammatical lexeme *jestli* 'if/whether' in conversational Czech, where it forms a rich polysemy network, so far left largely unanalyzed. I will examine the word's properties across three distinct, synchronically co-existing syntactico-pragmatic variants, but the patterns of primary interest are the two forms exemplified below. In (1) we have instances of standard embedded Y/N questions, introduced by the lexeme *jestli*; this use is found in both written and spoken Czech. The main predicate in (1a) is a verb of not knowing, in (1b) a verb of asking, and in (1c) it is a fixed expression reporting a universal lack of knowledge, *čert ví* '[lit.] the devil knows'. In (2), the same word appears in a non-clausal structure and functions as a modal particle, here with a scope over a NP. Note that in spoken Czech, the standard written form *jestli*, shown in (1a), may appear in various phonetically reduced forms as well (*jesli, jesi, esi, esli*).[1] For easier orientation, the main predicate is underlined, the word *jestli*, including its English equivalent, is in boldface.

(1) a. *ale von je takovej v pohodě, já <u>nevim</u>, **jestli** tam byl ňáko nervózní*

[oral2006]

'but he's such a laid-back [type], I <u>don't know</u> **if** he was at all nervous there'

b. *a vono se tě to eště <u>zeptá</u>, **jesli** to chceš smazat včetně podadresářů, jo*

[PMK]

'and then it <u>asks</u> you, **if** you want to delete it including the subfolders, y'know'

c. *<u>čert ví</u> **jesi** je to socialismus. že všichni mají stejné mzdy ať dělají jak chtějí takže se mohou všichni stejně ulejvat* [BMK]

'<u>who knows</u> **if** this is socialism, [the fact] that everybody gets the same salary whether they work or not so that everybody can be the same slacker'

(2) *a tak NJ nešel, že jo, no tak potom ho, potom ho volal, někdo mu volal, **jesi** NP nebo kdo že už, že už de rovnou* [oral2006]

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1. The reduced forms occur in spoken Czech only; they would not appear in written texts other than in written renditions of the vernacular. The transcription in the corpus is based on standard Czech spelling; in the case of this lexeme, the spelling corresponds fairly closely to the phonetic shape: the initial *j-* represents a palatal onset of the following vowel, while the initial *e-* is phonetically preceded by a glottal stop. Throughout this paper, I will refer to all the variants only as the lexeme *jestli*, unless reference to a specific form is necessary. We may note, though, that there are clear differences in their relative frequency. The corpora used in this study show the following distribution (in number of tokens): *jestli* (2800), *jesi* (1291), *jesli* (1151), *esi* (178), *esli* (47).

> 'and so NJ was not coming, right, well and so then somebody called him,
> **I-think-maybe** NP or somebody, that, that he's going straight [there]'

The basic question is how type (2) may have developed out of type (1), assuming that there is a genetic relationship between them, instead of just dismissing these uses as a case of random homonymy. My goal is to show that once we engage in a detailed analysis of the environments in which the interrogative JESTLI occurs in natural spoken discourse, we can (i) identify various transitional patterns that provide evidence for the diachronic relationship between the two uses and (ii) isolate specific discourse-pragmatic, semantic, syntactic, and phonetic criteria that account for the direction of change from a syntactic complementizer in (1) to a modal particle with subjective epistemic meaning in (2). I will suggest a way of articulating an explicit representation of the relationships and the diachronic paths in such a way that we can capture also the layering (Hopper 1991) effects that are clearly present in the network.

1.2   Theoretical and methodological prerequisites

The assumption that conventional grammatical structure emerges gradually from language use calls for authentic (preferably spoken) data as the most informative empirical source. I will draw on material taken from the four spoken corpora (PMK, BMK, oral2006, oral2008; about 3.2 million words altogether) within the *Czech National Corpus*. The spoken corpora are annotated for age, sex, education, and discourse type, but so far untagged for any linguistic features, except for indicating basic prosodic contours and the relative length of pauses. While the present study is based mostly on qualitative analysis of the corpus data, some frequency-based evidence will be used as well.

The constructional analysis naturally accommodates the assumption that indexicality (in the sense of Anttila 1972, i.e. metonymic transfer as a relevant reasoning strategy) plays an important role in grammatical re-organization. If the behavioral properties of JESTLI can be treated as an integral part of complex grammatical signs (constructions) that are formed by clusters of various features (formal, functional, semantic), which either individually or collectively participate in a given diachronic process, we can easily motivate a development in which an internal constituent of a construction becomes entrenched as an index that by itself invokes the semantics of the whole construction. I will argue that the subordinate JESTLI-clause goes through an emancipation process in which it first becomes a free-standing clause that incorporates the meaning of the erstwhile main predicate, and gradually also an independent particle that modifies non-clausal con-

stituents. We thus observe a chain of shifts as follows: syntactic complementizer > speaker-centered discourse contextualizer > subjective epistemic particle.[2]

Finally, in assuming a general direction of change from propositional content toward non-propositional functions, the work is aligned with the insights and analytic methods of that strand of grammaticalization studies which links changes in grammatical structure to its potential for developing into markers of (inter) subjectivity (esp. Traugott 1982, 1988). The changes examined in this paper will be presented as a case of pragmaticization, i.e., a special type of grammaticalization, which results in a crystallization of a pragmatic meaning that arises due to specific contextual features, both syntagmatic and communicative.

The present analysis amounts to an internal reconstruction based on a synchronically attested polysemy of the word JESTLI. Given the nature of the material used in this study (conversational language), it is next to impossible to gather textual evidence that would lead to establishing a relatively precise chronological point at which the usage in (2) or the transitional forms that led to it started to appear. However, the available historical data leave little doubt that the complementizer usage shown in (1) can be taken as the older function. The form JESTLI is itself the result of a grammaticalization process, already under way in Old Czech and completed by the early 1800s.[3] It arose from the interrogative phrase *jest li* 'is [it]?', consisting of the 3sg. present tense form of the verb *být* 'be' and the pan-Slavic interrogative particle *li*; as a question morpheme, the particle *li* is completely lost in Modern Czech. The literal usage of the phrase is illustrated in (3), which shows an early attestation in (3a) and its persistent use into the late 1400s in (3b). In both cases, the embedded interrogative clause is indeed headed by the verb *jest* '[he/she/it] is', following a clause with a verb of finding out (*poznat* 'find out', *vptáti* 'ask'); note also that the interrogative particle was sometimes written as a separate word (3a). Both examples happen to involve a disjunctive question and were chosen because they show explicitly that the form *jest* is on a par with any other finite verb: in (3a) in contrast to another verb with its own, different subject, and in (3b) in contrast to the negative form *nenie* 'isn't'; the usage, however, was not limited to disjunctive questions.

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2. A similar process of emancipation can be observed with other subordinate clauses as well (e.g. *že* 'that'-clauses, *aby* 'lest'-clauses, conditional clauses, etc.). It is thus a broader issue, not a special quirk of the embedded Y/N questions. To my knowledge, systematic research of this general phenomenon concerning Czech subordinate clauses is yet to be conducted.

3. This is a preliminary judgment based on the distribution in the historical corpus DIACORP within the *Czech National Corpus* and sufficient for our purposes. However, the full (and complex) history of this complementizer is still waiting for systematic research.

(3)   a.   *Budeli kto chtieti voli jeho učiniti, <u>pozna</u>   z   učenie,*
               find.out.PRES.3SG from teaching[4]
        ***jest li** z   boha čili sám   ot   sebe mluvím.*
        is   Q from God or.Q alone from self speak.PRES.1SG
        'If someone_i has the desire to fulfill his [=God's] will, he_i <u>will know</u> from
        the teaching [itself] **whether** [it] **is** from God, or **whether** I'm speaking
        my own [words]'   [BiblDrážď J 7,17; 1380]
        [at issue is the question whether the listener has the will to recognize
        that the preacher's words are those of God (i.e. come from God), or the
        preacher's own]

   b.   *bylo na purkrabí   Hradeckého vzneseno   a <u>vyptáno</u>,*
        was on town.mayor Hradec.ADJ appeal.PASS.SG.N and ask.PASS.SG.N
        ***jestli** to   manstvie k tomu   hradu,   či nenie*
        is.Q that estate   to that.DAT.SG castle.DAT.SG or NEG.is
        'the town mayor in Hradec was appealed to and <u>asked</u> **whether** that
        estate belongs [lit. **is**] to that castle or doesn't [lit. isn't]'
                                               [ArchČ 37/1, 88; 1476, admin. records]

In these cases, the scope of the interrogative particle *li* is clausal, by virtue of be-
ing attached to the finite verb. If it was just a single constituent that was to be
questioned, the particle often attached directly to that constituent, as illustrated
in (4):[5]

(4)   *aby úředníci to viděli a <u>ohledali</u>,   potok-**li**   jest či řeka*
                          find.out.3PL stream-Q is   or river
        'so that the administrators would look at it and <u>find out</u> **whether** [it] is a
        stream or a river'   [Půh 4, 334; 1464; legal records]

   The change that led to establishing *jestli* as a general interrogative comple-
mentizer evidently had to involve the spreading of the whole phrase to clauses
headed by verbs other than *jest* 'is' (below enclosed in brackets). We find attesta-
tions of this usage at least as early as in the 15th century (5a), i.e. contemporane-
ous with (3b), but by the 1700s, the pattern appears quite commonly (5b), even
expanding to non-indicative mood (5c). The numbers following the corpus name
date the examples.

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4. Abbreviations in the glosses: PRES 'present tense', SG 'singular', ADJ 'adjective', PASS 'passive', N
'neuter', DAT 'dative', NEG 'negative', Q 'interrogative'.

5. The placement had to do with contrastive focus, which was the functional origin of the par-
ticle *li*; hence also its obligatorily sentence-initial position. This connection is outside the scope
of this paper and is also irrelevant to the fate of *jestli* at its stage of a fully grammaticalized
complementizer.

(5) a. *Také mi daj <u>věděti</u> o p. Burianowi, **jestli** wálí s Němci*
'Let me also <u>know</u> about Mr. Burian, **whether** <he's fighting with the Germans>'

[ArchČ 3, 385; 1476; personal correspondence]

  b. *Též i čuchem <u>se pozná</u>, **jestli** po dešti dobrou neb zlou vůni z sebe vydává*
'one can also <u>find out</u> by sniffing **whether** <it [= soil] gives off good or bad smell after a rain>'   [DIACORP; 1705]

  c. *<u>Kdo ví</u>, **jestli** bych ji na jinou cestu nepřivedl.*   [DIACORP; 1792]
'<u>Who knows</u> **whether** <I might have given her [life] a different direction>.'

Based on these facts, the historical precedence of the complementizer function of *jestli* is a reasonably plausible starting point for examining the status of *jestli* in other functions, of which I have found no evidence in the available sources of historical data.

The paper is structured as follows. Section 2 examines the role of certain intermediate contexts that suggest an erosion of the syntactic function of *jestli* as a complementizer toward the role of an utterance-based contextualizer. Section 3 focuses on the properties of the modal particle status of *jestli* (2), also in comparison to its seemingly most natural but not fully synonymous counterpart, the epistemic particle *asi* 'maybe/perhaps'. Section 4 synthesizes the findings and situates the observed changes in a set of preferential contextual features that facilitate the re-categorization of *jestli*. This also leads to summarizing the theoretical implications for the broader question of capturing grammatical change in a systematic manner, so that we can arrive at appropriate generalizations without losing sight of the necessary detail. Section 5 briefly concludes the paper.

2. From embedded interrogatives to free-standing evaluative assertions

2.1 Interrogative *jestli*-clauses

Let us start by summarizing the familiar: the basic, conventional properties of Czech embedded Y/N questions, illustrated in (1).

(6) a. <u>Semantics of main predicate</u>: 'uncertain knowledge'
the predicates cluster around four major semantic types (here listed in descending token frequency across the four corpora): predicates of not knowing (e.g. *nevědět* 'not.know', *zapomenout* 'forget', *těžko říct* 'hard to say'), asking/finding out (e.g. *zeptat se* 'ask', *zjistit* 'find out', *být zvědavý* 'be curious'), deliberating/selecting (e.g. *přemejšlet* 'deliberate', *posoudit*

'evaluate', *záleží* '[it] depends', *vybrat* 'select'), and communicating (e.g., *oznámit* 'announce', *domluvit se* 'come to an agreement', *hádat se* 'argue').

b. <u>Substitutability</u> (stylistically conditioned):
JESTLI can be substituted by its more formal synonym *zda* 'whether'.

c. <u>Relative order of clauses:</u>
the canonical, information-structurally neutral order is [main V$_{theme}$ – *JESTLI*-clause$_{rheme}$], although the inverse order is possible, subject to information-structure considerations.

d. <u>Compositional meaning</u>:
the sentence reports someone's uncertainty about the proposition expressed by the *JESTLI*-clause.

e. <u>Pragmatics</u>: there are no restrictions on register, genre, or text-type.

These features can be organized in a schematic constructional representation, shown in Figure 1. The left box represents the main predicate, which has to come from a particular semantic class of verbs, indicated in the *frame* statement. The main predicate has to contain, among other things, at least one participant (frame element, FE) expressing a proposition, which corresponds to a Content argument in the valence of the predicate. This information is entered in the form of a *val*(ence) statement at the bottom, through the matching index (#1). The same index marks also the box on the right, indicating the fact that the content of this box corresponds to the main predicate's non-subject argument (the Content role) and is its syntactic sister. This argument takes on the form of a *jestli/zda*-clause, introduced by one of the two possible lexical items (specified in the lexeme (*lxm*) statement) and followed by a full clause which contributes the content of the Y/N
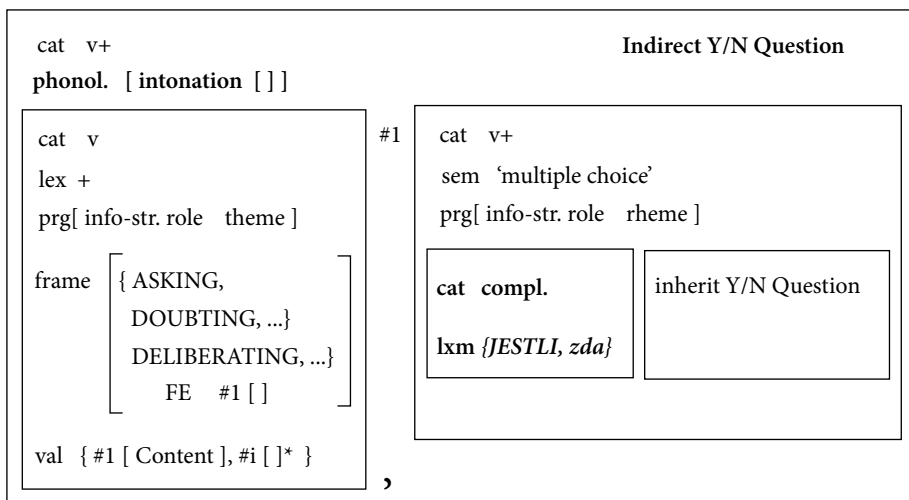

Figure 1. Canonical indirect Y/N question.

question. The subordinate clause has the semantics of Y/N questions: it has to do with the expectation that one possible answer will be chosen out of at least two potential options; in the diagram, this meaning is simply glossed as 'multiple choice'. Finally, the comma separating the boxes indicates that the order of clauses is not inherently fixed;[6] the abbreviation *v+* stands for a clause.

This representation is instantiated in a straightforward way in (1a–c). However, in actual discourse, we find all sorts of cases that deviate from the canonical shape, thus creating the potential for shifted interpretations, which, then, may lead to new conceptualizations and categorizations. We consider some of these 'imperfect' instantiations in the following section.

2.2 Transitional contexts

Seemingly unremarkable might be the cases of simple inversion: the JESTLI-clause is followed by the main clause but otherwise the construction in Figure 1 appears to be fully instantiated. This inversion occurs in two different information-structure configurations. One (7) is motivated by switching the discourse roles between the two clauses and is thus a trivial case of word order change; this pattern is irrelevant to our concerns. The other, however, shows a switched order even though the Y/N clause maintains its (expected) rheme status (8).

(7) A: *ale už tam neni, no, já <u>nevim</u>, **jesi** jí někdo zničil* [PAUSE]
     B: *neukrad jí někdo*?
     A: [PAUSE] *nebo **jesi** jí někdo ukrad, <u>nevim</u>.*
     B: *tak si, tak si kupte s Pájou, ne, na pokoj.*
     A: *ale tak mi jí nepotřebujem.*   [oral2008]

     A: 'well but it's gone, <u>I don't know</u> **if** somebody broke it [PAUSE]'
     B: 'did someone steal it?'
     A: '[PAUSE] or **if** someone stole it, <u>I don't know</u>'
     B: 'then, then buy one, you and Pája, for your room'
     A: 'but we don't really need it'

(8) A: [LONG PAUSE] *dneska žádnou návštěvu nečekáte*?
     B: *no, **jesi** příde teta, já <u>nevim</u>.*

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6. As is well known, word order is marked positionally in Czech, neutrally in the theme-rheme pattern. Rhematic elements (i.e. the most informative part of an utterance) are automatically expected at the end of a sentence, without any special prosodic marking. Thematic elements, as the contextually bound part, are either placed sentence initially or simply left out. The opposite, rheme-theme, order is possible as well but it is a marked linearization pattern and serves special expressive needs. This is handled by linearization constructions, which organize sentences in terms of informational categories and are independent of the constructions discussed in this paper.

A: *teta, hmm.*

B: *vona většinou chodí každej den, dyž jí neni špatně, a dyž je jí špatně, tak*
    *potom nepříde. tak <u>nevim</u>, **jesi** příde nebo ne.* [oral2008]

A: '[LONG PAUSE] Are you expecting any visitors today?'

B: 'well, **if** [my] AUNT COMES, <u>I don't know</u>.'

A: 'oh yes, aunt'

B: 'she usually comes every day if she's not feeling sick but when she's sick
    she doesn't come. So <u>I don't know</u> **if** she'll come or not.'

In (7), the issue of someone stealing a microwave is already in the conversation: speaker B sets it up in the question and speaker A only comments on the fact that she does not know if the hypothesis of theft is the correct answer to the disappearance of the microwave. In contrast, the first instance of the Y/N question in (8) introduces the potential presence of the aunt for the first time; the aunt was not in the conversation preceding this excerpt and B's turn is thus either all rhematic in terms of its informational value, or at least the JESTLI-clause certainly is; the status of the 'I don't know' clause is much less prominent as a potential novel contribution to the conversation and could possibly be analyzed as thematic, as an expected alternative answer that is always implicit within a question-answer sequence. The rheme-first (or rheme-only) structure of B's first turn contrasts with B's second turn, in which she chooses the neutral order. Given the fact that both forms express essentially the same content (the speaker's uncertainty about her aunt's presence), we may ask whether the rheme-first order colors the interpretation of the JESTLI-clause in any particular way, beyond emphasizing its 'newsworthiness' (cf. Mithun 1987 on this notion) by taking the sentence-initial slot. Before we formulate a potential answer, though, let us first consider a more elaborate case of inversion, in which the issue is not a theme-rheme articulation but a potential absence of the main clause altogether.

The inverted order often comes with quite a lot of additional material intervening between the Y/N question and its presumed (post-posed) main predicate. One such case is shown in (9), where the intervening material consists of another interlocutor's turn (turn 5) and the first speaker's pause (turn 6) before resuming his turn (we should also note that both the temporal distance between a JESTLI-clause and its main predicate as well as the syntactic and discourse-related complexity of the 'interruption' can be much greater than shown in this brief example). The exchange in (9) comes in the middle of a family conversation about various topics. The immediately preceding theme was focused on some birds outside of the house, as we see in the abrupt transition in A's first turn in (9) when he suddenly introduces a new topic; neither Mareček nor Alice were mentioned anywhere in the conversation preceding our excerpt.

(9)   turn
  1   A: *[…] a tam se procházela po tom, po tej eee, po tom chodníčku, víš, a tam se špacírovala a todle. tak Mareček prej eště nebyl doma.*
  2   B: *no, jak sme tady to, tak to sme ho viděli naposledy no. jako čekali sme ho včera večír ne, tak* [PAUSE]
  3   A: *hmm.*
  4   B: [PAUSE] *nepřijel, no tak* <u>*nevim*</u>*, jak je to,* **jesli** *je v krámě dneska* [PAUSE]
  5   A: *Alice asi jela až ráno ne?*
  6   B: [PAUSE] *nebo* **jesli** *jela ráno až a von šel pak rovnou do krámu nebo jak,* <u>*nevim*</u>
  7   A: *hmm. no moc se mu tam nechtělo do práce, jak bylo vidět.*
  8   B: *no to víš no.*
  9   A: *čekaj ho už jenom samý starosti no.*   [oral2006]

turn
  1   A: '[…] and it [= a starling] walked up and down that, uh, that little sidewalk, y'know, and it was strutting around and stuff. So I hear Mareček hasn't shown up at home yet.'
  2   B: 'well, last time we saw him that was when we were [doing] here the uhm. I mean we were expecting him last night, right, so [PAUSE]'
  3   A: 'hmm'
  4   B: '[PAUSE] he didn't come so <u>I don't know</u> how it is, **if** he's in the store today [PAUSE]'
  5   A: 'Alice probably didn't go till the morning, right?'
  6   B: '[PAUSE] or **if/maybe** she went in the morning and he then went straight to the store or something <u>I don't know</u>'
  7   A: 'hmm — well he wasn't eager to go to work, one could see that'
  8   B: 'well you know how it is'
  9   A: 'he has nothing but worries on his plate now'

The patterning is significant in that it provides clues as to the options hearers have in interpreting the JESTLI-clauses and 'assigning' a particular grammatical analysis to the status of the clauses as a type. When we consider the on-line communicative process as it unfolds in real time, it is clear that hearers are not always given an explicit signal that an embedded Y/N question is about to come. In (9), for example, speaker B (turn 4) starts by a relatively straightforward instance of an embedded Y/N question, but things are different with the JESTLI-clause in turn 6. After speaker B pauses, speaker A raises a question (turn 5) and then speaker B resumes with another JESTLI-clause and only after yet another short pause. Moreover, he picks up on A's immediately preceding question first: turn 6 starts by talking first about Alice ('she') and only then returns back to the original topic *von*

'he' of the first *jestli*-clause. This sequence suggests that the second *jestli*-clause (turn 6) can only tenuously, if at all, be seen as a straightforward continuation of the first token of *nevim* 'I don't know' (turn 4); speaker A evidently presents the second *jestli*-clause as a separate chunk of discourse, possibly with its own main predicate added afterwards, in a new token of *nevim* 'I don't know' (turn 6).

Given the context (trying to solve the question of someone's whereabouts, for which the interlocutors lack sufficient factual information) and the repetition of syntactically complete, albeit not formally identical, reported Y/N questions, we can hypothesize that the second instance (turn 6) can accommodate two categorizations: it can be taken as a less canonical Y/N question, but because of the inversion, the *jestli*-clause can also be conceptualized as relatively independent of the main verb. After all, speaker A has no guarantee that a main verb will indeed follow. It is also interesting to note that the pragmatic force of the *jestli*-clause in turn 6 is only very weakly interrogative; speaker B offers the proposition more as a suggestion that could even be taken by the hearer as a potential answer to her own question in turn 5, rather than another (indirect) question. This possibility is confirmed by A's follow-up in turn 7: A seems to accept B's turn as a contribution toward their collaborative attempt at solving the mystery at hand. Turn 7 is not a reaction to B's admission that he doesn't know something (turn 6) but a further elaboration on why B's reasoning seems on the right track. Consequently, the putative main clause takes on the flavor of a syntactically independent expression of evidentiality, presented as a kind of (redundant) afterthought intended to clarify explicitly the speaker's status as a source of information. In fact, this analysis is further corroborated by the combinations exemplified in (11) and (12) below, and is in keeping with Thompson's (2002: 155) proposal concerning similar quasi-subordinating patterns in English conversational discourse.

Viewed from this perspective, the simple inversion in (8) can be motivated by following a similar path. In (8), speaker B is expected to provide an answer to A's question and from the communicative point of view, the *jestli*-clause is much more informative than the fact that B 'doesn't know' (the main clause). She simply offers a plausible guess: 'maybe my aunt will come but I don't know for sure'. For this interpretation to come across, though, the *jestli*-clause must be presented as relatively independent of (or more prominent than) the main clause; in (8) this is achieved by the rheme-first structure, while in (9) there is also the physical distance and the intervening propositional content.

The lack of guarantee that a main clause must be present and will be provided is further corroborated by non-inverted instances of the following kind:

(10)   *řekla sem jim, **že** v tom městě provádim, nebo **že** provádíme, sociologickej*
      *průzkum v oblasti knihkupectví . nó, < **jesi** by mi byly ochotný odpovědět na*
      *pár otázek >, **že** se vlastně jedná, **že** se to pak bude statisticky zpracovávat*
      'I <u>told</u> them **that** I'm, well **that** we're conducting a sociological investigation
      concerning bookstores in their town, right, < **if** they were willing to answer
      a few questions,> **that** the issue is, **that** there will be a statistical analysis'
      [PMK]

Here we observe two things: the *jestli*-clause appears fully detached from its potential main clause and moreover, it is not even clear that the predicate creates an expectation of a *jestli*-clause appearing in the first place. Notice that the *jestli*-clause (enclosed in brackets <>, for easier identification) not only comes quite a distance after the potential main predicate, but this predicate, *říct* 'to say/tell' is not even a verb of indirect questioning and can only be associated with the *jestli*-clause by implication. Specifically, the verb is followed by a series of content clauses introduced, as expected, by *že* 'that', and the *jestli*-clause is inserted in the middle of the series, as an indirectly posed question that is just part of the stream of reported speech. Evidently, in such contexts, the *jestli*-clause can barely be considered as truly embedded in the clause *řekla sem jim* 'I told them', although its pragmatic force is still that of a reported interrogative.[7]

   The crucial point is that in spoken discourse, the *jestli*-clause can be interpreted by hearers as an indirect question even in the absence of an appropriate main verb, and hence can be perceived as a relatively independent linguistic unit whose overall meaning and function incorporates the core semantics ('lack of factual knowledge') of the main predicates that appear in the canonical structures. Put differently, the *jestli*-clause by itself appears to invoke, metonymically, the meaning of the whole complex sentence of which it is normally just a constituent.

   Thus, when we try to relate usages illustrated in (9), (10), and perhaps (8) as well, to the canonical construction in Figure 1, we see a conflict between the form and its function, at least according to the expected co-occurrence of certain definitional criteria for uncontroversial instances of this construction. In (9), we have the syntax of a standard indirect Y/N question but an unexpected communicative function (although the interrogative interpretation is still possible, of course), while in (10) the interrogative function is maintained in the absence of a semantically appropriate main predicate. The usage in (8) can be seen as somewhat intermediate but still one that allows an interpretive shift, however subtle.

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7. It must be stressed that independent questions are never marked by *jestli* (or, for that matter, by any other particle) in Czech, whether written or spoken; direct questions are marked only by intonation.

There are other indicators of partial detachment involving inversion and again, they offer the potential for a shifted interpretation. Sometimes the post-posed main clause contains a resumptive pronoun *to* 'that', which refers to the preceding *JESTLI*-clause as a whole, as illustrated in (11). The demonstrative pronoun is an explicit signal that the presumed subordinate clause is presented by the speaker as relatively independent of any governing predicate. At the same time, the interpretation of these cases can still be that of a reported Y/N question, in spite of a form that suggests two relatively independent propositions.

(11)   < **jesli** to budou dělat někdy jindy,>ᵢ *to*ᵢ <u>nevim</u>   [oral2006]
       '<**whether/maybe** they'll be doing this another time,>ᵢ that ᵢ <u>I don't know</u>'

Other times, the initial *JESTLI*-clause ends with a rising intonation typical of questions,[8] only then followed by *nevim* 'I don't know'. This prosodic contour suggests an additional break from the main clause, again inviting the hearer to interpret the *JESTLI*-clause as somewhat independent.

(12)   *jeden syn je v Anglii . a jeden pré je tady . v Praze nebo kde jo? tak von to .*
       @ von to za ňu obyčejně ten Komárek @ za ňu vyřizuje [PAUSE] < **esi** *je to*
       nejaká vzdálená rodina nebo co?> já <u>nevim</u>   [BMK]
       'one son is in England and one is supposed to be here, in Prague or
       somewhere, y'know. And so it's, it's this guy Komárek who usually takes care
       of this for her – < **if/maybe** it's some kind of distant relation or something?>
       <u>I don't know</u>.'

However, it is also worth pointing out that the standard embedded Y/N questions, whether in canonical or inverted/detached structures, show a clear propensity toward particular lexical fillers in the main clause. The corpus reveals that the main verb in those full sentences is very often the verb *nevědět* 'to not.know' (depending on the corpus, the number of tokens ranges between 50% and 65% of all verb types) and particularly, by far most often in the form *nevím* 'I don't know' — not any other semantically eligible predicate, nor any other form of the verb *nevědět*. For example, out of the total of 696 main verbs (tokens) introducing the Y/N questions in the two Bohemian Czech corpora (oral2006, oral2008), full 443 tokens are various forms of the verb *nevědět*, and out of these, 413 (93%)

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8. The question mark in the transcription indicates a Y/N question intonation (different from *wh*- question intonation), which in Czech is signaled by a sharply rising contour between the last two syllables; this is distinct from a simple comma intonation, which is marked by a half-cadence, i.e. by a distinctly less pronounced rise in pitch on the last syllable. According to Czech grammarians (e.g., Daneš 1957: 105–110, Grepl & Karlík 1989: 18–21), these are part of a well entrenched prosodic system of grammatical distinctions that mark different types of sentence and clause boundaries.

are the 1st pers. sg. token *nevím* 'I don't know'. In contrast, there are only 2 tokens of verbs of positive knowledge in the same corpora (*pamatovat si* 'to remember', *vzpomenout si* 'to recall'). I will return to the significance of these counts in the subsequent section. For now, we can make the generalization that the preferred filler of the main verb slot is specifically the form *nevím* 'I don't know'.

To summarize, there are various ways in which the canonical structure may show signs of eroding, but, crucially, they all seem to correlate with a particular implicature, which capitalizes on the meaning of uncertainty, associated with the main predicate. These semi-autonomous JESTLI-clauses have the (incipient) flavor of voicing the speaker's own opinion, rather than just reporting someone's question, although that meaning is always a possibility (at least from the hindsight).

If we were to formalize the most salient features of the transitional contexts, we could represent them in the form of an intermediate structure such as in Figure 2, which is intended as an attempt to make an explicit and relatively precise statement about the incipient disintegration of an established syntactic unit (a complex sentence) and about the communicative features that matter in the transition. Figure 2 is thus essentially a modified variant of Figure 1: new features are in bold, the backgrounded/eroded features are in gray, and the order of the clauses is switched, this time showing a fixed order [JESTLI-clause — main predicate]. Notice also that these two constituents are no longer presented as *necessarily* a unitary construction, in which the two clauses would be in the mutual relation of syntactic sisters. The two parts are in a relatively loose relationship in these transitional patterns and this is indicated by drawing the outer box in gray. The attenuated presence of the main clause is marked by a dashed line.
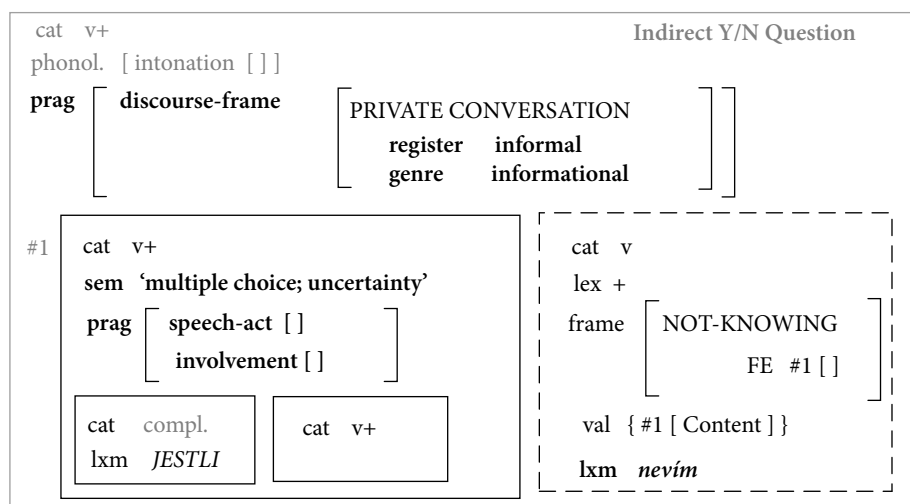

Figure 2. Backgrounding of the main clause.

There would not be much disagreement among cognitively oriented analysts that it is important to identify, as precisely as possible, the features of transitional, intermediate patterns because of the role these patterns play in the emergence of new structures. So far there has been no attempt to propose a way of representing such patterns formally and yet, a precise formal representation can serve as a useful tool in articulating the processes that result in the re-organization of speakers' linguistic knowledge. The formalism in Figure 2, thus, is the first attempt to fill this gap. The point of the representation is to highlight the features that (i) lead toward reducing the main clause to a mere place-holder, which makes the status of the *JESTLI*-clause as a real argument of the main predicate tenuous at best; (ii) leave the pragmatic function of the *JESTLI*-clause somewhat in flux as a result, with hints toward signaling an independent speech act (i.e., not necessarily a dependent question, but an independent assertion); (iii) associate the semantics of 'uncertainty' with the *JESTLI*-clause itself; and (iv) suggest the subjective, speaker-centered flavor (indicated by the 'involvement' feature). The properties that are in bold are those in which these transitional patterns differ from the standard Y/N patterns; compare the list in (13) with (6) above:

(13) a. <u>Main clause</u>: predominantly *nevím* 'I don't know'.
  b. *JESTLI*/*zda* substitution no longer applies:
    only *JESTLI* is attested in these assertions; replacing *JESTLI* with *zda* in (9) and (10) would sound very odd and out of place (even if we adjusted the rest of the text for appropriate stylistic features).
  c. <u>Order of clauses</u>: *JESTLI*-clause must be utterance-initial.
  d. <u>Non-compositional meaning</u>: speaker's uncertainty.
  e. <u>Discourse domain</u>: restricted to spoken, informal dialogical discourse.
  f. <u>Categorial status</u> of *JESTLI*: becoming less clear, indicated by the graying out of the *compl*(ementizer) category label.

2.3 Free-standing subjective assertions

The very existence of inversion and/or detachment suggests that the *JESTLI*-clause alone may become sufficient to invoke the meaning of uncertainty or lack of factual knowledge that would be normally contributed by the main predicate. The intermediate, transitional contexts discussed above thus help us understand one aspect of the emancipation of the *JESTLI*-clauses into free-standing propositions, such as is exemplified in (14). Notice that in this stretch of discourse there is no candidate for providing a potential main predicate:[9]

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9. There are, in fact, several semantic and pragmatic modulations within these free-standing assertions, but given the space constraints, I can only focus on this one type. We can take it as

(14) line 1   A: *povídám tak co? chodíš ešte cvičit? povídala že ne že už necvičí že*
      2   *jí potom bylo špatně, že se*
      3   B: *pane*
      4   A: *jí tam špatně dýchalo nebo co já říkám tak co to tak přeháníš tak*
      5   *když toto tak vynechám ňáký ty cviky že jo?* **jesi** *se tam hned*
      6   *ňák nemohla popadnout dech nebo co taky*
      7   B: *no nediv se prosim tě dyť není vůbec na to zvyklá*   [BMK]

    line 1   A: 'so I say what's up? do you still go to the gym? she said that no
          that she doesn't go anymore that she
      2   got sick afterwards that'
      3   B: 'oh man'
      4   A: 'she had a hard time breathing in there or something, I say well
          so why do you overdo it? if it gets too much
      5   you just skip some exercises, big deal, right? **I-guess** she
      6   somehow couldn't catch her breath quickly or something'
      7   B: 'well don't be surprised, don't you know she isn't used to it at
          all?'

In (14), the *jestli*-clause acquires the flavor of a guess about the plausibility of the proposition — along the lines of 'I think that *p* is most likely'. This meaning is reinforced by the trailing *nebo co* 'or what' (line 6) at the end of the clause, which may or may not appear in these types of assertions. When it does appear the speaker simply signals explicitly what is always implied by Y/N questions: that there are multiple alternatives out of which the speaker will choose one as the right answer. However, in these free-standing clauses, in contrast to the transitional contexts, the meaning of the *jestli*-structure is always the speaker's subjective guess about the plausibility of the alternative he/she is offering, with the implication that the hearer is not necessarily expected to agree.

The inference that the speaker is not simply reporting someone's question but, instead, provides a tentative subjective evaluation of a potentiality is consistent with the high frequency of the form *nevím* 'I don't know' as the lexical filler for the main predicate in the canonical sentences, discussed in Section 2.2. The lexical asymmetry is significant for several reasons.

(i) The prevalence of the verb *nevědět* 'to not.know' (and a few synonyms, not included in the counts given above) can be taken as a strong motivating factor for the meaning of 'uncertainty/lack of knowledge' that appears in the free-standing assertions. If the typical use of the embedded Y/N question is associated with

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an important constitutive segment within the path from *jestli* as a syntactic complementizer to a modal particle, and also as a representative example of the clause-emancipation process in general.

reporting someone's lack of knowledge (explicitly encoded as such), it is no great surprise that the *JESTLI*-clause itself may incorporate (and consequently invoke directly) the meaning that was originally contributed by the main predicate. It makes cognitive sense that speakers would register this connection as a relatively tight single unit conceptually.

(ii) The verb *nevědět* 'to not.know' is semantically the most generic member of the class of potential lexical fillers. The fact that it does not bring any novel contribution in the discourse (beyond stating an uncertainty) turns the main predicate into something of a mere place-holder; such a place-holder can, of course, be easily dispensed with. The communicatively diminished status of the main predicate is also consistent with the appearance of various fixed expressions, such as the one in (1c), which are even syntactically barely clausal (e.g., the expression *čert ví* '[lit.] devil knows' in (1c) can only appear in the present tense indicative form, cannot figure in a question, etc.) and always have a non-literal meaning: a strong negation along the lines of 'nobody knows'.

(iii) The fact that this place-holder predominantly refers specifically to the *speaker's* state of knowledge helps justify the development from objective reporting of a question (in a standard embedded Y/N question) to an expression of subjective attitude concerning the plausibility of what is being said. And particularly, this semantic type of *JESTLI*-assertions is found always in 'fact-finding' contexts in which the interlocutors are trying to work out a potential explanation for observations of mutual interest but for which they lack factual evidence or direct knowledge.

To summarize, there is an observable shift from the clause type in (1) — a standard embedded Y/N question as a type of reported speech — to the type in (14). The pattern in (14) still maintains the syntax of a subordinate clause by the presence of the interrogative *JESTLI* but pragmatically serves a distinctly new function: it is a subjective assertion. An explicitly expressed uncertainty ('I wonder if *p*') is, as it were, 'firmed up' and presented as a declaration of an opinion ('I think that probably *p*'). In these assertions, the word *JESTLI* functions as a contextualizer in relation to another utterance in the discourse, in that it links the content of the *JESTLI*-clause with a particular proposition in the immediately preceding discourse. Simultaneously, it signals a speaker-centered modality with evaluative semantics and this clearly is not part of standard Y/N questions. We can label this type of *JESTLI*-clauses as Subjective Assertion, in reference to their pragmatic force.

The *JESTLI*-clause in the Subjective Assertion pattern is, then, a particular crystallization of the inferential potential displayed in the transitional contexts, in that:

(15) a.   there is no identifiable <u>main clause</u>;
      b.   <u>categorially</u>, *JESTLI* can no longer be considered a syntactic
           complementizer that would mark an embedded clause of a particular
           kind (interrogative);
      c.   the <u>function of *JESTLI*</u> is explicative, signaling the speaker's attempt to
           provide a tentative explanation for something in the present context;
      d.   the <u>discourse context</u> is one of working out common ground, often in
           answer-question sequences.

This pattern constitutes a distinct piece of grammar, i.e. a new grammatical construction. Even if we were to disregard the pragmatic restrictions and idiosyncrasies, the Subjective Assertion usage evidently is not a simple concatenation of otherwise familiar parts. And the pragmatic properties (restrictions on text type, involvement of the speaker, overall function of indirectness, etc.) must be part of the conventional knowledge as well, as they are not simply inferable otherwise and also constrain, in a particular way, the distribution of this pattern in discourse.

The representation of this knowledge is formalized in Figure 3. The categories used for structuring the discourse-related information draw, for the most part, on the concepts within "implicit anchoring" proposed by Östman (1981; in the context of constructional analysis discussed also in Fried & Östman 2005); in the

cat   v+   **Subjective Assertion**
  sem   'uncertainty'   *inherit* Indirect Y/N Question
phonol. [intonation   **declarative**   ]

prag ⎡ **d-frame**   ⎡ PRIVATE CONVERSATION
          ⎢   ⎢   **register**   **informal**
          ⎢   ⎣   **genre**   **informational**
          ⎢
          ⎢ **involvement**   'speaker's subjective evaluation of
          ⎢   propositional content as likely true'
          ⎢
          ⎢ **coherence**   ⎡ **speech-act**   assertion/explicative (of #1)
          ⎢   ⎢ **hearer-response**   --
          ⎢   ⎢ **discourse-role**   'response'
          ⎣   ⎣ **disc.-sequence**   'find an antecedent (#1)'

⎡ cat   **contextualizor**   ⎤   ⎡ *cat*   v+ ⎤   ⎛ ⎡   ⎤ ⎞
⎢ sem   'explicative'   ⎥   ⎣   ⎦   ⎜ ⎢   ⎥ ⎟
⎢ *lxm*   JESTLI   ⎥   ⎝ ⎣ *nebo co*   ⎦ ⎠
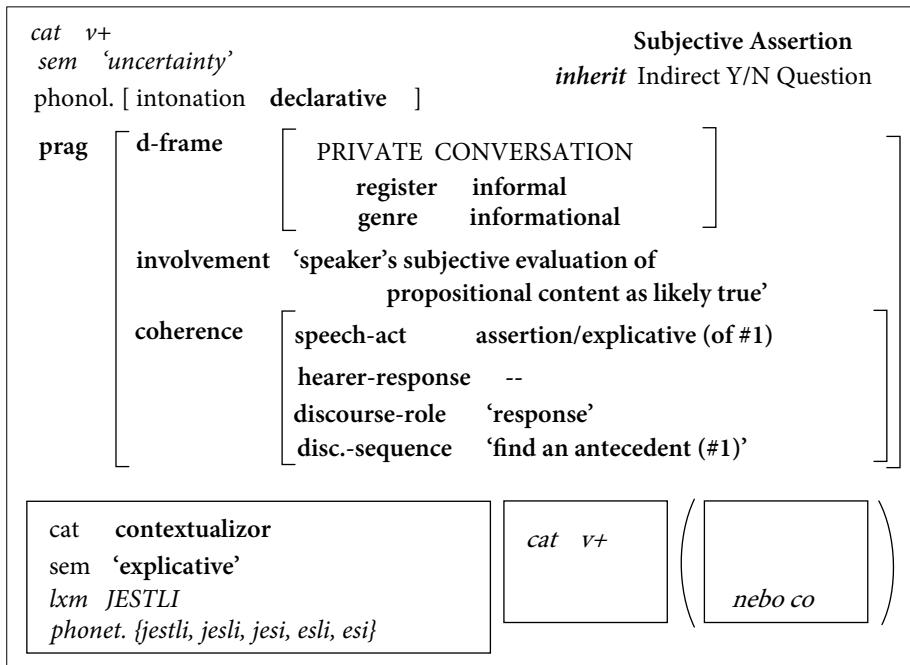⎣ *phonet. {jestli, jesli, jesi, esli, esi}* ⎦

Figure 3. Subjective Assertion construction.

interest of reader-friendliness, their content is presented mostly in the form of short prose descriptions enclosed in single quotes. Again, boldface throughout the diagram indicates features that are specific to this construction, some of them evidently shared also with the intermediate patterns captured in Figure 2. The use of a matching font in italics is reserved for properties that are inherited from (i.e., shared with) standard embedded Y/N questions.

Figure 3 captures a stage of development in which the syntactic emancipation of *JESTLI* is complete; the word is grammaticized into a contextualizer with a modal flavor that could be glossed as 'in my opinion'. Moreover, the metonymic transfer of the meaning of uncertainty from the implied main predicate is now complete and fully incorporated into this construction and repackaged as positive knowledge, albeit only potentially.

3. From evaluative assertions to a modal particle

Given the development sketched above, it is not a stretch to take the emancipation path a step further and apply the same kind of analysis to the usage shown in (2), here repeated as (16). Not only is there no main clause in which the *JESTLI*-expression could be syntactically embedded, but what follows *JESTLI* is not even a clause. In this example, *JESTLI* has the scope only over a noun phrase in an argument slot (a personal name indicated by the initials NP).

(16) *a tak NJ nešel, že jo, no tak potom ho, potom ho volal, někdo mu volal,* **jesi** <
     NP > nebo kdo že už, že už de rovnou   [oral2006]
     'and so NJ was not coming, right, well and so then somebody called him,
     I-guess < NP > or somebody, that, that he's going straight [there]'

We find this pattern with other syntactic constituents as well: e.g. a prepositional phrase (17), a quantifier (18), a noun (phrase) after an adjectival modifier (19), or even a finite verb alone (20); the relevant constituents are enclosed in brackets <>:

(17) *dyž sme tenkrát byli ňák s někym,* **jesi** *< s Martinkou > nebo něco, v*
     Drážďanech, s tebou, […] tak voni šli do tej Semperopery   [PMK]
     'when we were that time with someone, **I-guess** < with Martinka >, or
     something, in Dreseden, with you […] then they went to that Semperopera'

(18) *a kilo melounů tam stoji* **esi** *< sedumdesát > — nějakejch těch jejich halířů*
     nebo co to tam mají   [BMK]
     'and a kilo of melons there costs **I-guess** < seventy > — those cents of theirs
     or whatever it is they use there'

(19) *tak tady s tou paní sem tam právě cestovala ta se zná jako s J oni byly tu dobrý*
      esi *< jako kamarádky v práci nebo jako spolupracovnice>*   [BMK]
      'so this is the woman I traveled there with, she like knows J, here they were
      good **I-guess** < friends at work or as co-workers >'

(20) *já sem ňák na to . **jesi** < zapomněl > co máme kreslit*   [BMK]
      'I somehow **I-guess** < *forgot* > what we were supposed to draw'

In all these cases, JESTLI has completely lost its textual function of clause- or utter-
ance-integration; it is fully grammaticalized into a particle with a modal function,
marking the speaker's subjective guess, only with a narrower scope than we see
in the Subjective Assertion construction. We could say that the subjective, modal
potential of the JESTLI-expressions is most fully consolidated in this usage.

    In some contexts, this form comes across almost as a meta-message — a fairly
direct, explicit comment on the speaker's uncertainty that he or she is describing
things correctly; particularly the examples in (19–20) are suggestive of this flavor.
For example in (20), which also stands in a minimal contrast with all the clausal in-
stances of JESTLI, the speaker talks about an incident that took place during an art
lesson at school and the point of the narrative is that he cannot recall a particular
detail. The students were apparently given a specific topic for drawing but at some
point the speaker noticed that he was drawing something entirely different from
the rest of his classmates. He is now offering an explanation (namely, forgetting
the teacher's instructions) but also makes it clear that he may not be recalling the
actual reason for his non-compliance because there could have been other, equally
plausible explanations (not paying attention, not liking the topic, not knowing
how to do it, etc.). By placing JESTLI directly before the verb, the speaker draws
attention to his inability to reconstruct the exact reason. In other words, he is con-
cerned with recalling a particular part of the event (indicated by the italics in the
English translation) rather than with the event as a whole; the latter would call for
the clausal JESTLI (in Figure 3), placed in front of the entire clause (*jesi sem ňák na
to zapomněl* 'maybe I somehow forgot it [=what to draw]'), but the result would be
defocusing the *forgetting* as the crucial explanatory element and the specific source
of the speaker's uncertainty.

    We can conclude that the particle JESTLI is completely free with respect to its
placement in the clause: it has lost its clause-marking character, which is still pre-
served in the free-standing assertions (14), and can, therefore, co-occur with any
kind of constituent, including the finite verb alone.

    We also find instances that suggest a possible intermediate stage: cases where
the constituent-based JESTLI is preceded by the expression (*já*) *nevím* 'I don't know'
(21), instead of the bare form shown in (16–20).

(21) *to řekl tehdy, já <u>nevim</u>, **jesi** NN, ale myslim, že NN ne, že to byl Lukáš*,

[oral2008]

'that [expression] was then coined by <u>I don't know</u> **if** NN, but I think that [it was] not NN, that it was Lukáš'

The *jesi*-expression in (21) is just a noun phrase, functionally in the subject slot of the sentence, but it is still accompanied by an explicit acknowledgment of 'not knowing'. Nevertheless, the quasi main clause is fixed in this particular verb form only (1st sg. present tense), and the form or meaning of the sentence would remain unaffected if *já nevim* were dropped.

Interestingly, there are also indications of slight dialectal variations with respect to the type (21) and the bare particle use (16–20). The dialectal variable requires serious additional study, but preliminary observations further strengthen the overall hypothesis that the development consists of a gradual shift from a clausal complementizer to a mere particle, with different cut-off points in different speech communities. The particle development seems least common in the Prague corpus,[10] while it is more amply attested both in the Bohemian Czech corpora (oral2006, oral2008) and the Brno corpus (BMK, which belongs to Moravian-Czech dialects). At the same time, Bohemian Czech dialects offer evidence that the grammaticalization process toward a modal particle has progressed further in Moravian Czech: the intermediate cases illustrated in (21) are almost twice as often attested in the Bohemian Czech corpora than in the Brno corpus.[11] It is also worth noting that the distribution of the reduced forms across the clausal vs. particle usage of JESTLI suggests a correlation between the degree of phonetic reduction and the function of the lexeme along the proposed grammaticalization path: we can detect a tendency toward a more frequent occurrence of the shortest forms (*jesi, esi*) as a modal particle, in contrast to the more complex forms containing at least some portion of the full medial cluster (*jesli*, and especially *jestli*). While

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10. In fact, both the particle and the Subjective Assertion construction appear as marginal in PMK. These two forms account for less than 4% of all the Y/N-related tokens, as compared to 12% in BMK and 17% in the Bohemian Czech corpora. This alone may be a somewhat surprising discovery in that the speech of a major metropolis appears more conservative than the speech outside of it. However, we cannot draw any major conclusions from this single observation. More research is evidently needed.

11. Other dialectal differences appear also in the distribution of the reduced forms, especially concerning the two most frequent variants, *jesi* and *jesli*: *jesi* outnumbers *jesli* (about 3:1) in BMK, while *jesli* seems more common in PMK (about 3:2), and both variants are about equally frequent in the Bohemian Czech corpora. All of these details should be explored further vis-à-vis the (numerous) functional variants associated with JESTLI, partially reported in Fried & Östman 2005 and Fried 2006.

Table 1. Relative frequencies of the reduced forms in the particle function.

	jesli	jesi	esi
All tokens in corpus:	1151	1291	178
Particle tokens:	19	28	6
Percent of particles:	1.7%	2.2%	3.4%

the spoken corpus is relatively small and we thus must be careful in evaluating the significance of any statistical evidence here, the numbers still provide useful information in their relative value, summarized in Table 1, which can be taken as indicative of a tendency that is consistent with what can be expected in a grammaticalization process.

A possible formal representation of the modal particle is in Figure 4. The particle maintains, through inheritance, the pragmatic and discourse-based properties of the free-standing assertions, which is indicated by the italicized font. However, *JESTLI* has changed its categorial status and syntactic combinatorial properties: it requires a syntactic sister immediately to its right and this constituent can be categorially anything non-clausal.
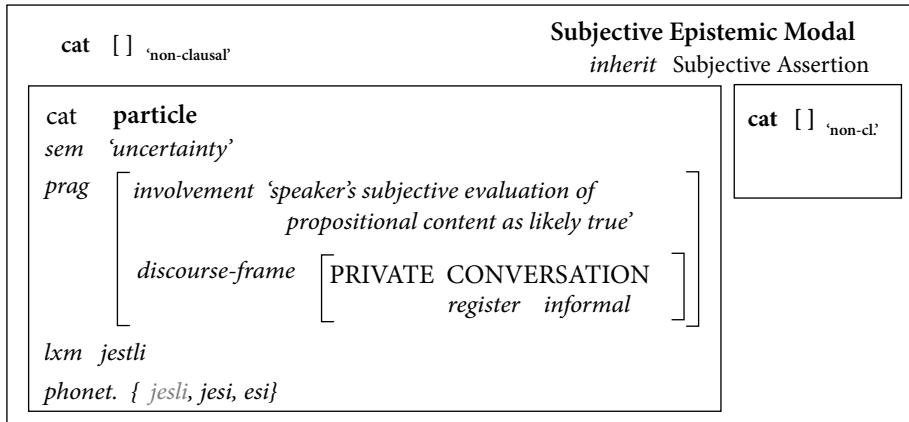

Figure 4. *JESTLI* as a modal particle.

The status of *JESTLI* as a modal particle naturally invites comparison with other particles with similar meaning, such as *asi* 'maybe', *možná* 'possibly', *třeba* 'perhaps', etc. A full treatment cannot be carried out in the space of this paper, but at least a brief illustration on the example of *asi* will be valuable in proving the special semantics of *JESTLI* and, hence, its non-synonymy with these other epistemic particles. The following is a corpus example with the particle *asi*; as indicated by the symbol '#', *JESTLI* could not take its place without destroying the coherence of the content (or, at best, without changing the interpretation).

(22) A: *kdy my pojedeme k mým rodičům?*   [BMK]
         'when are we going to see *my* parents?'

      B: *no říkals že **asi** / **#jesi** po Vánocích tam zajedeš sám a potom na jaře*
         myslím .. všichni
         'well, you said that **maybe** after Christmas you'll go there by yourself
         and then in the spring, I think .. all of us'

This example provides evidence of the subjective, speaker-centered flavor of
JESTLI. As a marker of the speaker's own uncertainty, it cannot be used in an em-
bedded content clause that reproduces someone else's voice (the hearer, in this
case). The variant with *asi* merely quotes speaker A as presenting Christmas as a
probable time. Substituting *JESTLI* for *asi* in B's turn could only lead to the inter-
pretation that the speaker (B), while reporting the hearer's (A) speech, suddenly
switches to her own voice and comments not on the likelihood of Christmas being
the time, but on the fact that she may not remember correctly whether A sug-
gested Christmas or some other time. In both cases (*asi* and *JESTLI*), the time of
the visit is presented only as a potentiality, as uncertain — that much is shared by
asi and *JESTLI*. But the latter unambiguously indexes the *speaker* as the source of
the uncertainty, while the former does not.

An instructive example of the non-synonymy between *JESTLI* and *asi* is shown
also in the exchange in (23), where speaker A's turn contains a token of *JESTLI*
while B, still talking about the same content, chooses *asi*:

(23) A: *byla nejlepší **jesi** na základce*
         'she was the best [student] **I-guess** in grade school'

      B: *no tak to ti každej odpoví že **asi** na základce protože tam je nejmíň starostí*
         'well, everybody will tell [lit. reply to] you that **probably** in grade school
         because that's where you've got the least stress'   [BMK]

This juxtaposition of both particles in immediately neighboring turns confirms
the observations made about (22). Speaker A expresses an opinion about a third
person both interlocutors know, and she uses *JESTLI* as a hedge: she knows that
this person was supposed to be successful in something but she is not entirely sure
what it was; she ventures her best guess about it — placing the success at grade
school.[12] Speaker B not only accepts this guess but offers a further confirmation

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12. The use of *JESTLI* could also refer to A's imperfect recollection of what someone else said,
analogous to the voice-switching alternative discussed in connection to (22). However, the con-
text makes it clear that this is not the case, including the choice of the main verb in B's turn. By
using the verb *odpoví* 'will reply', B makes it clear that she takes A's turn as A's own assessment,
casting the exchange as a question-answer sequence about the substance, not the origin, of A's
guess. This is a very subtle judgment (also very hard to render naturaly in idiomatic English),
but perceptible to the native speaker.

that A's reasoning is plausible, by shifting A's subjective assessment of the probability into a more objective domain of general knowledge. By using *asi*, B still keeps the conversation in the sphere of speculations, but the appeal to *každej* 'everybody' as a source of wisdom and the added justification for why everybody might hold this view preclude the option of presenting B's opinion as her subjective — and only tentatively offered — suggestion. Given that B draws explicitly on some universal validity of grade school being the most likely place of success for someone of otherwise unremarkable scholarly achievements, the use of JESTLI would lead to complete incoherence.

In the light of these examples, it is safe to conclude that JESTLI as a pure modal particle still maintains the speaker-centered flavor as an inherent component of its epistemic meaning. Its meaning cannot be glossed simply as 'maybe', but only as 'in-my-opinion-maybe', in a clear display of a layering effect in relation to its diachronic source.

4. Synthesis

At the beginning, we posed the question whether we can establish a motivated relationship between a standard indirect Y/N question and JESTLI as a modal particle. The connection would not be readily apparent if we wanted to link the two patterns directly. But taking a close look at the ways in which JESTLI is used in authentic conversations allows us to trace the relationship along a path that represents a type of change known as "pragmatic strengthening" (Traugott 1988), which may occur as part of a grammaticalization process.

If we reduce the development to discrete stages, each of which corresponds to a distinct grammatical pattern involving JESTLI, we can posit three distinct grammatical constructions that reflect (one subnetwork of) the polysemy associated with JESTLI: standard Indirect Y/N Question, Subjective Assertion, and JESTLI as a Subjective Modal Particle. As schematically represented in the figures, each pattern is characterized by a distinct cluster of structural, semantic, and pragmatic properties, which can be organized in such a way as to give us the cut-off points between the patterns along individual dimensions, as shown in Table 2. Each dimension in Table 2 can be read as one type of a partial transition, all of which are, to varying degrees, instrumental in the overall development. The white area represents the Indirect Y/N Questions, the starting point. The light-gray area represents the Subjective Assertion construction, in certain aspects also shared by the Subjective Modal. The darker area highlights features that are specific to the modal particle only. The dashed lines indicate the fact that the boundaries between individual patterns are not always sharp and clear-cut, as has been demonstrated

Table 2. Summary of gradual shifts from standard Y/N questions to modal particles

	Y/N question>	>	Subjective Assertion	>	Modal
discourse-pragmatic	genre-neutral		co-operative informational		(genre-neutral)
	register-neutral		informal, private conversation		
	propositional		subjective		
functional	interrogative		evaluative/modal		
semantic	no knowledge		potential knowledge		
categorial	complementizer		contextualizer		particle
structural			clause		S-constituent
	subordinate		free-standing		

in the discussion of the corpus examples. Not surprisingly, the fluid transitions are particularly prominent between the standard Y/N questions and the Subjective Assertion; this follows from the fact that (i) both patterns are clausal, (ii) spoken syntax is inherently somewhat loser than written syntax, and (iii) since there is enough similarity in form, certain linear arrangements and particular socio-pragmatic contexts leave the interpretation somewhat open to either option; recall the transitional contexts, and especially example (9).

However, listing features is not enough if we wish to understand the internal dynamics of the change, i.e., to address, in a plausible and systematic way, the question of *why* the change has progressed in the way it has; we have to consider additional details of the discourse environments in which the lexeme *JESTLI* occurs. This means we have to isolate the factors that appear conducive to the change, and we can reliably do this only by paying attention to the details of usage. Based on the attestations in the corpora, we can list at least the following factors:

(24) **Usage-based motivation for the development:**
   a. structural: inverted order of clauses in full indirect Y/N questions;
   b. referential: prevalence of speaker as the subject of the main clause;
   c. semantic: prevalence of the quintessential verb of uncertainty *nevědět* 'to not.know' in the main clause;
   d. discourse-pragmatic: low informativeness of the main verb;
   e. contextual: dialogical exchanges, esp. question-answer sequences.

It is the list in (24) that provides a good basis for articulating more general explanations about the nature of this path of change: we can now seek explanations in specific communicative and cognitive principles and try to link the observations in (24) specifically to the role of inferencing and metonymic reasoning in reshaping grammatical structure.

The details summarized in Table 2 and in the list in (24) lead to one salient conclusion: as already suggested at the end of Section 3, at the heart of the process is the pragmatic strengthening of the semantic potential of the complementizer *JESTLI* in the Y/N questions. The reasoning that would lead speakers toward re-conceptualizing the status of the word *JESTLI* in certain conversational contexts can be hypothesized to go as follows. An indirect Y/N question implies the availability of multiple possibilities in terms of a true/plausible answer. If there is a reason to ask, there is clearly uncertainty about the facts. Moreover, if the stated subject of the uncertainty is the speaker, the hearer may infer that the lack of knowledge indeed is specific to the speaker only. At the same time, the speaker's uncertainty about something runs potentially counter to the basic goal-oriented nature of discourse: it implies a (potential) failure to make a meaningful contribution to the conversation. The speaker may thus opt for an ostensibly productive contribution, but presented as a hedge, in order to signal and simultaneously ameliorate the lack of knowledge. This kind of reasoning would account for the shift from simply reporting objective uncertainty toward the expression of a subjective attitude toward the 'quality' of what is being said. Moreover, the subjective attitude has a particular flavor here: it suggests that in posing the indirect Y/N question, the speaker anticipates a positive answer, which leads to the shift from 'I wonder if p' toward asserting 'I think that probably p'. Put differently, the speaker casts a (objectively ascertainable) lack of knowledge as potential or partial knowledge.

Finally, the change can be justified by appealing to the indexical nature of linguistic signs and speakers' readiness to exploit it: speakers evidently can invoke the knowledge of a whole grammatical pattern by using just one of its constituent parts. In the cases discussed here, the part-for-whole relationship concerns the usage of a *JESTLI*-clause on its own, thereby invoking the semantics that goes with its erstwhile, now 'missing', main clause (i.e. the meaning of uncertainty). The fact that this process continues by expanding the range of syntactic contexts (from clausal to non-clausal), while solidifying the modal meaning, is only in the nature of things; it is simply a later stage in the on-going grammaticalization process.

5.   Conclusions

The point of this paper was to show that in order to establish a diachronic relationship across grammatical patterns, we need to take into account the cognitive and communicative grounding of grammatical structure. In the development discussed here, the change consists in maximizing the semantic concept of uncertainty in particular discourse contexts, thus allowing interpretations in which the evaluative potential of an indirect Y/N question crystallizes into a conventional

expression of subjective attitude and becomes the primary meaning. The shift can be described as a two-layer transfer. One layer involves the incorporation of the meaning of the main verb into the subordinate clause, thus gradually rendering the main clause communicatively redundant. I argued that this transfer is motivated and facilitated by the high frequency of a particular lexical filler as the main predicate. The other layer concerns the subjective nature of the meaning of uncertainty, which is reinforced by the high frequency of the 1st pers.sg. form of the main verb. In terms of form, the process leads to the fusion of two meanings (one for each clause) into a single constructional meaning associated with a single constituent, first clausal but gradually expanded into non-clausal structures as well. And the whole process correlates with a certain degree of loss in the phonetic bulk of the grammatical lexeme that is at the center of all these shifts.

The analysis highlights the fact that factors that contribute to the change must include (i) the speakers' knowledge and understanding of recurring, conventionally expected *discourse patterns*, not just knowledge of the meaning of words; and (ii) reference to principles of *textual organization* (i.e., conventional expectations about structuring sequences of propositions, not merely syntactic structuring of sequences of clauses). All of this follows from the fact that it is the discourse context where grammatical changes originate.

In order to capture the multi-faceted nature of change, it is necessary to have analytic and representational tools that allow us to articulate, in a systematic way, generalizations about the discourse-grounded nature of linguistic structure and hypotheses about speakers' linguistic knowledge. I hope to have demonstrated that the complexities of gradual grammatical change can be very well accommodated by the tools of Construction Grammar; its multi-dimensional architecture with equal focus on the holistic dimension and the internal structure of grammatical patterns can help us be more precise about articulating the *emergence* of grammatical structure, instead of just comparing discrete synchronic stages. I tried to show how we can establish diachronic relationships across constructions, thereby capturing the essence of grammatical change with its gradient nature, layering, and the richness of detail, including pragmatic features. The main points of the analysis can be summarized as follows: (i) the meaning/function of JESTLI cannot be determined outside of specific constructions; hence, we have to take constructions as the domain of change; (ii) the multi-dimensional nature of constructions naturally allows for tracing partial transitions that are crucial to understanding grammatical change in general *and* tying them together with the holistic dimension; (iii) linguistic variation and general paths of change can be organized within a particular conceptual space and form a coherent network of both syntactic and contextualizing uses of a single form.

Source of data

Czech National Corpus (*ČNK*), accessible at http://www.korpus.cz:

ČNK – BMK. Ústav Českého národního korpusu FF UK, Praha 2002.

ČNK – DIAKORP. Ústav Českého národního korpusu FF UK, Praha 2005.

ČNK – ORAL2006. Ústav Českého národního korpusu FF UK, Praha 2006.

ČNK – ORAL2008. Ústav Českého národního korpusu FF UK, Praha 2008.

ČNK – PMK. Ústav Českého národního korpusu FF UK, Praha 2001.

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