1. Introduction

There are syntactic structures that we, as speakers, have no problem to understand (we are able to give their paraphrase easily), but that we, as linguists, cannot straightforwardly explain through common methods of semantic composition. These constructions remain among the constant challenges for linguistic theorizing. In this paper, we are more specifically interested only in those constructions where the meaning (which so far resists an explanatory account) cannot be a result of pragmatic interpretation. This fact can be verified in various ways by many (to a large extent) reliable tests which reveal properties of linguistic expressions such as variability, cancellability, etc.

In the paper we examine a special construction of Czech, which is depicted in (1a,b). The construction is formed by a concatenation of a copula být ‘be’ with an infinitive of a perception verb vidět ‘see’, slyšet ‘hear’ and čtit ‘smell’ (and perhaps poznat ‘recognize’). The construction receives a modal interpretation indicated through the translation of (1a,b). Furthermore, the infinitive is able to license only its internal argument Θ-role. However, the argument can be licensed by either nominative (1a) or accusative (1b) case.

(1a) Sněžka
    Snow MountainNOM is seeINF
    je vidět
    It is possible to see Snow Mountain

b. Je
    seeINF
    vidět
    Snow MountainACC
    Sněžku
    ‘It is possible to see Snow Mountain’

In this paper, we thus focus on these two aspects of the construction: the nominative/accusative alternation and how does the modal interpretation of this construction arise. We show that answer to the latter question is no easy matter. The question thus may be considered a part of a more general problem, which we also address in Karlík & Caha (2005), namely the problem of modal constructions without a separate word-like modal operator.
In that paper, we give an analysis of a type of Czech adjectives (roughly analogous to -able adjectives in English). These adjectives express a similar modal meaning as the construction we investigate here through their internal makeup. They, furthermore, occur in similar syntactic environment, their logical object becoming a surface subject:

\[
\begin{align*}
\text{Sněžka} & \quad \text{je viditelná} & \quad i & \quad \text{za} & \quad \text{mlhy} \\
\text{Snow Mountain} & \quad \text{is visible} & \quad \text{even} & \quad \text{during} & \quad \text{fog} \\
\text{Sněžka} & \quad \text{je vidět} & \quad i & \quad \text{za} & \quad \text{mlhy} \\
\text{Snow mountain} & \quad \text{is see} & \quad \text{even} & \quad \text{during} & \quad \text{fog}
\end{align*}
\]

'Snow Mountain can be seen even when it is foggy.'

As far as we are aware, many Czech authors attempted to analyze the constructions (1a,b). Their analyzes are, however, couched within a descriptivist tradition of a classical grammars and they serve for our purpose only as a data source (see e.g. Svoboda 1962). These studies do not contribute much to the topic that goes further than native-speaker intuitions. According to our conviction, transformational generative grammar allows deeper insight into the structure of these sentences by the sole fact that it forces us to ask questions on topics that could be hardly formulated, let alone explained, in the framework mentioned.

With respect to the first question - the nominative and accusative alternation - we propose an analysis according to which the infinitive undergoes restructuring. We understand the notion of restructuring, essentially following Wurmbrand (2001), as the infinitive’s inability to fulfill certain grammatical functions verbs usually fulfill. The inability arises as a result of impoverished functional structure of the infinitive. The construction at hand, however, differs from other restructuring phenomena in one rather important respect: whereas restructuring is prototypically triggered by the matrix verb, in this particular construction it is rather triggered by and tight to peculiar properties of the embedded verb itself.

The second question is only touched upon. We argue that the syntactic structure probably does not contain any covert element that would be the source of its modal interpretation nor is there any overt element (or their combination) that would induce modal reading. Given this situation, we propose that the modality may come from the embedded verb itself.

2. Description of the construction

The construction in (1) has rather puzzling properties: there is a copula combined with an infinitive, whose thematic object rises to subject position of the copula and receives nominative case. This is very similar to passive sentences. In passive, however, the infinite verb has the form of a passive participle and not that of an infinitive. The construction in (1) also behaves unlike passive in crucial respects, because the infinitive can (optionally at a surface level data) assign accusative case to its object giving rise to the observed paradigm.

A similar effect (object of infinitive rising to the subject position of matrix verb and nominative/accusative alternations) can be observed with the so called restructuring verbs (see (4a, b) below and also Dotlačil 2004 for a general discussion). We postpone the discussion of these constructions for the moment as we discuss them further below.
Furthermore, it is the case with absolute majority of verbs that the combination of copula and infinitive behaves completely differently than the verb *vidět* ‘see’ combined with the copula does. This can be observed in (2). In (2a), the nominative NP can only be interpreted as an external argument of the infinitive and never as an internal argument. We further show in (2b) that the difference in interpretation is not caused by animacy of the subject. In (2b), there is an animate proper name in nominative case, whose interpretation can only be that of a thematic object and never of a subject (i.e. external argument):

(2a) V supermarketu je ted’ nakupovat Petr
    ‘It is Peter, who is now shopping in the supermarket’

b. V Krkonoších je ted’ vidět Yetti
    ‘It is Yetti, who can now be seen in Giant Mountains’

This comes as a surprise, because the constructions (1a and 2a) seem to be rather identical in their lexical and morphological makeup (leaving the modal meaning aside for the moment). The constructions, however, are not exactly the same. They differ in several respects:

i) the *vidět* infinitive does not license an external argument
ii) the *vidět* infinitive cannot bear aspecual afixes
iii) the *vidět* infinitive does not assign accusative (in certain contexts)
iv) no infinitive can bear sentential negation when combined with the copula

As for the property (i), it can be demonstrated by the verb’s inability to license anaphors. Anaphor licensing in general is not dependent on a presence of an overt subject, thus anaphors can be licensed e.g. by adjectives, nouns and infinitives with no apparent overt material in their subject position. For the anaphor to be licensed, however, there must be an underlying logical subject, which can be phonetically unrealized in syntax. Thus, if it is not possible to use an anaphor in object position of a certain expression, the expression cannot have an underlying logical subject. (3d) thus shows that such an underlying subject is not licensed by the infinitive of the verb *vidět* ‘see’. This property also accounts for why the object (in 1b) can become a subject, as there is no hierarchically higher candidate to agree with T0:

(3a) Viděl myjícího se člověka
    ‘He saw a man washing himself’

b. Nesnášel mytí se
    ‘He hated washing himself’

c. Mýt se je nutné
    ‘It is necessary to wash oneself’
d. *Je *se vidět

\text{Intended: ‘It is possible to see oneself’}

As we have seen that the verb \textit{vidět} ‘see’ is able to assign accusative case to its complement in these structures, this property thus requires some remarks with respect to the status of Burzio’s generalization within our theory. While we do accept it as a one way implication (briefly: no accusative no external theta-role), we do not agree with it as a two way implication. Consequently, we adopt a structure of the verb’s extended projection as proposed in e.g. Lasnik (1999) and Pesetsky & Torrego (2001, 2004) with separate accusative assigning head located between VP and v*P.

With respect to the property (i), the construction can also be compared to restructuring phenomena. The name restructuring is used to depict constructions where the embedded infinitive fails to display certain expected locality (clitic-climbing) or grammatical (case-assignment) properties that full-fledged infinitives usually have. Restructuring constructions are interesting for our investigations, because they display the property which is also attested in our construction: the nominative/accusative alternation. Restructuring is, however, canonically triggered by the matrix verb rather than by the infinitive. In the following paragraphs, we are thus going to show how the phenomenon we investigate goes together with other parts of the grammar and this in turn reinforces our conclusion that the external argument is not present in the \textit{je vidět} construction.

We illustrate restructuring in Czech in the sentence (4b). In that sentence, the underlying object of the infinitive enters into Agree with the T\textsuperscript{0} of the matrix verb and is assigned nominative. This seems to be optional at surface-level data: (4a) shows that the Agree operation between the matrix T\textsuperscript{0} and the NP in question is by no means necessary.

(4a) že mu nešlo na startu zařadit dvojku

\text{that himDAT not-was-possible\textsubscript{DFLT} on start engage second-gear\textsubscript{ACC}}

‘that he was not able to engage the second gear at the start’

b. že mu nešla na startu zařadit dvojka

\text{that him\textsubscript{DAT} not-was-possible\textsubscript{3SGFEM} on start engage second-gear\textsubscript{NOM}}

‘that he was not able to engage the second gear at the start’ (Dotlačil 2004:20)

In these sentences, the accusative can be expected. We assume (following Wurmbrand 2001) that the possibility of nominative case-assignment into the complement of an infinitive is to be captured through impoverishment of the functional structure of the infinitive. The constructions in (4a,b) thus differ in how much functional structure the infinitive has, which of course presupposes the possibility that these two different structures can be both spelled-out as infinitive. Following this line of reasoning, matrix verbs which allow for both restructuring and non-restructuring can subcategorize for two different functional projections, which gives rise to the nominative/accusative (restructuring/non-restructuring) alternations. These facts can thus be captured through a c-selection
(feature) of the matrix verb. This line of reasoning cannot be, however, straightforwardly extended to the construction we investigate, as the reconstruction does not seem to be triggered by the matrix verb (unless one postulates a different verb byt ‘be possible’ which is not a step we want to take).

The accusative nominative shifts, however, are most probably not limited to arguments and the issue seems quite general. This is expected under a theory of structural case proposed e.g. in Chomsky (2001). In his system, locality relations between probes and goals determine the value of case. If no accusative-assigning head is present in the derivation, NPs not c-commanded by another NP receive nominative. Thus in (5a), an adjunct also appears to be assigned nominative in a sentence where it can (marginally) occur in accusative case:

(5a) Propršel nám celý víkend
    rained we\textsubscript{DAT} whole weekend\textsubscript{NOM}
    ‘It rained the whole weekend’

b. Propršelo nám celý víkend
    rained we\textsubscript{DAT} whole weekend\textsubscript{ACC}
    ‘It rained the whole weekend’

The issues with adjuncts are not perfectly clear to us at the moment, but Dotlačil (2004) shows in detail that the conjecture (6) holds for all restructuring phenomena in Czech (and, presumably, in all languages):

(6) No nominative assignment across closer argument.

The conjecture is a natural consequence of almost any theory which implements Rizzi’s (1990) relativized minimality account of syntactic relations, reducing them in a general way to „closest c-command“ (see also Rezac 2004 in this respect). The account, however, crucially relies on one thing, namely that no NP (overt or covert) intervenes between the nominative probe and the goal NP. In our case, this reduces to the requirement that the external argument be not present, which we independently argued to be the case.

The property in (ii) can be straightforwardly demonstrated by example (7a). This property contrasts with other verbs embedded under the copula as they can freely occur with aspectual afixes:

(7a) Sněžka byla včera (*u)vidět
    Snow Mountain\textsubscript{NOM} was yesterday (PERF)see\textsubscript{INF}
    ‘It was possible to see Snow Mountain Yesterday.’

b. Petr byl včera (za)platit nájem
    Peter\textsubscript{NOM} was yesterday (PERF)pay\textsubscript{INF} rent
    ‘Peter payed/was paying a rent yesterday’

The property (iii) seems to be rather straightforward, but it is less so if we try to demonstrate it in detail. The intuition we pursue is that in cases like (1a) the underlying object is assigned nominative and no accusative can be assigned. It may, however, be objected that the absence of the ability to assign accusative cannot be demonstrated in this way as there is no argument that the accusative could
be assigned to in the first place. On the other hand, we think that the sole reason why Sněžka ‘Snow Mountain’ in the example (1a) gets its nominative case is that it cannot be assigned accusative by the infinitive. The assumptions we have made about the inability of the infinitive to assign accusative and to license an external theta-role make the existence of sentences like (1a) natural. The internal argument cannot receive accusative case due to the verb’s deficiency and thus rises to nominative. This is, however, possible only because there is no external argument to be assigned nominative via agreement with the finite T.

**Property (iv)** is shared by all infinitives embedded under the copula. The inability to bear sentential negation is again a sign of the impoverishment of the functional makeup of the infinitive:

(8a) Sněžka (ne)byla včera (*ne)vidět
Snow MountainNOM NEG-was yesterday NEG-seeINF
‘It was not possible to see Snow Mountain yesterday’

b. Petr (ne)byl včera (*ne)kupovat pivo
PeterNOM NEG-was yesterday NEG-shopINF beer
‘Peter wasn’t shopping beer yesterday’

3. An analysis

We thus propose that the following syntactic structure (9a) captures well the properties that the construction (2a) has. This impoverished structure can be compared to the complete projection of transitive verb (9b):

The only puzzling thing is that what universally gives rise to restructuring is almost unexceptionally the matrix verb. The matrix verb in this case is the copula byt ‘be’. Because the copula behaves in the same way as in more regular sentences, we do not think that the copula triggers restructuring of its complement. We leave the problem for further investigation.
In this section we compare the construction at hand with construction in other languages that might resemble it at first sight. The reason why we undertake this path is the following. This construction is rather a peripheral phenomenon in a language which did not receive too much theoretical attention in the framework we pursue. However, if it turns out that the construction can be successfully identified with similar construction in a different language that has been studied more extensively, than we could simply transfer an already existing solution – whatever that might be – to the construction we investigate. In the first place, we compare the construction at hand with the Russian dative-infinitive construction, which also bears modal meaning and which has been studied in detail in recent literature (e.g. Schoorlemmer 1994, Komaar 1999, Moore & Perlmutter 2000, Sigurdsson 2001). However, we show that these constructions differ in crucial respects and that whatever accounts for the modality in the Russian construction, cannot be simply transferred to the Czech construction. (This is rather obvious from the fact that the dative-infinitive construction is archaic in contemporary Czech but the dative cannot be used at all in our construction.) Another construction we will investigate is a German construction which also combines copula and infinitive to create modal meaning.

In Slavic languages, there is one construction that may resemble the Czech one both in its modal meaning and in the fact that it involves copula and infinitive. The construction is given in (10).

(10) \textit{Mne ne sdat' ekzamen}
\begin{tabular}{l}
\textsc{idat} \textsc{neg} \textsc{pass exam}_{\text{acc}}
\end{tabular}

It's not (in the cards) for me to pass the exam. (Moore & Perlmutter's (2000) example (24))

There is no consensus concerning the structure of this construction in the literature given special properties Russian copula has (see e.g. Fortuin 2000). Thus Schoorlemmer (1994) and also Sigurdsson (2001) argue that there is a silent copula in the example (10), the argument being based on observation that in past tense copula appears (11):

(11) \textit{Gruzovikam bylo ne proexat'}.  
\begin{tabular}{l}
\textsc{trucks}_{\text{dat}} \textsc{was neg get through}_{\text{inf}}
\end{tabular}

'The trucks couldn't get through.'  (Moore & Perlmutter 2000)

Sigurdsson (2001) suggests that the modal meaning is due to the presence of a silent modal head. The modal head, however, can be detected through an agreement relation between the head and the dative NP that is, as a result of the agreement, assigned dative case. If the comparison with Czech is to make any sense, we do not consider this solution in detail, as the modal meaning in Czech is apparently not dependent on case assignment. That means, however, that we do not say that Sigurdsson's (2001) suggestion cannot be correct, we only do not
see how this solution, if on the right track, would deepen our understanding of the Czech construction we investigate.

Schoorlemmer (1994), however, argues that the modal meaning cannot be supplied by the dative case, as there are examples where a dative case does not induce modal reading. Schoorlemmer subsequently captures parallelism between the structure in (10) and similar structures of the type given in (12) by assuming that modality in sentences of the type (10) is supplied by silent modal adverb.

(12) Borisu nado ujti.
Boris
must leave

This analysis, though more plausible to explain the Czech data than the case hypothesis of Sigurdsson, can not, however, stand closer scrutiny when applied to Czech. For the first thing, the construction is rather isolated phenomenon in Czech (only three verbs can take part in it), whereas it is fully productive in Russian (with the exception of reflexive passive infinitives, whether these do exist or not). It is without a doubt that silent adverbs should behave in the same way as overt adverbs, if the explanation is to make any sense. Thus, the adverbs should be able to combine freely with particular well defined pieces of structure. The fact that only three verbs can combine with a stipulated covert modal adverb in Czech requires suspicion, which does not arise in Russian as the silent adverb behaves on a par with overt adverbs (compare 13 with 12).

Furthermore, if the modal reading of the sentence (1b) is to be caused by a covert equivalent of the adverb in (13a), it is not clear to us how the construction (1a) can be derived at all. (13b) shows clearly the problem: rising across the overt adverb is not possible in Czech, whereas in (1a) it should be allowed if the adverb is covert. This fact points again to the conclusion that explaining the modality by a stipulation of a zero modal adverb raises more questions than it explains.

(1a) Sněžka je vidět
Snow Mountain
is see

(13a) Je možno vidět Sněžku
It is possible to see Snow Mountain

However, there is one more solution in the literature that can possibly account for the modal meaning of (10). Moore & Perlmutter (2000) argue that there is no copula present in the Russian example (11) and they consider the word bylo an adverb. This is in line with their main claim that the dative nominal in (10) is a subject of the infinitive in question. With respect to the modal reading of (10), they argue that it is a construction specific meaning, citing among others the
work of Fillmore, Kay & O'Connor (1988) to provide a framework for their suggestion. However, let us now investigate another construction with which the Czech construction can be compared and postpone the discussion of construction specific meaning until next section.

In German, there is a very similar construction to that found in Czech. The construction is given in (14).

An anonymous reviewer points to the fact that a similar construction exists also in English (e.g. I am to go) and suggests considering a hypothesis that the copula can be a head of a Modal Phrase (ModP). However, the conclusion and arguments we have given above with respect to a silent modal adverb essentially carry over to this suggestion. If there is a ModP headed by the copula, why other infinitives cannot combine with this head?

(14) Die Schneekope ist zu sehen.
Snow Mountain is to see
'It is possible to see The Snow Mountain'.

Among others, Wurmbrand (2001) recognizes this construction as a kind of restructuring phenomena found in many varieties across the world's languages. As mentioned above, Wurmbrand (2001) proposes to treat restructuring as impoverishment of a functional structure of the embedded infinitive. The structure she gives for a construction of the type (14) is almost identical to that we depicted in (9a) (see Wurmbrand 2001:31, her picture (19)). Wurmbrand herself only notes that "[b]e-infinitive constructions express modal meanings (possibility and necessity) and are as such highly context sensitive ..." without being more explicit on the topic how modal reading is retrieved from the construction. However, let us assume that the modal meaning is somehow supplied by the combination of copula and infinitive (as also suggested for Russian by Moore and Perlmutter 2001).

This solution may be correct for German, but, as should be already obvious from our discussion, it cannot be correct for Czech. There is a very straightforward reason to adopt this conclusion, namely the existence of structures of the type (2) given already above. This construction is fully productive in Czech (see e.g. 2a), but no modal reading is possible let alone forced by that construction.

(2a) V supermarketu je ted' nakupovat Petr
In supermarket is now shopINF PeterNOM
'It is Peter, who is now shopping in the supermarket'

That may well be somehow related to the independent difference between Czech and German, namely that it is possible in Czech for the infinitive to assign accusative when embedded under the copula whereas this is impossible in German (Wurmbrand, 2001:42). Neither the weaker conclusion, namely that modality arises when the copula is combined with an infinitive which lacks the ability to assign accusative, seems tenable. That is because when in (1b) the copula is combined with accusative assigning infinitive, no change in the modal meaning of the sentence arises.
The last conceivable solution that comes to our mind and that can bear on the topic is the idea put forth in e.g. Fillmore, Kay & O’Connor (1988). The authors propose that something what more or less corresponds to an intuitive notion of construction is may actually be a part of the grammar. Construction in their sense may also „be idiomatic in the sense that a large construction may specify a semantics (and/or pragmatics) that is distinct from what might be calculated from the associated semantics of the set of smaller constructions...“ (op. cit. 501). In the case at hand that would mean that the connection of a copula and the infinitive is contained already in the lexicon, where its modal meaning would also be specified.

This may of course be a possibility. The question is whether this move in the situation we face is not actually only a sidestepping to the problem. To our mind, there seems to be some regularity in the construction and we hesitate to adopt such an easy conclusion. Constructions of the type (1) are very restricted in Czech, but they simply do not seem to be absolutely arbitrary. They are formed from three already mentioned perception verbs belonging to a syntactically well-definable class. Namely, these verbs do accept ECM infinitival complements with particular properties, which makes them unlike all other verbs in Czech (see Caha 2004). They also allow a so called copy-raising to their complement (see e.g. the general discussion of copy-raising constructions in Rezac 2004 and see also Caha 2004 for Czech, where the construction is treated under the label pseudorelative-clause). It thus does not sound to us like a reasonable conclusion to have three distinct constructions, namely je videt literally: ‘is see’, je slyjet lit: ‘is hear’ and je citit lit: ‘is smell’ listed separately in the lexicon, as it cannot be an accident that exactly these verbs and no others behave the same in two rather exceptional constructions, but they are listed in the lexicon separately with respect to third construction. That’s simply unlikely.

So far, we have shown that neither is there a modality inducing covert element in the construction, neither is there a combination of elements responsible for modal interpretation, nor is the construction listed separately in the lexicon. We thus conclude that the verb videt ‘see’ itself is responsible for modal interpretation. The reasoning for this conclusion is as follows.

Put broadly, the inability of the verbal root to refer to particular time can, in some cases at least (see Karlík & Caha 2005), be the cause of a modal interpretation. In the present case, we make similar conclusion. When the verb videt ‘see’ loses one of its arguments, it cannot be interpreted as referring to a particular time despite the fact that it remains a verb and retains all inflectional morphology verbs have to perform this task. This can be seen in (15). In (15), the verb cannot be interpreted with time of reference being coincident with the time of utterance and the sentence has modal reading:

(15) **Petr právě teď viděl.**
Peter right now sees
‘Peter can see right now’
This is unexpected given the sentence (16).

(16) **Petr právě teď kouše**

Peter right now bites

‘Peter is biting right now’

The sentence in (16) can have an interpretation which corresponds to English present continuous tense. This reading, however, is not possible for the verb *vidět* ‘see’. Given this contrast, we think that the solution we have arrived to is correct, given the difficulties we face with other conceivable solutions. The modal interpretation of sentences in (1a,b) thus follows, if the verb lacks an external argument. That seems to be the case, as we argued above. The possibility of the perception verbs to lack an external argument when combined with copula is then most probably tight to their special properties mentioned above.

**LITERATURA**


MOORE, J. & PERLMUTTER, D: *What does it take to be a dative subject?* *Natural Language and Linguistic Theory*, 18, 2000, s. 373–416.


JE VIDĚT SNĚŽKU – HLEDÁNÍ MODALITY

V tomto příspěvku zkoumáme vlastnosti konstrukce se sponou byt a slovesem nezaměřené percepce typu *Je vidět Sněžku/Sněžku*. V první části se zaměřujeme na vlastnosti syntaktické a dokazujeme, že infinitiv slovesa *vidět* podléhá tzv. restrukturaci. Tu podle práce Wurmbrandové 2001 teoreticky analyzujeme jako ochuzení struktury funkčních hlav slovesa. To se projevuje tím, že infinitiv slovesa *vidět* a) neuděluje v těchto konstrukcích tematickou roli, b) v určitých kontextech nemá schopnost udělit akuzativ, c) nemá možnost nést aspektuální affixy a d) nemá možnost nést negační prefix. V druhé části analyzujeme sémantické vlastnosti této konstrukce. Klademe si otázku, jaký element/proces vyvolává modální interpretaci této struktury. Dokazujeme, že není možné postulovat nulové adverbiále, ani vychází z toho, že kombinace kopuly a infinitivu *per se* způsobuje modální význam konstrukce. Závěr ohledně kompoziční povahy modality v této konstrukci ponecháváme otevřený, pouze tentativně navrhujeme její původ ve speciálních lexikálních vlastnostech sloves nezaměřené percepce.

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