

A new look at information structure in Hungarian

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Abstract It is a commonly accepted view in the Hungarian linguistic literature that sentence structure is determined by information structure, viewed as a phrase structure theoretic interpretation of the topic–comment articulation of the sentence. There is a designated topic position at the left edge of the sentence, namely SpecTopP, hosting constituents that are claimed to be in a predicative relation with the rest of the sentence. On this view, topic–comment and logical subject–logical predicate are considered to be synonymous notions. We argue that the notion of topic as used in the Hungarian literature poses some serious problems, which can only be eliminated if the pragmatic aspects of topichood are separated from its semantic function entailing the development of a two-level approach to information structure. Topic and logical subject belong to two different levels with topic being an essentially pragmatic notion and logical subject being a syntactico-semantic notion. On this analysis the basic syntactic structure of the Hungarian sentence is determined by the articulation “logical subject–logical predicate” rather than by the articulation “topic-comment”. The proposed analysis has important typological consequences.

Keywords Information structure · Logical subject · Logical predicate · Topic · Categorical judgment · Thetic judgment

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1 Introduction

Information structure may have to do either with the propositional articulation, the pragmatic articulation of the clause (see Table 1), or with both. Semantically, both can be defined in terms of aboutness, though they differ in other respects, as we shall see presently.

However, there are some essential differences between the two articulations. Taken as a pragmatic notion, the topic of the sentence is the constituent denoting *the individual(s) the sentence is about with respect to a particular context*. This view is in accordance with the general constraint observed across languages that a topic referent must be familiar, or at least accessible by means of contextual information. The topic need not appear in a separate position even in so-called “topic-prominent” languages but can remain in situ if the processing of its topic status does not need any particular cognitive effort. In contrast, we define logical subject simply as the constituent denoting *the individual(s) of which the logical predicate is about*. The selecting of a logical subject corresponds to a particular discourse strategy that does not necessarily depend on the particular context in which the sentence is uttered. A consequence of this relative contextual freedom is that a logical subject can even denote a “brand-new” individual, that is, a referent completely unidentified both for the speaker and the hearer.

It is a commonly accepted view that Hungarian is a “topic-prominent” or “discourse-configurational” language in the sense that the syntactic structure of a sentence is determined by its information structure rather than by the grammatical function of its constituents. At the same time, no distinction is usually being made between logical subject and topic, and logical predicate and comment. They are considered to be synonymous notions. In fact, as we shall see, the definition of “topic/logical subject” in Hungarian linguistics basically has a logical character, but the constraints formulated with respect to “topic/logical subject” referents are purely pragmatic constraints. Hungarian is thus usually integrated into the class of “topic-prominent” or “discourse-configurational” languages, even though it differs in several respects from the latter.

The received analysis, which we will criticize in the present paper, assumes that there are two types of sentences in Hungarian: sentences which have a topic–comment articulation where the first constituent is the topic, and sentences which lack such an articulation, in which case the whole sentence can be considered to be the comment. The first type is exemplified by (1a) and the second by (1b):

Table 1 Information structure

Propositional articulation of the clause	Pragmatic articulation of the clause
Logical subject/Predicate	Topic/Comment

- (1) a. *Marinak tetszik a bátyám.*
 Mary-dat pleases the brother-my-nom
 ‘Mary likes my brother.’
- b. *Virágzik az akác.*
 blossoms the acacia-nom
 ‘The acacia blossoms.’

In (1a) the NP *Marinak* is the topic of the sentence (the grammatical subject of the sentence is *a bátyám* ‘my brother’): it denotes an individual which the predicate *tetszik a bátyám* ‘my brother pleases’ is about. This word order does not represent a marked, “topicalized” version of the assertion ‘Mary likes my brother’, but is a neutral sentence that can be uttered “out of the blue”. In contrast, (1b) begins with a verb and can be considered a complex predication; in other words, the whole sentence is associated with a situation that cannot be decomposed into a topic–comment articulation. This structure, too, corresponds to a neutral sentence type in Hungarian.¹

For traditional accounts, sentences such as (1a) are not problematic. The Topic position is occupied by a definite noun phrase and thus has the referential properties required for a topic. Problems arise, however, if there is a nonspecific NP in Spec-TopP, as in (2a, b).

- (2) a. *Egy gyerek leesett a villamosról.*
 a child-nom pfx-fell the tram-from
 ‘A child has fallen off the tram.’
- b. *Valaminek nagyon örül Péter.*
 something-dat very rejoice Peter-nom
 ‘Something delights Peter very much.’

Though in (2a), an indefinite nonspecific noun phrase, and in (2b), an indefinite pronominal occupy the specifier position of TopP, they can in no way function as topics. Yet (2a) is about a child and (2b) is about an unspecified thing. Apparently, in such cases another notion of aboutness is called for. We will call *egy gyerek* ‘a child’ in (2a) and *valaminek* ‘something-dat’ in (2b) the logical subject of the sentence. We will examine the status of the sentence-initial syntactic position called “topic position” and the referential and pragmatic properties of the constituents this position is designated to host in more detail. We will show that the constructs “topic” and “logical subject”, treated as being synonymous in Hungarian linguistics, should rather be assigned to two different levels of sentence analysis.² Topic is a pragmatic notion corresponding to given information already introduced in the discourse while logical subject is a syntactico-semantic notion corresponding to a plain aboutness relation that is not dependent on previous discourse. Hungarian sentence structure will turn out to be determined by the logical articulation (in terms of logical subject–logical predicate) rather than by the pragmatic articulation based on a distinction between topic and comment, therefore the claim that Hungarian is a topic-prominent or

¹The examples (1a) and (1b) suggest that the topic–comment articulation is related to the “categorical–thetic” distinction. We will discuss the relationship between the two pairs of notions in the next section.

²Our proposal is compatible with theories positing multiple distinct levels of representations such as Culicover and Jackendoff (2005).

discourse-configurational language cannot be maintained. Instead, Hungarian should be considered a logical subject–prominent language.

It will also be shown that the following relationship holds between topic and logical subject with respect to SpecTopP: (a) this position is filled by the logical subject, which at the same time can function in certain cases as the most prominent topic of the sentence, (b) an NP in this position can be the logical subject of the sentence without being topic, and (c) it may be the case that this position is not filled, but some other constituent is interpretable as topic. This two-level approach to Hungarian sentence structure will be shown to have the additional advantage of providing insight into typological differences between languages: the syntactic structure of English and standard French can adequately be described in terms of grammatical subject and grammatical predicate, whereas the syntactic structure of Hungarian (and possibly of Slavic) is based on logical subject and logical predicate, and that of colloquial French on topic and comment. This means that the typology proposed is based on three pairs of notions: (i) on the traditional notions of grammatical subject and grammatical predicate, (ii) on the notions of logical subject and logical predicate, and (iii) on the pragmatic notions of topic and comment.

The paper is organized as follows. In Sect. 2, we provide a brief historical background to the notions of topic and logical subject. We discuss the distinction between categorial andthetic judgment and its impact on some typological approaches to information structure. Section 3 briefly characterizes the syntactic structure of the preverbal domain of Hungarian sentences, based on current assumptions in theoretical linguistics. Section 4 deals with some problems concerning the notion of topic as presented in Sect. 3, and identifies possible syntactic realizations that are unexpected given such an interpretation of this notion. In Sect. 5, we present our own proposal, which will be referred to as “the two-level approach to information structure”. Crucially, it distinguishes logical from pragmatic structure. Finally, in the last section, we briefly explore the consequences of our proposal for the typological analysis of languages: we provide a characterization of Hungarian, Polish, English, and (written and spoken) French in terms of the relationship between syntactic and information structure.

2 Topic-prominence and the categorial–thetic distinction

In this section, we will show that the notions “categorial judgment” and “thetic judgment” are in some cases used as semantic, in other cases, as pragmatic notions. This unwelcome ambiguity has caused various problems in Hungarian syntax, as we shall see presently.

Hungarian is often claimed to be a topic-prominent (or discourse-configurational) language (É. Kiss 1994, 1998, 2002), i.e., a language in which the syntactic structure is determined by the discourse function of the constituents. É. Kiss (1998) defines a topic-prominent language as a language which expresses categorial judgments as

primary predication structures,³ andthetic judgments as mere Predicate Phrases. This can be more clearly understood by reviewing the notion of judgment types and their relevance for linguistic structures. According to the theory of Brentano (1874/1924) and Marty (1918), two types of judgments can be expressed by means of an assertive sentence: a categorical judgment and athetic judgment. A categorical judgment is defined as a double cognitive act, which consists of the recognition of a subject, and the affirmation or denial of what is expressed by the predicate about the subject:

- (3) Mein Bruder ist abgereist.
‘My brother has left.’

Athetic judgment is a logically simple judgment consisting of the act of the recognition or rejection of the content of a judgment that essentially registers a state of affairs without differentiating a subject and a predicate.

- (4) Es regnet.
‘It is raining.’

As (3) and (4) show—and this is also made clear by the authors—there is no direct relationship between the grammatical structure of a sentence and the type of judgment it expresses, since in both instances a grammatical subject precedes a verbal predicate. It is important to note that Brentano and Marty analyze decontextualized sentences only, claiming that the type of judgment expressed by a sentence does not depend on the context but on the logical, rather than grammatical, structure of the sentence.

Brentano’s and Marty’s theory was rediscovered by Kuroda (1972) and Kuno (1972). Kuroda (1972) reevaluates Brentano’s and Marty’s logical structure theory on the basis of linguistic considerations and observes that certain morphological characteristics of Japanese can be explained by means of the distinction between the two types of judgment. On his interpretation, sentence (5a)—in which the particle *ga* is attached to the noun *inu* ‘dog’—corresponds to athetic judgment, while sentence (5b)—in which the particle *wa* follows the noun *inu*—expresses a categorical judgment:

- | | | |
|--------|--|-------------|
| (5) a. | Inu ga hasitte iru.
‘A/the dog is running.’ | Thetic |
| b. | Inu wa hasitte iru.
‘The dog is running.’ | Categorical |

Although Kuroda does not consider the morpheme *wa* a topic marker (because he assumes, correctly, that the notion of “topic” can be interpreted in several ways and, consequently, is not a helpful label), he characterizes the difference between (5a) and (5b) in terms of contextual properties. He points out that sentence (5a) is used in a context where no dog was mentioned before, while sentence (5b) is uttered if the identity of the dog is already established in the preceding context. Furthermore, as

³É. Kiss (1998) defines a primary predication structure as a structural relationship between a Predicate Phrase and an XP such that XP is the external argument of the Predicate Phrase and is coindexed with a trace inside the Predicate Phrase.

commonly happens inthetic sentences, both the definite and the indefinite interpretation is available for *inu* ‘dog’. In contrast, on the categorial reading only the definite interpretation is possible. Comparing Brentano’s and Marty’s logical approach with Kuroda’s contextual approach to the categorial-thetic dichotomy, one observes that sentences considered categorial by the former (cf. (3)) are interpretable as ambiguous on Kuroda’s interpretation: the definiteness of the subject in (3) is compatible with either a categorial or athetic interpretation. Note furthermore that (5a) and (5b) can be rendered by the single German sentence in (6) and the choice between the two interpretations depends on the context.

- (6) Der Hund läuft.
 ‘The dog is running.’

Note that (6) would be interpreted unambiguously as a categorial sentence in Brentano’s and Marty’s theory.

In Lambrecht (1994), thethetic-categorial distinction is even more explicitly localized on the pragmatic or context-dependent level of sentence structure. A sentence with topic-comment articulation is considered to represent a categorial judgment, while a sentence without such an articulation (i.e., a topicless sentence) represents athetic judgment. On the other hand, Lambrecht claims that the same syntactic structure, expressing the same *logical* proposition, can have different *information* structures in different discourse contexts. For example, Lambrecht (1994: 121) suggests that sentence (7a) is compatible with either the categorial reading associable with (7b) or thethetic reading associable with (7c):

- | | | | |
|-----|----|--------------------------------|------------|
| (7) | a. | The children went to school. | |
| | b. | What did the children do next? | Categorial |
| | c. | What happened? | Thetic |

The basic claim is that neither the syntactic nor the semantic structure of (7a) determines its information structure. The categorial orthetic character of the sentence is a matter of pragmatics and dissociated from its syntactic and logical properties.

As we shall see in the next sections, the main problem with theories positing the topic–prominence of Hungarian sentence structure is that on this approach the relevant properties of sentence structure should be accounted for on the basis of the categorial–thetic dichotomy defined on purely logical grounds, whereas this dichotomy is used in current approaches to information structure in reference to essentially pragmatic aspects of sentence structure. In order to clarify the issues at hand we will have a closer look at the left periphery of Hungarian sentences.

3 The left periphery of Hungarian sentences: the preverbal domain

In order to evaluate the referential and pragmatic properties of the constituents appearing in the Topic position of Hungarian sentences, a brief review of some of the main syntactic properties of the left periphery in Hungarian is called for.

The left periphery of Hungarian sentences—similarly to Romance and Germanic languages—contains constituents with specific scope-discourse functions. Since the

influential work of Rizzi (1997), the structure of the left periphery has been analyzed in terms of a split-CP approach within Chomskyan theory.

The specifier of each functional projection in the CP-field hosts a constituent characterized by a specific function that also determines its relationship with the constituent that the functional head selects as its complement. The arguments of the verb raise more or less optionally from their VP-internal positions to the specifier positions of these projections in order to check the relevant features of the corresponding functional projections. In Hungarian syntax, the CP-field corresponds roughly to the preverbal domain of the sentence and the functional heads are layered according to the scheme in (8) (Brody 1990, 1995; Szabolcsi 1997; É. Kiss 1998, 2002; Puskás 1998, 2000):^{4,5}

(8) Top* – DistQ* – Foc

Accordingly, the highest functional projection is TopP. The specifier of this projection is filled by a constituent interpreted as the topic of the sentence.⁶ According to É. Kiss, the function of this constituent is to foreground “an individual (a person, an object, or a group of them) from among those present in the universe of discourse as the subject of the subsequent predication.” (É. Kiss 2002: 9). This accords intuitively with the characterization of a categorial judgment described above. TopP is a recursive projection: more than one Topic constituent can occur in the preverbal field, but they must follow each other consecutively.⁷ The specifier of TopP can host not only the grammatical subject but also any other argument of the verb.

As the examples (9a–d) show (É. Kiss 1987: 24–25), the grammatical subject does not play any prominent role in basic sentence structure: each of the following examples is a neutral sentence:⁸

⁴The terms that designate a particular functional projection in the CP-field may vary in different approaches to Hungarian syntax, even though the assumptions about them are rather similar. For the sake of simplicity, we will neglect these differences in the present paper.

⁵The Kleene-star marks the heads of the functional projections that can be iterated.

⁶The terminology used currently in Hungarian linguistics is somewhat misleading because the word “topic” is used to designate a syntactic constituent rather than a particular kind of referent (Lambrecht 1994). In fact, it is this unfortunate use of the term that is partly responsible for some of the problems which we are going to address in more detail further below. In order to avoid confusion we will use the term “topic” in the sense “topic referent” or “expression which has the pragmatic role of topic” (in the latter case the term is synonymous with the term “topic expression”). The term “topic position” will be used in the sense “position identified as the Specifier of TopP in Hungarian linguistics” and the term “topic constituent” will designate a constituent occupying the SpecTopP position. We will argue that SpecTopP is not necessarily filled by a topic expression, consequently the designation TopP is inappropriate in Hungarian syntax.

⁷As we shall see presently, only sentence adverbials such as *tegnap* ‘yesterday’, *állítólag* ‘allegedly’ can be inserted between two TopP constituents. These sentence adverbials can in fact be adjoined to a TopP.

⁸It is in itself an interesting question how neutrality should be explained. However, this would go much beyond the aim of the present paper.

- | | | |
|--------|--|-------------------------|
| (9) a. | [Péter] _{Top} elolvasta az újságot.
Peter-nom read the newspaper-acc
'Peter has read the newspaper.' | Subject |
| b. | [Az idős asszonyt] _{Top} elütötte a vonat.
the old woman-acc ran over the train-nom
'The old woman was run over by the train.' | Object |
| c. | [Jánosnak] _{Top} gyűrött volt a ruhája.
John-dat crumpled was the suit-his-nom
'John's suit was crumpled.' | Possessor |
| d. | [A vonatokon] _{Top} megszaporodtak a
the trains-on multiplied the
rablótámadások.
robberies
'The robberies in trains became more frequent.' | Locative
(adverbial) |

While in (9a), the topic is the grammatical subject of the sentence, in (9b), it is the object NP, in (9c), the dative NP, and in (9d), the locative complement.

The constituents dominated by the lowest TopP form the predicate or comment part of the sentence: they are claimed to denote as a whole what is asserted about the constituent in SpecTopP. Topic and predicate (comment) are thus construable as complementary notions which define the information structure of the sentence in parallel with syntactic structure. The preverbal part of the predicate (called "focus field" in Brody 1990) is strictly ordered and can contain one or more DistQPs dominating each other and one FP projection. The specifier of DistQ hosts quantifier-type expressions with a distributive reading, for example, universally quantified expressions. Several distributive quantifiers can follow each other in the preverbal field, but no other expression type can be inserted between them. As for SpecFP, this position can contain a relatively heterogeneous range of expressions that are in complementary distribution: we can find here a referential expression interpreted as an identificational focus, a negative quantifier, or a focused indefinite. This is also the obligatory position reserved for verbal particles or bare NP arguments that must precede the verb if SpecFP is not filled by any other constituent. There is only one FP projection in the preverbal field. If FP is projected, the verb itself must move to the F head. Otherwise, the verb remains under VP⁹ and immediately follows the distributive quantifier(s) or the topic constituent(s) if TopP and/or DistQP project.

The examples (10a)–(10c) below illustrate one impossible and two possible realizations of the left periphery in Hungarian:

⁹The analysis adopted by É. Kiss (2006) is slightly different from the one presented in this section. In her approach, the verb always leaves its base position (that is the VP-shell) overtly and raises minimally to the head of a functional projection called PredP.

- (10) a. [_{Top} Péter [_{Top} Marit [_{DistQP} többször is
Peter-nom Mary-acc several times even
[_{FP} el-hívta sétálni]]]].
pfx-invited to-walk
‘Peter asked Mary for a walk several times.’
- b. *[[_{Top} Péter [_{DistQP} többször is [_{Top} Marit
Peter-nom several times even Mary-acc
[_{FP} el-hívta sétálni].
pfx-invited to-walk
‘Peter asked Mary for a walk several times.’
- c. [_{Top} Péter [_{DistQP} többször is [_{FP} Marit hívta el
Peter-nom several times even Mary-acc invited pfx
sétálni]]]].
to-walk
‘Peter asked MARY for a walk several times.’

(10a) contains two expressions in two sentence-initial Topic positions. The predicate part of the sentence is dominated by DistQP and contains an adverbial with distributive reading in SpecDistQP and a verbal particle in SpecFP in the preverbal field. The verb is in the head F. (10b) is ill-formed because DistP is placed between two TopPs. In (10c), SpecFP hosts a referential expression interpreted as an identificational focus and the verb is raised to the head F. Since SpecFP is filled by a focused expression, the verbal particle must remain in a lower position, and follows the verb.

Additionally, the same surface string can have different syntactic structures with distinct interpretations depending on the prosodic and distributional properties of the constituents. The prosodic and distributional properties constitute two criteria often evoked in the Hungarian linguistic literature in order to identify the boundary between the topic and the predicate part of the sentence (É. Kiss 1994, 2002; Kálmán 2001). The identification of such a topic–predicate boundary is considered necessary in order to determine the appropriate syntactic position of the constituents that can, in principle, occur in SpecTopP or inside the preverbal domain of the predicate. For instance, a definite expression can occupy either SpecTopP or SpecFP. This can be illustrated by (11a–c), where the sequence in (11a) can be assigned the syntactic structure in (11b) or the one in (11c):

- (11) a. Mari telefonált Péternek.
Mary-nom telephoned Peter-dat
‘Mary called Peter.’
- b. [_{TopP} Mari₁ [_{VP} telefonált t₁ Péternek]]
- c. [_{FP} Mari₁ telefonált [_{VP} t₁ Péternek]]

By looking at the linear order of the constituents alone, nothing allows us to determine which syntactic position is actually occupied by the (immediately) preverbal constituent *Mari* in (11a), but if we apply the prosodic criterion or the adverbial test, we can delineate the predicate part in both sentence structures in a straightforward way.

According to the prosodic criterion formulated by É. Kiss (2002), the first obligatory stress of the sentence falls on the first major constituent of the predicate. She

claims that the topic constituent can be stressed or unstressed but this stress can never be heavier than the stress of the first lexical element of the predicate.¹⁰ This means that in the case of a sentence initial string composed of the constituents a and b, the patterns (12a) and (12b) but not the one in (12c) can correspond to a topic–predicate articulation (the symbol ' denotes stress):

- (12) a. 'a 'b
 b. a 'b
 c. 'a b

The structure in (11b) corresponds to a sentence in which the constituent *Mari* is the topic and the constituent *telefonált Péternek* 'telephoned to Peter' is the comment. Under this interpretation, the verb bears stress, whereas the preverbal and postverbal arguments are optionally stressed, as represented in (13a) and (13b).¹¹ In structure (11c), the constituent *Mari* is focused and it is integrated into the predicate part. Under this interpretation the sentence lacks any topic constituent in the CP field and the sentence has a focus–presupposition structure. In the case of such a semantic structure, *Mari* is obligatorily stressed and the verb and the postverbal argument(s) become unstressed, as shown in (13c):

- (13) a. 'Mari 'telefonált 'Péternek.
 b. Mari 'telefonált 'Péternek.
 c. 'Mari telefonált Péternek.

Another way to separate the topic and the predicate part of the sentence is related to the distribution of sentence adverbials such as *tegnap* 'yesterday' (if non-focused), *valószínűleg* 'probably' and *állítólag* 'allegedly'. If these adverbials appear preverbally, they must either precede the expression in topic position or follow it immediately; if the sentence contains more than one expression in the (iterated) topic position, a sentence adverbial can intervene between them. The only restriction is that the adverbial cannot appear inside the preverbal part of the predicate. This distributional property of the adverbials mentioned above is also confirmed by their behavior in the structures (14a) and (14b) corresponding to (11b) and (11c):

- (14) a. [(tegnap) [TopP Mari₁ (tegnap) [VP telefonált t₁ Péternek]].
 yesterday Mary yesterday telephoned Peter-dat
 b. [(tegnap) [FP Mari₁ (*tegnap) telefonált₂ [VP t₁ Péternek]].
 yesterday Mary yesterday telephoned Peter-dat

The preverbal field is not necessarily filled, since none of the functional projections TopP, DistQP, or FP, projects obligatorily. In the simplest case, the sentence

¹⁰É. Kiss (2002) accounts for the prosodic structure of Hungarian sentences by applying Chomsky and Halle's Nuclear Stress Rule (Chomsky and Halle 1968). A consequence of this view is that she postulates the existence of at least two stress levels in Hungarian. However, as several phoneticians (Nádasdy and Kálmán 1994; Kálmán 2001) point out, only one degree of stress has phonological relevance in Hungarian prosody. Therefore, it suffices if we distinguish stressed and unstressed words.

¹¹The stress pattern characterizing (13a) corresponds to the so-called "neutral intonation" of a Hungarian sentence, where each lexical element of the sentence bears stress. On the basis of phonetic experiments, Hunyadi (2002) considers this stress pattern to be the unmarked case of an Intonational Phrase in Hungarian.

corresponds to a VP projection with the verb in its head and the arguments of the verb in their basic complement position:

- (15) [_{VP} Esik az eső].
 falls the rain-nom
 ‘It is raining.’

Such sentences arethetic and thus lack a topic–comment articulation.

To sum up, in this section we have given a brief characterization of the left periphery of Hungarian sentences. The CP–field of Hungarian contains three main functional projections dominating each other: TopP, DistQP, and FP. The specifier of each projection can host expressions with specific scopal or discourse properties. In the next section, we examine some referential and pragmatic properties of the constituents appearing in SpecTopP. We will show that an NP occurring in this position does not always meet the pragmatic requirements of a topic formulated in most of the theoretical approaches to Hungarian sentence structure, consequently we must abandon the hypothesis of a strict correlation between syntactic and pragmatic structure in Hungarian sentences.

4 Some problems with the notion of topic in Hungarian

In Hungarian linguistics, the specifier position of TopP is claimed to host a constituent interpreted as the topic of the sentence, that is, a constituent denoting an individual (a person, an object, or a group of them) about which the predicate part of the sentence asserts something. Furthermore, this individual is usually characterized by the pragmatic property of being identifiable independently of the assertion, in other words, the topic referent must meet the *familiarity condition*. According to É. Kiss (1994, 1999, 2002), Kálmán (2001), Gyuris (2003), and Maleczki (2001, 2003), the constituent in SpecTopP must be a referring expression, i.e., either a definite expression (including generics, cf. (16) and (17)), or a specific indefinite, where specificity is interpreted in the sense of Enç (1991), cf. (18):

- (16) A dinoszaurszoknak két lábuk van.
 the dinosaurs-dat. two leg is
 ‘Dinosaurs have two legs.’
- (17) Péter megérkezett.
 Peter-nom pfx-arrived
 ‘Peter has arrived.’
- (18) Az egyik vendég/két vendég megérkezett.
 the one-of guest-nom/two guest-nom pfx-arrived
 ‘One of the guests has arrived.’
 ‘Two guests have arrived.’

In (18), the expressions *az egyik vendég* ‘one of the guests’ and *két vendég* ‘two guests’ are considered to be specific expressions since they denote a member (or a subgroup) of a group of guests already perceived as present in the discourse situation or evoked in the context. The referentiality constraint explains why bare NPs are excluded from the Topic position, as illustrated in (19a) and (19b):

- (19) a. *_[TopP] Vendég megérkezett].
 guest-nom pfx-arrived
 ‘A guest has arrived.’
 ‘Guests have arrived.’
- b. _[FP’] Vendég érkezett].
 guest-nom arrived
 ‘A guest has arrived.’
 ‘Guests have arrived.’

Maleczki (2001) claims that a bare NP like *vendég* ‘guest’ is not specified with respect to the number of individuals it denotes. Therefore, it does not refer to any individual but denotes a property whose semantic function is to constrain the meaning of the verb. This explains why a bare NP cannot occur in SpecTopP (as in (19a)) and why it has to appear in SpecFP in order to form a predicative construction with the verb. Consequently, the sentence in (19b) does not assert something about a particular guest, it must rather be interpreted as announcing an event of “guest-arrival”.

The referentiality constraint on topic expressions does not seem to apply to the so-called contrastive topic, i.e., to a sentence-initial constituent with a special fall-rise intonation contour and a contrastive reading.¹² É. Kiss (2002) and Gyuris (2003) point out that bare NPs, and even quantified expressions, can occur in SpecTopP if they exhibit this special contour (denoted by / and \) and a contrastive reading:¹³

- (20) a. /Biciklit \sok lány látott.
 bicycle-acc many girl-nom saw
 ‘As for bicycles, many girls saw some.’
- b. /Legalább három regényt \kevés diák olvasott el.
 at least three novel-acc few student read pfx
 ‘At least three novels were read by few students.’

É. Kiss and Gyuris (2003) account for this fact by assuming that non-referential expressions appearing in topic position and realizing a fall-rise intonation contour denote an individualized property, namely of being (some instantiation of) a bicycle or of being a group of novels with cardinality three. In their approach, the predicate part of the sentence serves to assert something about this individualized property.¹⁴

In what follows we show that these discourse functions and the referentiality constraint attributed to constituents appearing in SpecTopP in Hungarian sentences raise some serious descriptive problems and theoretical challenges for accepted analyses.

¹²Note that the situation is more complex than suggested by this formulation. In some cases, the special fall-rise intonation or the contrastive reading alone may identify the topic as being contrastive. These complexities need not concern us in the present context, however.

¹³Examples (20a) and (20b) are taken from É. Kiss (2002: 22).

¹⁴That contrastive intonation and contrastive reading admit constituents in sentence-initial topic position that are otherwise excluded from this position, is attested in other languages as well. See, for instance, Kuno (1972), Kawamura (2002) for Japanese and Arregi (2003) for Spanish.

4.1 Referentiality, specificity and the givenness requirement

The characterization of the constituent in sentence-initial topic position as denoting an individual about which the predicate asserts something, fits one of the current conceptions of topichood called the “topic-as-an-entity approach” in McNally (1998). The definition proposed to capture the main differential properties of this constituent in Hungarian is in fact analogous to the often-cited definitions of topic based on the notion of “aboutness”. The most well known of these definitions are proposed by Reinhart (1981) and Gundel (1988). On the other hand, the aboutness-criterion is usually paired with a givenness or familiarity requirement as an inherent property of topics cross-linguistically.¹⁵ We can formulate this requirement in cognitive terms by saying that a topic referent must be identifiable both for the speaker and the hearer or it must at least be accessible on the basis of the situation or the discourse context (Lambrecht 1994). Since indefinites denoting a brand-new referent do not satisfy the identifiability or accessibility requirement, they are usually claimed not to be able to function as topic expressions. This explains why topicalized constituents with non-contrastive reading are restricted to definite or—in some rather marginal cases—specific indefinite expressions across languages (Li and Thompson 1976; Gundel 1988; Gundel and Fretheim 2004).¹⁶ For some authors, such as Erteschik-Shir (1997), the identifiability condition is replaced by the more restrictive requirement that the topic referent must be situationally or contextually evoked, that is, it must be in the cognitive state of activeness.¹⁷ In view of this requirement, sentences with a definite but contextually unbound expression cannot be considered to be categorical on the pragmatic level.

Within Hungarian linguistics, the notions of referentiality and specificity play a central role in defining the topic. As a consequence, it is important to provide an overview of how these notions have been defined in this tradition.

The term “referentiality” has been used in several ways in the linguistic literature, and has received both a strict and a loose interpretation. On the strict interpretation, the function of a referring expression is to identify an individual, i.e., to denote an e-type semantic object. (Heim and Kratzer 1998; Dobrovie-Sorin and Beyssade 2005). According to this view, only definite expressions are referential. On the loose interpretation, on the other hand, referring expressions are expressions that can serve as antecedents for a pronominal in an anaphoric relation (Alberti 1997). This view is expressed in Discourse Representation Theory by the claim that a referring expression introduces a discourse referent (Kamp and Reyle 1993; Szabolcsi 1997). According to this interpretation of referentiality, not only definites but also indefinites, except for bare common nouns and indefinites introduced by a modified numeral, can have a referential function.¹⁸

¹⁵For an overview of the literature on topic, based on the referential and cognitive properties attributed to topic expressions, the reader is referred to Gundel and Fretheim (2004).

¹⁶See the well-known example from Prince (1985) analyzed, for instance, in Gundel (1988: 215):

(i) An old preacher down there, they augered under the grave where his father was buried.

¹⁷About the activation states of (identifiable) referents, see Chafe (1987).

¹⁸In his analysis of Hungarian nominal expressions, Alberti (1997) distinguishes between degrees of referentiality related to the combination of specificity and definiteness.

The notion of specificity has acquired a multitude of interpretations, often incompatible with each other, during the last few decades. Since the present paper will be concerned with the two interpretations adopted in Hungarian linguistics only, we refer the reader to Galmiche (1983), Farkas (1994, 2002) and von Heusinger (2002) for a detailed overview of the different approaches. As for the Hungarian literature, É. Kiss (1994) and Szabolcsi (1997) adopt two different ways of defining specificity (and hence two ways of constraining the range of possible topic expressions). According to the former approach, specificity has to do with familiarity or presuppositionality, whereas the latter is based on scopal properties of the nominal expression.

É. Kiss's conception of specificity has changed slightly during the last few years. In earlier work, she claimed that "in accordance with its role of foregrounding an entity of the world the existence of which is presupposed, the notional subject/topic must be referential and specific, or generic" (É. Kiss 1994: 15). In the case of non-generics, presuppositionality characterizes definites and indefinites that refer to a member of a group already mentioned or a group "present" in the discourse situation (É. Kiss 1994: 16). This interpretation of the notion of specificity originates in Enç (1991), who, on the basis of Turkish data, considers those expressions to be specific whose discourse referents are linked to previously established discourse referents. In the case of a definite NP, which is claimed to always be specific, this linking is the identity relation. An indefinite is considered specific if it has a partitive reading, that is, if it refers to a member (or subgroup) of a contextually determined set.¹⁹ If we look at the Hungarian data, we can see that definites as well as specific indefinites (i.e., the ones with a partitive reading) can, in fact, occur in topic position, as we saw in (17) and (18), repeated here as (21) and (22), or in (23) and (24):²⁰

- | | | | | |
|------|------------------------|------------------------------|------------------------------|---|
| (21) | Péter
Peter-nom | megérkezett.
pfx-arrived | | Identity relation |
| | | | | ‘Peter has arrived.’ |
| (22) | Az egyik
the one-of | vendég/két
guest-nom/two | vendég
guest-nom | megérkezett.
pfx-arrived |
| | | | | Partitive reading |
| | | | | ‘One of the guests has arrived.’ |
| | | | | ‘Two guests have arrived.’ |
| (23) | János
John-nom | választékosan
elaborately | beszélt.
spoke | Identity relation |
| | | | | ‘John chose his words carefully.’ |
| (24) | Egy
a | nyelvtész
linguist | választékosan
elaborately | beszélt.
spoke |
| | | | | Partitive reading |
| | | | | ‘A linguist (=one of the linguists) chose his words carefully.’ |

In É. Kiss (1999, 2002) the interpretation of specificity is somewhat loosened in order to account for the possibility of having an existential quantifier denoting a completely new referent in topic position, as in (25):

¹⁹Most of the approaches in Hungarian theoretical linguistics are based on this conception of specificity. The only exception is, as we shall see, Szabolcsi (1997).

²⁰Examples (23) and (24) are taken from É. Kiss (1994: 15).

- (25) Valaki kopog.
 somebody knocks
 ‘Somebody is knocking.’

É. Kiss claims that in the case of sentences like (25), the constituent in topic position is “also specific in a certain sense” if they are uttered in situations “in which the existence of an unidentified person or object has been inferred” (É. Kiss 2002: 11). For her, the sentence-initial constituent in such sentences is associated with an existential presupposition. This leads her to assume that the condition for a constituent to be able to occur in topic position is to carry an existential presupposition.

The problem with this view is that sentences like (25) can hardly be considered as carrying an existential presupposition, even if (25) is uttered in a situation where knocking at the door has been heard. Arguably, such a situation does not presuppose the existence of a ‘knocking’ individual at all, rather it simply asserts the existence of such an individual. Presuppositions, as known, are not affected by negation. However, the denial of (25) is *Nem kopog senki* ‘Nobody is knocking’, i.e., identical with the denial of the alleged presupposition, which proves that (25) cannot be associated with an existential presupposition. Consequently, the brand-new character of the constituent *valaki* (‘somebody’) is incompatible with the notion of specificity in the sense of Enç, since the latter is clearly based on the notion of familiarity, corresponding to givenness in information structure. On the other hand, it is easy to find examples in Hungarian where the event described by the sentence has no direct impact on the discourse situation, yet we find a non-specific indefinite in topic position:

- (26) Valaki bekopogott az ajtómon tegnap.
 somebody pfx-knocked the door-my-on yesterday
 ‘Somebody knocked at my door yesterday.’

We may thus conclude that the constituent occupying the topic position need not be specific, contrary to É. Kiss’s claim.

Szabolcsi (1997) defines specificity in a rather different way and adopts a position based on the logical properties of the constituent in question. For her, in order to appear in topic position, an expression must be referential (must introduce a discourse referent, that is, it must contribute an individual to the interpretation of the sentence) and specific, in the sense that it has to be definite or if it is indefinite, it must take widest scope in its own clause. The combination of referentiality and (scopal) specificity admits not only definites but a large range of indefinites (such as the existential quantifiers *valaki* ‘somebody’, *valami* ‘something’, NPs introduced by an indefinite article or by a non-modified numeral, with or without partitive reading) in topic position:

- (27) Valaki mindenkit felhívott.
 somebody everybody called
 ‘Somebody called everybody.’ = ‘There is a person such that he/she called everybody.’
- (28) Egy kutya megharapott két gyereket.
 a dog bit two child-acc
 ‘A dog bit two children.’ = ‘There is a dog such that it bit two children.’

The advantage of Szabolcsi's specificity condition is that it covers all types of NPs that may occur in topic position. However, the price of her solution is that the Identifiability Condition (or more generally, the Givenness Condition) can no longer be evoked. In Szabolcsi's approach, even an NP denoting a brand-new referent can be the topic of the sentence, which contradicts current assumptions about the pragmatic function of topic. We will return to the problems raised by the two approaches in subsequent sections in some more detail.

In what follows, we will use the term specificity in the sense of Enç (1991) because this is the view adopted by most work on topic in Hungarian theoretical linguistics (cf., in addition to É. Kiss's works already cited, also Kálmán 2001; Maleczki 2002; and Gyuris 2003, among others).

In sum, the constituent appearing in SpecTopP is generally claimed to be a specific expression in Hungarian linguistics. The specificity requirement is associated with the pragmatic function of topic observed across languages. The fact that expressions denoting brand-new referents can also appear in topic position, however, makes this requirement rather problematic. Therefore, É. Kiss (2002) assumes that sentences with a non-specific indefinite in SpecTopP carry an existential presupposition. In this subsection, we presented some arguments against this view. A different strategy would be to associate two (or more) distinct syntactic positions to specific and non-specific expressions in the preverbal field. We will examine this possibility in the next subsection.

4.2 Indefinite NPs in SpecTopP

As we pointed out in the previous subsection, the specifier position of TopP in Hungarian can host not only definite expressions but also indefinites with specific or non-specific reading. This is not a marginal possibility but a fairly common phenomenon: a sentence with an indefinite in SpecTopP is as well-formed as a sentence with a definite expression in that position, even without a contrastive reading:

- (29) Mari/Egy gyerek lelépett az úttestre.
 Mary/a child down-stepped the driveway-on
 'Mary/A child stepped down on the driveway.'
- (30) A nővérem/Egy nő elájult.
 the sister-my/a woman fainted
 'My sister/A woman fainted.'
- (31) Péter/Valaki elvesztette a hitelkártyáját.
 Peter/somebody lost the credit card-his/her-acc
 'Peter/Somebody lost his/her credit card.'

One might argue that definites and indefinites only apparently share the same position, but that in reality, indefinites (or at least non-specific indefinites) are structurally closer to the verb than definites. For instance, one could assume that in (31) the indefinite subject *valaki* 'somebody' has not raised to the CP-field but has remained in a lower position (in SpecTP, for example), realizing a kind of neutral sentence with a basic SVO order. However, such an assumption must be rejected for at least three

reasons: one concerning grammatical relations, another concerning the relative position of clausal elements, and the third concerning claims about “neutral” constituent orders.

First, if this assumption were correct, we would expect to find only sentence-initial indefinite grammatical subjects since presumably only the subject has to raise in a checking position in TP. However, any argument of the verb can be sentence initial. Thus, such arguments must have raised from their initial position:

- (32) Valakit elütött a vonat. Indefinite object
 somebody-acc pfx-hit the train-nom
 ‘Somebody has been hit by the train.’
- (33) Valaminek nagyon örül Péter. Indefinite indirect object
 something-dat very rejoice Peter-nom
 ‘Something delights Peter very much.’

Second, a (specific or non-specific) indefinite can be followed by a distributive quantifier or a focused expression in the preverbal field. If, following usual assumptions about Hungarian, distributive quantifiers are assigned to positions in the CP-field, the former, too, must be located in that field. This positional argument is illustrated in (34) and (35):

- (34) Valaki minden fámat kivágta. Distributive Q
 somebody-nom all tree-my-acc pfx-cut
 ‘Somebody has cut down all my trees.’
- (35) Valami ehhez a vidékhez köt Focused
 something-nom this-to the region-to links expression
 bennünket.
 we-acc
 ‘Something keeps us tied to THIS region.’

Third, a sentence with an indefinite in sentence-initial position is not more “neutral” than a sentence with a definite expression in SpecTopP. Both types can be uttered “out of the blue”, just like an English SVO sentence with a definite or an indefinite NP in subject position.

Another possibility to account for the distribution of these expressions in the preverbal domain might be to postulate two, or even three, separate specifier positions in the CP-field, each of them hosting a constituent characterized by a particular referential property. As exemplified by the position of the preverbal particle in sentences (36)–(37) a non-specific indefinite can actually occur in more than one preverbal position:

- (36) Egy gyerek esett le a villamosról. Postposed preverb
 a child-nom fell pfx the tram-from
 ‘A child has fallen off the tram.’
- (37) Egy gyerek leesett a villamosról.
 a child-nom pfx-fell the tram-from
 ‘A child has fallen off the tram.’
 ‘One of the children has fallen from the tram.’

In (36), the constituent *egy gyerek* ‘a child’ is interpreted as a non-specific expression occupying the same position as a focalized constituent, namely SpecFP.²¹ This is shown by the fact that the verbal particle which must raise to SpecFP (and hence precede the verb) if this position is filled by no other element (cf. Sect. 3), has remained in a lower position, following the verb that has raised to the head F. In SpecFP the indefinite can have two interpretations. It can be taken as a (contrastively) focused expression (*A CHILD has fallen off the tram, not an ADULT*); in this case, the verb and the postverbal material represents the presupposed information. Under the second interpretation, the sentence—similarly to verbal sentences such as (38)—has to be qualified as an “all-new” (or *thetic*) sentence:

- (38) Leesett egy gyerek a villamosról.
 pfx-fell a child-nom the tram-off
 ‘A child has fallen off the tram.’

As for (37), the indefinite *egy gyerek* ‘a child’ is no longer in SpecFP but in a higher position, since the specifier of FP is filled here by the verbal particle *le*. The indefinite can have a specific or a non-specific reading in this position: it can denote a member of a contextually determined set of children, or a completely unknown child who is not linked to any given set.

The properties of sentences such as (36)–(38) justify the following two claims. First, the relative distributional freedom of non-specific indefinites in certain sentence types shows that there is no one-to-one correspondence in Hungarian between sentence structure and the type of judgment it expresses. For instance, certain *thetic* sentences can be realized by means of at least three types of syntactic structures (to be discussed in more detail in Sect. 4.3). Second, as (38) illustrates, the same sentence can be ambiguous between a specific and a non-specific reading of the sentence-initial constituent. In this connection, we must still show that sentence-initial constituents with either a specific or a non-specific interpretation actually appear in the same syntactic position and that this position is identical to the topic position occupied by definite expressions.

The demonstration is based on distributional evidence of the following sort. If the preverbal indefinite is not located in SpecFP, it appears in a position higher than SpecDistQP, since such an indefinite (with either a specific or a non-specific reading) must precede the distributive quantifier:

- (39) a. Egy idegen/Az egyik férfi többször is bekopogott az
 a stranger/the one-of man several times even pfx-knocked the
 ajtómon.
 door-my-on
 ‘A stranger / One of the men has knocked on my door several times.’

²¹Indefinite pronouns composed of the morpheme *vala-* ‘some’ and a *wh*-word such as *valaki* ‘somebody’, *valami* ‘something’ etc. are, in fact, excluded from SpecFP, contrary to expressions containing an indefinite determiner. For an explanation of this fact, see Gécsegy (2003).

- b. *Többször is egy idegen/az egyik férfi
 several times even a stranger/the one-of man
 bekopogott az ajtómon.
 pfx-knocked the door-my-on

Two indefinites can also appear in this position, in any order—the specific can precede the non-specific or the other way around:

- (40) a. Az egyik barátomat egy öregember idiótának nevezte.
 the one-of friend-my-acc an old man-nom idiot-dat called
 ‘One of my friends was called idiot by an old man.’
 b. Egy öregember az egyik barátomat idiótának nevezte.
 an old man-nom the one-of friend-my-acc idiot-dat called
 ‘An old man called one of my friends idiot.’

An indefinite (whether specific or not) can even precede or follow a definite expression in topic position:

- (41) a. Marinak valaki szerelmes leveleket ír.
 Mary-dat somebody-nom love letters-acc writes
 ‘Somebody writes love letters to Mary.’
 b. Valaki Marinak szerelmes leveleket ír.
 somebody-nom Mary-dat love letters-acc writes
 ‘Somebody writes love letters to Mary.’

In this connection, it is interesting to see how the two criteria proposed in Hungarian linguistics for the delineation of the so-called topic and predicate part of the sentence, evoked in Sect. 3, apply to indefinites in sentence initial position.

The adverbial test, which is based on distributional properties of sentence adverbials, confirms the hypothesis that specific and even non-specific indefinites can appear in topic position. In this respect, they behave similarly to definite expressions, since an adverbial like *tegnap* ‘yesterday’ can be inserted between such an indefinite and any other constituent following it in the preverbal field:

- (42) a. (Tegnap) a házmester (tegnap) többször is
 yesterday the house-porter yest. several times even
 (*tegnap) rákiáltott Marira.
 yest. pfx-shouted Mary-onto
 ‘Yesterday the house-porter shouted at Mary several times.’
 b. (Tegnap) két szomszédja (tegnap) többször is
 yesterday two neighbour-her yest. several times even
 (*tegnap) rákiáltott Marira.
 yest. pfx-shouted Mary-onto
 ‘Yesterday two of her neighbours shouted at Mary several times.’
 c. (Tegnap) egy ismeretlen (tegnap) többször is
 yesterday a stranger yest. several times even
 (*tegnap) rákiáltott Marira.
 yest. pfx-shouted Mary-onto
 ‘Yesterday a stranger shouted at Mary several times.’

This shows that the sentence initial indefinites in (42b) and (42c) must be located outside the predicate part, just like the definite expression in (42a).

As for the prosodic criterion, the situation is more complex. Recall that the prosodic criterion says that an expression in topic position is optionally stressed or can remain unstressed, whereas the first major constituent of the predicate is always stressed. We saw in Sect. 3 that this claim is confirmed by sentences with a sentence initial definite expression like (14a–c), repeated here as (43a–c):

- (43) a. 'Mari 'telefonált 'Péternek.
 Mary-nom telephoned Peter-dat
 b. Mari 'telefonált 'Péternek.
 c. 'Mari telefonált Péternek.
 'Mary called Peter.'

However, it must be noted that the stress on the constituent in topic position (i.e., in (43a) and (43b)) is not completely optional, but related to pragmatic factors. The first stress pattern (43a) corresponds to a neutral (i.e., non-topicalized, non-focused) declarative sentence, where each constituent is equally stressed. According to Puskás (2000: 58), this prosodic pattern characterizes sentences which may be considered adequate answers to a question of the type “What happened?”, that is,thetic sentences. On the other hand, if the verb bears stress and *Mari* is unstressed as in (43b), the sentence can only be an adequate answer to a question such as “What did Mary do?”. This presupposes a context where the referent of the subject NP has already been evoked and the sentence expresses a categorical judgment. The same observation can be made about a specific indefinite in topic position, as in (44a) and (44b):

- (44) a. Az 'egyik barátja 'telefonált 'Péternek.
 the one friend-his telephoned Peter-dat
 b. Az egyik barátja 'telefonált 'Péternek.
 'One of his friends called Peter.'

Finally, if the topic position is filled by a non-specific indefinite, this constituent will be obligatorily stressed, which is in full accordance with the observations of Varga (1985), who claims on the basis of phonetic experiments that constituents denoting a brand-new referent in the preverbal field are always stressed.²² A sentence with such an indefinite in topic position obligatorily realizes the prosodic pattern of neutral sentences, since all the main constituents bear equal stress:

- (45) Egy 'idegen 'vágja a 'fát az 'erdőben.
 a stranger-nom cuts the tree-acc the wood-in
 'A stranger is cutting the trees in the woods.'

The observation that the degree of givenness of a referent correlates with the prosodic properties of the constituent it denotes is not a new one (cf. the cross-linguistic observations in Givón 1988, and Lambrecht 1994). On the other hand, as we saw in Sect. 4.1, the givenness properties of the referent can also have an impact on its topical or non-topical status in the sense that a brand-new referent or—in some cases—an

²²Note that this does not work in the opposite direction: if a constituent is stressed it does not follow that it denotes a “brand-new” referent.

inactive referent cannot be taken as a topic even if the expression it denotes appears in the topic position.

In sum, in the case of a sentence with a non-specific indefinite in first position, optional stress is out of the question and thus the prosodic boundary between the non-specific indefinite and the verb is the same as the one appearing between any of the major constituents of the sentence. Since in such a sentence each of the contentful words bears obligatory stress, the first obligatory stress falls necessarily on the first contentful element of the non-specific indefinite, even if it appears in topic position.

The distributional facts observed in this subsection force us to conclude that the specifier of the recursive TopP projection can host not only definite expressions but indefinites as well, with either a specific or a non-specific reading. This means that the constituent filling the syntactic position identified as SpecTopP in Hungarian is not necessarily the topic of the sentence, which casts doubt on the validity of the scheme (8). On the other hand, the prosodic properties of the constituents in the so-called topic position were shown to be related to the pragmatic status of the referents they denote: a non-specific indefinite is never unstressed, even in topic position, since it denotes a brand-new referent.

4.3 The syntactic structure ofthetic sentences

According to current assumptions, the categorical-thetic distinction in Hungarian has a direct impact on the syntactic structure of the sentence: categorical judgments are realized by sentences having a TopP projection, whereasthetic judgments are expressed by mere Predicate Phrases, that is, by sentences that lack a TopP projection (É. Kiss 1998, 2002). However, as we saw in Sects. 4.2 and 4.3, it is possible to have “all-new” (i.e.,thetic) sentences with a non-specific indefinite in SpecTopP. In this section, we will examine other possible syntactic realizations ofthetic sentences in Hungarian in order to show that there is only a partial correspondence between the syntactic structure of the sentence and the type of judgment it expresses. It will become clear that athetic judgment can also be realized by a sentence in which SpecTopP is filled by a definite NP.

As we saw in Sect. 2, the notions of categorical andthetic sentence have been used in contemporary linguistics as pragmatic notions that are defined essentially on contextual grounds. Roughly, a sentence is a categorical sentence if it asserts something about an individual in a context where this individual has been directly or indirectly evoked, whereas athetic sentence is used in contexts where the whole sentence appears as new information, either because it asserts something related to a completely unknown referent, or because it reports an event involving a familiar but not evoked (active) referent.

In Hungarian,thetic sentences are typically realized by verb-initial structures or structures introduced by a bare NP argument attached to the verb:

- (46) a. Árulják a lakásukat a (É. Kiss 2002: 14)
 sell the apartment-their-acc the
 szomszédaim.
 neighbors-my-nom
 ‘My neighbors are selling their apartment.’
- b. Érkezett néhány levél (Maleczki 2001: 169)
 arrived some letter
 ‘There arrived some letters.’
- c. Csalogány dalolt az ablakomban. (Maleczki 2001: 189)
 nightingale warbled the window-my-in
 ‘A nightingale was warbling in my window.’

Note that (46a) also demonstrates the existence ofthetic sentences with definite arguments. The identifiability constraint for topic referents does not mean that an expression with an identifiable referent denotes necessarily a topic referent. In a subclass ofthetic sentences called “event-reporting sentences” in Lambrecht (1994), definite as well as indefinite arguments can appear.²³

Another possibility to realize athetic sentence by means of a mere Predicate Phrase is a structure with a sentence-initial non-specific indefinite in SpecFP:

- (47) Egy autó állt meg a házunk előtt. (É. Kiss 2002: 10)
 a car stopped pfx the house-our in front of
 ‘A car has stopped in front of our house.’

Maleczki (2001) considers athetic even sentences with a non-specific indefinite in a sentence-initial, but not SpecFP, position:

- (48) Egy gyerek virágot szed a kertedben. (Maleczki 2001: 161)
 a child flower-acc picks the garden-your-in
 ‘A child is picking flowers in your garden.’

She assumes that a non-specific indefinite like *egy gyerek* ‘a child’ cannot be in the topic position (even if it occurs “seemingly” in the syntactic topic position), since such an indefinite does not satisfy the familiarity requirement of topicality. The expression *egy gyerek* ‘a child’ denotes here a brand-new referent that cannot be identified independently of the assertion. Yet, she brings no syntactic (or semantic) argument against the assumption that a non-specific indefinite can appear in topic position. We showed in Sect. 4.3 that such indefinites can occupy the very same topic position as definite expressions. The examples with a non-specific indefinite in topic position analyzed in the previous subsections are in fact instances ofthetic judgments that serve to introduce a new referent involved in a particular event into the discourse.

Consider now the following Hungarian sentences:

²³In Japanese, for instance, a *ga*-marked constituent can be interpreted either as a definite or an indefinite expression in athetic sentence (Kuroda 1972).

- (49) a. A 'kutyátok 'megharapta a 'lányomat.
 the dog-your-nom pfx-bit the daughter-my-acc
 'Your dog has bitten my daughter.'
- b. A 'lányomat 'megharapta a 'kutyátok.
 the daughter-my-acc pfx-bit the dog-your-nom
 'My daughter has been bitten by your dog.'
- c. 'Megharapta a 'lányomat a 'kutyátok.
 pfx-bit the daughter-acc-my the dog-your-nom
 'Your dog has bitten my daughter.'
- d. 'Megharapta a 'kutyátok a 'lányomat.
 pfx-bit the dog-your-nom the daughter-my-acc
 'Your dog has bitten my daughter.'

With a flat, neutral prosodic pattern, the sentences in (49) are not only truth-functionally equivalent but can appear in the very same discourse context. They may all serve to report an event of the biting of a particular person by a particular dog, even though none of these individuals are linked to the previous context. Thus, these sentences can be used to answer a question such as "What happened?", as is typical for *thetic* sentences.

The difference between these sentences resides in their different syntactic structures. In (49a) and (49b), one of the arguments of the verb occupies the topic position, whereas in (49c) and (49d), both arguments have remained in a VP-internal position. Since there is no discourse constraint that could differentiate between the pragmatic functions of these sentences, they can be taken as contextually equivalent.

Despite this equivalence, then, the basic information is packaged in four word order variants, suggesting, as argued here, the independence of the *thetic*/categorical distinction from the logical organization in syntactic encoding. In (49a) and (49b) the speaker has reported an event by foregrounding one of the participants of this event. In the case of a sentence with two arguments, one has, in fact, the possibility to foreground any of the arguments, without transforming thereby a *thetic* sentence into a categorical sentence. As for (49c) and (49d), no foregrounding of an argument has taken place, and the postverbal subject and object realize a flat structure where none of the arguments is more prominent than the other. The sentences in (49c) and (49d) seem to be completely free word order variants. The *thetic* interpretation of (49a) and (49b) is actually forced by the prosodic properties of the sentences. If the preverbal argument were unstressed, the sentence could not be used in the context of a question like "What happened?" and would be interpreted as a categorical sentence.

The sentences in (50) show that even a sentence involving only brand-new referents can appear in several variants:

- (50) a. Egy 'kutya 'megharapott egy 'járókelőt.
 a dog-nom bit a passer-by-acc
 'A dog bit a passer-by.'
- b. Egy 'járókelőt 'megharapott egy 'kutya.
 a passer-by-acc bit a dog-nom
 'A passer-by was bitten by a dog.'

- c. 'Megharapott egy 'kutya egy 'járókelőt.
 pfx-bit a dog-nom a passer-by-acc
 'A dog bit a passer-by.'
- d. 'Megharapott egy 'járókelőt egy 'kutya.
 pfx-bit a passer-by-acc a dog-nom
 'A dog bit a passer-by.'

While the examples above are structurally analogous to (49a)–(49d), the difference between the two series is that in (50a)–(50d) the stress pattern indicated is the only one available, since they are all-new sentences in any context. However, even though they are necessarily *thetic*, the speaker may want to construct his utterance by isolating an argument of the verb from the rest of the sentence. Of course, as with (49), foregrounding is not restricted to the subject argument, it is possible with any other argument of the verb as well. Note that foregrounding is performed only by syntactic means, i.e., by raising one of the arguments to a higher syntactic position than the other constituents. From a prosodic point of view, the argument raised to SpecTopP is not isolated from the rest of the sentence, since the latter is characterized by a flat stress pattern.

The above discussion shows clearly that the various word order variants cannot be explained by the topic-comment articulation, since (50a)–(50d) are all *thetic*, hence they lack any such structure. This means that a radically different approach is called for.

5 The two-level approach

The problems discussed in the previous sections have shown that the syntactic position identified as SpecTopP in Hungarian sentence structure can host a constituent that is *not* necessarily the topic of the sentence,

- either because this constituent does not fulfill the referential/pragmatic requirement of topics, namely specificity, the pragmatic correlate of which is identifiability,
- or because the sentence with a definite expression or a specific indefinite in SpecTopP appears in a context where it conveys globally new information; in such a context the sentence expresses a *thetic* judgment and should be considered *topicless*

We propose that these problems can be solved by parceling out the information structure of a sentence into two levels of analysis, a logico-semantic level, and a pragmatico-discursive level. On the former level, context has no direct relevance, whereas on the latter, contextual properties play a determinant role. In what follows, we assume that Hungarian sentence structure principally reflects a logico-semantic articulation contrary to “genuine” topic-prominent languages, whose structure is based on the pragmatico-discursive articulation of the sentence.

As we have shown in Sect. 2, the *thetic*–*categorical* distinction can be interpreted on two levels: on a logical, and on a pragmatico-discursive level. In the original version of Brentano’s and Marty’s theory, the terms *thetic* and *categorical* concern essentially the logical structure of sentences and no contextual factors are referred to. In

contrast, the notions of *thetic* vs. *categorical* sentence are defined in current linguistic theories in pragmatic terms, where the context of utterance influences the selection of the appropriate sentence type in a decisive way. The main difference between the two approaches is that the former is based on the logical concept of logical subjecthood, whereas the latter is based on a strictly pragmatic definition of *topichood*.

The referential and discourse properties of the constituents appearing in the position of *SpecTopP* in Hungarian indicate that *the articulation of Hungarian sentence structure should be defined by means of the original logical thetic–categorical dichotomy, instead of the pragmatic thetic–categorical dichotomy currently used*, the latter characterizing “genuine” topic–prominent languages.

5.1 Logical subject–logical predicate vs. topic–comment

The account we present in this paper derives from a two-level approach to sentence analysis advocated in Kiefer (1977) based on ideas proposed by Prague School scholars.²⁴ Kiefer (1977) makes a clear distinction between the semantic and pragmatic articulation of a sentence, yielding the postulation of two types of relation in the interpretation of sentences:

- (i) the relation of “logical subject–logical predicate”,²⁵ which is defined on the semantic level

The notions of logical subject–logical predicate must be taken in the classical sense: The logical subject of the sentence is an element referring to an individual or set of individuals of which something is predicated. The relationship between logical subject and logical predicate is independent of any context and is based exclusively on the concept of “aboutness”.

- (ii) the topic–comment relation, which is discourse determined

We will adopt the following definition: “The relation *topic-of* expresses the pragmatic relation of aboutness which holds between a referent and a proposition with respect to a particular discourse” (Lambrecht 1994: 127, based on Reinhart 1981). According to this view, the relationship between topic and comment is essentially contextual and is based on the combination of two concepts: on aboutness and on givenness.

The distinction between the relation of logical subject–logical predicate, on the one hand, and the topic–comment relation, on the other, has important consequences for the description of Hungarian. The discussion in the previous sections has suggested that the syntactic structure of Hungarian is determined by the relation of logical subject–logical predicate rather than by the topic–comment relation. In a split-CP approach, the functional projection called *TopP* and claimed to host the topic of the sentence should be replaced by an *LsubjP* projection whose specifier is occupied by the logical subject, with the functional heads dominating the preverbal field of Hungarian. We thus propose that (51) should replace (8).

²⁴With respect to the basic ideas of the Prague School teaching concerning information structure, the reader is referred to Sgall et al. (1973), Daneš (1974), and Dahl (1974).

²⁵This relation should not be confused with the Aristotelian partition of the sentence in Subject and Predicate. It is this relation Brentano and Marty had in mind.

(51) Lsubj* – DistQ* – Foc

Our proposal has the following consequences for the analysis of Hungarian sentences. First, the specifier of the LsubjP projection (which replaces the TopP projection of current approaches) can host any kind of referential—definite, specific indefinite or non-specific indefinite—expressions, where referentiality means denoting a discourse referent, regardless of the degree of familiarity of this referent. The constituent occupying the specifier position of LsubjP functions as the logical subject of the sentence. Let us illustrate this by the example (29) of Sect. 4.2, repeated here as (52a) and (52b):

- (52) a. Mari lelépett az úttestre.
 Mary down-stepped the driveway-on
 ‘Mary stepped down on the driveway.’
 b. Egy gyerek lelépett az úttestre.
 a child down-stepped the driveway-on
 ‘A child stepped down on the driveway.’

In (52a) and (52b) the sentence-initial constituents *Mari* and *egy gyerek* ‘a child’, respectively, occupy the position of LsubjP and denote the logical subject of the sentence, that is, the individual about which the predicate *lelépett az úttestre* ‘stepped down on the drive-way’ is asserted. The proper noun *Mari* in (52a) refers to an individual familiar to the discourse participants, whereas in (52b) *egy gyerek* ‘a child’ can be taken as the member of a specific set of children or as a completely unknown child.

Note, furthermore, that the constituent appearing in the specifier of LsubjP can denote a referent playing the pragmatic role of topic, but this need not be the case. The pragmatic status of this referent depends basically on the referential properties of the expression it denotes and the context of utterance. In (52a), for instance, the logical subject *Mari* is at the same time topic if *Mari* is discourse-linked, but it cannot be taken as topic in a context where (52a) is uttered just about a given situation. As for (52b), under the specific reading *egy gyerek* ‘a child’ is topic under similar conditions as *Mari* in (52a), whereas under the non-specific reading *egy gyerek* does not fulfill the pragmatic requirements of topicality hence it cannot function as topic in any context.

5.2 Logical subject and theme

The notion of logical subject can be related to other concepts such as “theme”. Though the former shares certain properties of the latter, they must be carefully distinguished from each other because their conflation not only prevents a correct understanding of Hungarian sentence structure, but also deprives linguistic theory of the sort of typology we will develop further below.

First of all, one should not confuse the term “logical subject” with “theme” as opposed to “rheme” in the sense of Halliday (1967).²⁶ In Halliday’s approach, the

²⁶For similar accounts of the distinction theme-rheme, see also Östman and Virtanen (1999), and Halliday and Matthiessen (2004). For a criticism of Halliday’s account, see Leong (2004).

theme is the very first element of the sentence and functions as a point of departure for the message. For Halliday, the theme “may be an item which is recoverable from the preceding discourse, but is not necessarily so; the selection is independent of the context” (Halliday 1967: 242).

The concept of logical subject used in this paper, thus, resembles Halliday’s theme, since both have a relatively fixed position in the sentence. Both appear at the left edge of the sentence, but whereas the logical subject can be preceded by other elements (by sentence adverbials, for instance), the theme is by definition sentence-initial and can be realized in English by any kind of nominals and pronominals (including focused expressions and *wh*-words), adverbials or even by a finite verb. A corollary of this property is that every sentence has a theme—contrary to the logical subject, which is semantically more restricted and appears only in sentences expressing primary predication.²⁷ The logical subject may in fact be taken as a subtype of the concept of theme: it is a referential element in the sense that it contributes an individual to the discourse and makes it suitable for subsequent predication.

5.3 Logical subject and topic

The other notion that overlaps, at least partially, with that of logical subject is topic. One might say that topic is a subtype of logical subject; in other words, a topic expression always functions as the logical subject of the sentence, whereas there are sentences that have a logical subject but lack a topic. (53) is a sentence with a logical subject that is at the same time topic, and (54) a sentence in which the logical subject is not topic.

- (53) A gyerekeim nagyon szeretik a palacsintát.
 the children-my-nom very like the pancake-acc
 ‘My children love pancakes.’
- (54) Valaki kiabál odakint.
 somebody-nom screams outside
 ‘Somebody is screaming outside.’

(53) contains an individual-level predicate, therefore only the categorical reading is available for this sentence.²⁸ The constituent *a gyerekeim* ‘my children’ in sentence-initial position is topic and at the same time logical subject. (54) has a stage-level predicate and a non-specific individual in the same sentence-initial position as *a gyerekeim* in (53). This latter cannot be topic, hence the sentence necessarily expresses athetic statement.²⁹ However, the information contained both in (53) and (54) can be organized in such a way that the grammatical subject occupies a postverbal position:

²⁷For the definition of a primary predication, see fn. 3.

²⁸Ladusaw (1994) considersthetic sentences as descriptions of eventualities. Individual level predicates, i.e., predicates expressing a permanent property, do not describe eventualities; consequently, they can only appear in categorical sentences and their subject is necessarily interpreted as the topic of the sentence. Since we are not concerned here with the details of the distinctions between individual level and stage level predicates, we will not develop this point any further.

²⁹Thetic sentences will be analyzed in more detail in Sect. 5.4.

- (55) a. Nagyon szeretik a gyerekeim a palacsintát.
 very like the children-my the pancake-acc
 ‘My children love pancakes.’
- b. Nagyon szeretik a palacsintát a gyerekeim.
 very like the pancake-acc the children-my-nom
 ‘My children love pancakes.’
- (56) a. Kiabál odakint valaki.
 s creams outside somebody-nom
 ‘Somebody is screaming outside.’
- b. Kiabál valaki odakint.
 screams somebody-nom outside
 ‘Somebody is screaming outside.’

In (55a–b) and (56a–b), no constituent occurs in the position of the logical subject. Recall that so far we have been discussing examples only where the topic, too, occupies the specifier position of LsubjP. Should we, then, assume that the sentences in (55) and (56) are topicless, that is, that they expressthetic statements? For (56a–b) the answer is in the affirmative, since the sentences contain a stage-level predicate and a non-specific indefinite subject. However, we cannot claim the same for (55a–b), since the individual-level predicate *szeret* ‘like’ enforces the categorical reading. We must assume, then, that there *is* a topic in sentences like (55a–b), even if it does not fill the (sentence-initial) logical subject position. In fact, this is not an unusual situation: a topic cannot only appear in the syntactic position normally reserved for topic constituents, but it can remain in situ or—at least in some languages, such as Romance—it can appear at the right periphery of the sentence, in a dislocated position. It has been pointed out that the syntactic coding of topic is optional even in topic prominent languages (Gundel 1988). For instance, the experiments of Fuller and Gundel (1987) have shown that in Japanese the topic-marker *wa* appears on a constituent in the case of topic-shift or the contrastive interpretation of the topic.

The syntactic coding of a topic constituent and the position it occupies is usually explained by means of general information-processing principles. According to Givón (1988), the more “new” or “informative” a topic is, the more likely it is that it will appear at the left periphery and inversely, strictly given topics tend to remain in situ or they appear in a right dislocated position. For example, a pronominal topic necessarily has an active referent, therefore it need not be placed at the beginning of the sentence in order to function as topic. In the answer of the following dialogue the referent of the pronominal *benne* ‘in him’ is at the center of the actual attention, and only a contrastive reading would motivate its moving to SpecTopP:

- (57) Q: Mit gondolsz Péterről?
 ‘What do you think about Peter?’
- A1: Maximálisan megbízom benne.
 maximally trust-I he-in
 ‘I trust him maximally.’
- A2: Benne maximálisan megbízom.
 he-in maximally trust-I
 ‘Him I maximally trust.’

Returning back to (55a) and (55b), note that either of them would be appropriate in a context where the sentence asserts something about the referent of *a gyerekeim* ‘my children’, or the referent of *a palacsintát* ‘the pancake-acc’ or both. These expressions can be interpreted as topics in any of their postverbal positions. The word order in the postverbal field of Hungarian is in fact claimed to be completely free;³⁰ referential expressions and quantifiers can theoretically appear in any order after the verb, and there is no specific position reserved for topics in the right periphery. The topic—or topics, depending on the context—in (55a) and (55b) occupies a postverbal position and it is therefore integrated into the Predicate Phrase. The crucial difference between (53) and (55a–b) then is not that the former has a topic constituent whereas the latter do not, but that the former has a predicative structure, consisting of a logical subject (which is at the same time topic) and a predicate, while the latter have no logical subject (although they do have a topic), and the sentences are composed of a mere Predicate Phrase.

These examples show convincingly that the concepts of topic and logical subject, though they are two distinct categories, may overlap in certain circumstances. Logical subject and logical predicate are complementary notions on the logical as well as on the syntactic level. By means of a primary predication structure the speaker first names a referent and then predicates something about it. If this referent is identified and active, or at least (situationally or contextually) accessible, it functions as a foregrounded topic. The promotion of the topic in a syntactically prominent position reflects a special discourse strategy of the speaker (usually a topic change), but the topic can also remain in a VP-internal position.

5.4 Logical subject inthetic sentences

Thetic sentences are topicless, but do they also lack a logical subject? Let us now consider sentences (54) and (56a–b) again, repeated here as (58) and (59a–b):

- (58) Valaki kiabál odakint.
 somebody-nom screams outside
 ‘Somebody is screaming outside.’
- (59) a. Kiabál odakint valaki.
 screams outside somebody-nom
 ‘Somebody is screaming outside.’
- b. Kiabál valaki odakint.
 screams somebody-nom outside
 ‘Somebody is screaming outside.’

As we have already seen, each of these sentences is topicless, i.e., expresses athetic statement. They are truth-conditionally equivalent and any of them can be used

³⁰In earlier work, É. Kiss assumed that the postverbal field has a flat structure (see, for instance, É. Kiss 1987, 1994, 2000, 2002) whereas Szabolcsi (1997), Szabolcsi and Brody (2003), and É. Kiss (2006) assign a hierarchical structure to each domain of the Hungarian sentence. For Szabolcsi and Brody (2003), the free word order in the postverbal field is assured by a sequential ordering of functional projections. According to É. Kiss (2006), the hierarchical structure of the postverbal domain becomes “flattened” in the phonological component and the constituents are reordered according to their phonological weight.

as a coherent answer to a question such as “What is this noise?”. The only difference between them is that (60) has a predicative structure, whereas in (59a) and (59b), the argument of the verb is integrated into the predicate.³¹ The predicative structure of (58) indicates that the assertion is expressed on the logical level in two consecutive steps: the speaker begins by introducing a referent in order to assign it a property. The isolation of the logical subject from the rest of the sentence corresponds to a double cognitive act analogous to what happens in a categorical statement as described by Brentano and Marty. We explain these variations by claiming that each of the sentences in (58)–(59) are *thetic on the pragmatic level* but whereas (59a) and (59b) are *thetic on the logical level* as well (that is, (59a) and (59b) are topicless and they do not have any logical subject either), (58) is *categorical on the logical level, since it contains a logical subject*. Our assumption is that Hungarian sentence structure can be accounted for by the original logical dichotomy proposed by Brentano and Marty. However, a constituent that plays the role of logical subject in a predication is not necessarily the topic of the sentence. Even an indefinite expression denoting a brand-new referent can play the role of logical subject in such a predicative structure, given that non-specific indefinites are referential expressions in the sense that they contribute a referent to the discourse.

Referentiality is, in fact, a necessary and sufficient condition for logical subjecthood, whereas a topic must not only be referential but also specific. A logical subject may be a definite, a specific indefinite or a non-specific indefinite expression. In the case of a logical subject that is a non-specific expression, the first step in the construction of the categorical judgment, prior to the predication itself, corresponds to the introduction of a new referent into the discourse; if the logical subject is a specific indefinite, the first step is to introduce a referent that is selected out of an identified set; and a logical subject that is a definite expression reflects the selection of a uniquely identifiable referent in order to predicate something about it.

The most important consequence of this claim is that in Hungarian even a *thetic*—i.e., *topicless*—sentence can have a logical subject. Topic and logical subject are not synonymous notions: a constituent analyzed in Brentano’s and Marty’s original framework as a logical subject is not necessarily at the same time a topic.

We propose, then, to define the *thetic*–*categorical* dichotomy on the semantic and the pragmatic level separately (see Table 2). Defined as a semantic notion, a categorical judgment consists of a logical subject and a logical predicate, whereas a *thetic* judgment does not have any logical subject. On the pragmatic level, a categorical judgment is a statement consisting of a topic and a comment, and a *thetic* judgment is defined as a *topicless* statement.

³¹The non-specific indefinite argument functioning as the (logical) subject of a predication or integrated into the predicate is not necessarily the grammatical subject. In the following examples, the non-specific argument bears accusative case and functions as the internal argument of a transitive verb:

- (i) Valakit vernek odakint.
somebody-acc beat-3Pl outside
‘Somebody is being beaten outside.’
- (ii) Vernek valakit odakint.
beat-3Pl somebody-acc outside
‘Somebody is being beaten outside.’

As we will show in the next section, there are languages in which logical subject and sentence-initial topic overlap systematically, whereas in other languages, such as Hungarian, for instance, the sentence-initial logical subject position can be filled by a logical subject that is not topic.

6 Typological considerations

Throughout the paper, we have focused almost exclusively on two articulations of the sentence: the logical articulation of a sentence into logical subject and logical predicate, and the pragmatic articulation in terms of topic and comment. There is, however, a third articulation, namely the grammatical articulation based on the grammatical subject and the grammatical predicate. On the grammatical level, some further grammatical relations may be defined such as “direct object of”, “indirect object of”, etc. This means that the articulation of a sentence can be analyzed on three different levels (see Table 3).

Given the postulation of the three interacting levels, it is possible, and, as will be apparent immediately, even illuminating to explore to what extent these three articulations determine sentence structure, in particular, word order regularities in various languages. In what follows, we compare English, standard and non-standard French, and Polish, with respect to the type of articulation that determines word order. By means of this typology, we show that the distinction proposed by É. Kiss (1994) on the basis of Li and Thompson (1976), between subject-prominent and topic-prominent languages, should be replaced by a tripartite distinction that distinguishes between grammatical subject-prominent, logical subject-prominent and topic-prominent languages. While all three of these distinctions are acknowledged in descriptively adequate theories, they are predicted to interact in theories where each of these three types of information possesses its own level of representation. Thus, our proposal and the typology that we define below are compatible with so-called *correspondence theories of grammar* such as LFG (Bresnan 2001), HPSG (Engdahl and Vallduví 1996; de Kuthy 2002), and constructional proposals (Culicover and Jackendoff 2005).

Table 2 Categorical and thetic judgments

Judgment type	Defined as a semantic notion	Defined as a pragmatic notion
Categorical	logical subject–logical predicate	topic–comment
Thetic	logical subjectless	topicless

Table 3 Three levels of sentence articulation

Syntactic level	Semantic level	Pragmatic level
grammatical subject– grammatical predicate	logical subject– logical predicate	topic– comment

6.1 English and standard (written) French

The basic word order in English and in the formal version of French, called standard or written French, is determined by the grammatical articulation, which is to say, that the first constituent of a neutral sentence is the grammatical subject, and the second one is the grammatical predicate. Since case-marking is extremely poor in French and similar languages, the opposition between grammatical subject (bearing nominative case) and grammatical object (bearing accusative case) can only be based on the distributional properties of the arguments of the verb. In (60) and its French equivalent (61), the semantic difference between the sentences (a) and (b) is due to the difference between their word order, which determines the grammatical function of the NPs *the dog/le chien* and *the cat/le chat*, respectively:

- (60) a. The dog chases the cat.
 b. The cat chases the dog.
- (61) a. Le chien poursuit le chat.
 b. Le chat poursuit le chien.

In addition, in unmarked cases at least, in standard English, the preverbal field can only be occupied by the grammatical subject; and the same is true of the lexical (i.e., non-pronominal) arguments in standard French:

- (62) *The dog the cat chases.
 (63) *Le chien le chat poursuit.

Since, in principle, any kind of NP can be the grammatical subject (there is no general semantic constraint limiting its choice), in English and in formal French, the preverbal part of the sentence can be occupied by constituents that are neither the logical subject nor the topic of the sentence. This is true, for example, for sentences with an expletive subject (64a–b), but also for sentences with a negative subject (65a–b).

- (64) a. It is raining.
 b. Il pleut.
- (65) a. Nobody has come.
 b. Personne n'est venu.

As (64)–(65) show, in English and in formal French (and similar languages), the preverbal position of the grammatical subject must always be filled by a phonetically articulated element in a matrix declarative clause, quite independently of the logical or pragmatic structure of the sentence.

6.2 Non-standard (colloquial) French

The case of non-standard or colloquial French provides the strongest argument in favor of the necessity to distinguish between the logical and pragmatic articulation. Word order in colloquial French is basically determined by pragmatic structure.

Non-standard French tends to avoid 'canonical' (i.e., SVO) sentences with a lexical subject, and prefers sentences with topicalized constituents and/or with pronominal subjects (Cadiot 1988; Lambrecht 1994; de Cat 2002). In other words, the standard French sentence (66a) is replaced by (66b) or (66c) in non-standard French.

More precisely, as de Cat (2005) points out, canonical sentences with a lexical subject like (66a) are only used in order to express athetic judgment in non-standard French.

- (66) a. Ma soeur est très malade.
 ‘My sister is very ill.’
 b. Ma soeur, elle est très malade.
 ‘My sister, she is very ill.’
 c. J’ai ma soeur qui est très malade.
 ‘I have my sister who is very ill.’

The sentences (66b–c) and (66a) are truth-functionally equivalent. The choice between (66b) and (66c) is determined by contextual factors. The sentence (66b) can be an answer to the question (67a), whereas sentences (66a) and (66c) can provide correct answers to the question (67b):

- (67) a. Comment va ta soeur?
 ‘How is your sister?’
 b. Quel est le problème?
 ‘What’s the matter?’

Of course, the subject is not the only constituent that can be topicalized in non-standard French.

Consider now the sentences (68a) and (68b):

- (68) a. On a volé la voiture de Pierre.
 one stole the car of Peter
 ‘Peter’s car has been stolen.’
 b. Pierre, on lui a volé sa voiture.
 Peter one he-dat stole his car

The two sentences (68a) and (68b) are truth-functionally equivalent but are used in different context-types. (68a) is a thetic sentence, containing new information only, whereas (68b) is a dislocated structure conveying some new information about a referent (specifically, Peter) already established in the previous discourse.

At the same time, topicalization is semantically constrained in non-standard French: only definite or generic NPs can be topicalized:³²

³²Note that under certain circumstances even indefinites can be topicalized in non-standard French.

- (i) Du vin, j’en ai du bon.
 indef.art. wine I of-them have indef.art good
 ‘As for wine, I have some good wine.’

In such sentences, the indefinite NP in topic position is interpreted as the name of a property, comparable in this respect to a bare common noun playing the role of a contrastive topic in Hungarian. For common nouns in topic position in Hungarian, see É. Kiss (2000), and for topicalized indefinites in French, Hulk (1996) and Gécseg (2007).

- (69) a. Ce roman, je l'ai lu avec plaisir.
 this novel I it read with pleasure
 'This novel I liked very much.'
- b. *Un de ces romans, je l'ai lu avec plaisir.
 one of these novels I it read with pleasure
- (70) a. *Beaucoup de/*Plusieurs/*Deux/*Quelques romans, je les
 a lot of/several/two/some novels I them
 ai lus avec plaisir.
 read with pleasure
- b. Ces romans, j'en ai lu beaucoup/plusieurs/deux/quelques uns.
 these novels I read many/several/two/some of them
 'As for these novels, I read many/several/two/some of them.'
- (71) a. *Tous les romans, je les ai lus avec plaisir.
 all novels I them read with pleasure
- b. Ces romans, je les ai tous lus.
 'As for these novels I read all of them.'
- (72) Un homme, ça travaille pour nourrir sa famille.
 a man it works for feed his family
 'A man works to feed his family.'

These particularities of word order in colloquial French lead us to the following generalizations. There is a sentence-initial position, namely a left-dislocated position in non-standard French that can be identified as the specifier of a (recursive) TopP projection. This is also motivated by the fact that the constituent hosted by this position always denotes the topic of the sentence. The number of constituents appearing in this sentence-initial position is not constrained and the dislocated constituents can bind any argument of the verb. The referent of a dislocated constituent must meet the referential and pragmatic requirements of topicality: contrary to Hungarian, only definite or generic expressions can appear in this position (that is, their referent must be familiar to the speech participants) and dislocated constituents must always be discourse-linked (their referent must be active or accessible). A sentence containing a dislocated element in colloquial French expresses a categorical judgment both on the pragmatic level and the semantic level, since a dislocated element is always topic and logical subject at the same time. Furthermore, left dislocation seems to be a basic syntactic tool of foregrounding the topic(s) of the sentence: a non-pronominal expression is systematically promoted to the sentence-initial position if its referent plays the role of a foregrounded topic.³³ A sentence containing left dislocation is a basic primary predicative structure in this language, where the predicative relation is realized between the topic and the comment of the sentence, therefore colloquial French is a genuine topic-prominent language.

³³A sentence-initial personal pronoun is assumed to always play the role of topic and therefore it does not need to be dislocated in order to function as a topic. This is so because such pronouns denote the participants of the discourse, hence their referent is always identified and active. As for third person pronouns, it is their anaphoric character that ensures their identifiability and activatedness.

6.3 Polish

It would seem that Polish—and possibly other Slavic languages as well—behave like Hungarian with respect to the properties relevant in the present context, i.e., the properties that support the claim that Polish syntactic structure, too, is organized according to the articulation logical subject–logical predicate. It is well known that Slavic languages have very flexible word order, which may suggest discourse configurationality. However, as we shall see, they are not subject-prominent in the sense that in a neutral sentence the preverbal position can be filled not only by the grammatical subject of the sentence, but by any other argument of the verb. One cannot claim, however, that the speaker places that argument at the beginning of the sentence in order to represent the referent of this constituent as the topic of the sentence.

The following examples show that the preverbal constituent can be interpreted as a topic only under certain circumstances. For example, in a context where neither the speaker’s daughter nor the hearer’s dog have been mentioned in the previous discourse, a question such as “What happened?” can be answered by either (73a) or (73b), exactly like in Hungarian (cf. (49a) and (49b) in Sect. 4.3). In a context of this type, both are *thetic*, hence *topicless*.

- (73) a. Wasz pies ugryśł moją córką.
 your-nom dog-nom bit my-acc daughter-acc
 ‘Your dog has bitten my daughter.’
 b. Moją córką ugryśł wasz pies.
 my-acc daughter-acc bit your-nom dog-nom
 ‘My daughter has been bitten by your dog.’

The two sentences can only be distinguished on the semantic level: *wasz pies* ‘your dog’ is the logical subject in (81a) and *moją córką* ‘my daughter’ in (73b). However, (73a) can also be an answer to the question ‘What did my dog do?’ and (73b) an answer to the question ‘What happened to your daughter?’, in that case ‘your dog’ is the topic of (73a) and ‘my daughter’ the topic of (73b).

(Non-specific) indefinites, too, can occur optionally in sentence-initial position. Both (74a) and (74b) are *topicless*, and hence can be answers to the question ‘What happened?’. The only difference between them is that the former has a logical subject–logical predicate articulation whereas the latter consists of a mere Predicate Phrase.

- (74) a. Kobieta zemdłała.
 woman-nom fainted
 ‘A woman fainted’
 b. Zemdłała kobieta.
 fainted woman-nom
 ‘A woman fainted’

Non-specific indefinite arguments can occur in a sentence-initial position even if the sentence contains a definite argument, and even if the latter is the grammatical subject:

- (75) a. Czymś bardzo ucieszyła się Maria.
 something-dat very rejoice refl Mary-nom
 ‘Something delights Mary very much.’
- b. Maria czymś bardzo ucieszyła się.
 Mary-nom something-dat very rejoice refl
 ‘Something delights Mary very much.’
- c. Bardzo ucieszyła się Maria czymś.
 very rejoice refl Mary-nom something-dat
 ‘Something delights Mary very much.’

The sentence (75a) is analogous to the Hungarian sentence (33) discussed in Sect. 4.2. Actually, each of the word order variants exhibited by the three sentences above is possible in the Hungarian counterparts as well. In (75a) the sentence-initial *czymś* ‘something’ is a non-specific indefinite expression and hence must be interpreted as a logical subject that is not topic. (75b) contains two logical subjects (*Maria* and *czymś*) but only the former can be topic in an appropriate context. (75c) begins with a verb modified by an adverbial and has a structure that corresponds to a mere Predicate Phrase.

As the examples above show, athetic statement can be realized in Polish by two alternative word orders: one with a definite or indefinite preverbal argument and another with the verb in sentence-initial position. Event reporting (thetic) sentences with an intransitive construction exhibit often the same verb-initial word order as in Hungarian:

- (76) a. Przyjechał pociąg.
 arrived train
 ‘The train arrived.’
- b. Wczoraj spadł pierwszy śnieg.
 yesterday fell first snow
 ‘The first snow fell yesterday.’

(76a) can never be an answer to a question about the train, nor can (76b) be an answer to a question about snow. Both sentences are predications about a situation and not lack a topic, but do not have any logical subject either.

Similarly to Hungarian, an adequate account of the Polish data seems to require a two-level approach to information structure. English and standard French sentence structure is based on the grammatical articulation, Hungarian is a language whose syntactic structure is determined on the logico-semantic level (the same may be true for Slavic languages), and the sentence structure of colloquial French must be accounted for on the pragmatic level. In sum, then, we have arrived at the following typology (see Table 4).

7 Conclusion

In this paper, we argued in favor of the assumption that Hungarian sentence structure is determined by the logical rather than the pragmatic articulation. The idea underlying this assumption is that the interpretation of a sentence can be analyzed on two

Table 4 Word order typology

Language:	Word order is determined by:
English, standard French	Grammatical subject–grammatical predicate
Hungarian, Polish	Logical subject–logical predicate
Colloquial French	Topic–comment

levels: on a semantico-logical, and on a pragmatic level. The two-level approach has the following consequences for the analysis of Hungarian sentences:

- (i) The notions ofthetic vs. categorical judgment—at least the way they have been defined for the last three decades—belong to the pragmatic level. Taken in this pragmatic sense,thetic judgments are not articulated into topic and comment though they may have a logical subject-logical predicate structure. Moreover,thetic judgments describing the same situation may be distinguished by different logical subject-logical predicate structures.
- (ii) In Hungarian, ambiguity may arise on the syntactic level since a specific and a non-specific indefinite may have the same morphological realization, and may occupy one and the same position in the preverbal field, namely that of the logical subject.
- (iii) The topic status—but not the logical subject status—of a sentence-initial constituent can be marked on the prosodic level as well: the topic is generally unstressed, whereas the logical subject is either unstressed or it bears one of the main stresses of the sentence.
- (iv) Both logical subject and topic are defined in terms of aboutness. On the other hand, topics have the additional property of being always given, and logical subjects have the additional property of bearing a predicative relation to the predicate of the sentence. It follows that logical subject and topic are rather independent from each other: a logical subject is not necessarily topic at the same time, and inversely, an NP that is topic need not be a logical subject, since the former can be integrated into the Predicate Phrase, whereas a logical subject must be syntactically prominent and must be in a complementary relationship with a logical predicate.

The arguments we have advanced in favor of our approach were essentially based on the syntactic properties and on the contextual behavior of the sentences discussed. We have argued that—contrary to what has generally been assumed—Hungarian sentence structure cannot be based on topic-comment articulation, because it is largely determined by the logical articulation into logical subject and logical predicate. Furthermore, we have shown that the distinction between topic-comment articulation and logical subject–logical predicate articulation has important typological consequences as well.

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