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Instrumental situations: On case marking in copular clauses in Czech*

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This paper addresses case variation in Czech NP-NP copular clauses, namely, the difference between the NOM-NOM and the NOM-INSTR patterns. We argue that this case alternation should be accounted for in terms of a situation pronoun optionally present within a predicative DP in a copular clause. Specifically, we argue that INSTR DPs contain a syntactically merged situation pronoun in D while NOM DPs do not. The crucial evidence comes from sentences in which a subject DP is realized as an anaphoric pronoun TO which - we argue - is in and of itself an overt manifestation of a situation pronoun. If a subject DP is realized as TO, a predicate DP cannot be in INSTR. We argue that these distributional facts follow from the Situation Economy of Keshet (2010).

1 Introduction

Predicate noun phrases in Czech NP-NP copular clauses (and other Slavic languages) can appear either in Nominative case (henceforth

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NOM) or in Instrumental case (henceforth INSTR). While one of the NPs[1] in a copular clause must be in NOM, the other one may be in INSTR (Kopečný 1958, Uličný 2000), see (1).

(1) Hana byla zpěvačka /zpěvačkou.
Hana was $\text{singer}_{\text{NOM}}$ /$\text{singer}_{\text{INSTR}}$
'Hana was a singer.'

Both NOM and INSTR are possible in (1) and similar examples, however, there are copular clauses in which both NPs must be in NOM. The example in (2) shows one such environment. Examples similar to (2) are going to be crucial for our analysis.

(2) Byla to zpěvačka /*zpěvačkou.
was it $\text{singer}_{\text{NOM}}$/ $\text{singer}_{\text{INSTR}}$
'She was a singer.'

Since NOM is more frequent than INSTR, Uličný (2000) proposes to analyze NOM in Czech copular clauses as a default case and INSTR as a marked case.

Even though copular clauses in which INSTR is preferred over NOM are rare, they do exist. As we see in (3), noun phrases like *příčina* 'cause' appear more often in INSTR than in NOM. We will address copular clauses with nouns like *příčina* later in our analysis as well (section 4).

[1] We will not be particularly consistent while using the labels NP and DP. The convention in the syntactic literature on copular clauses is to use NP, while the relevant semantic literature talks about DPs. The literature disagrees on the diagnostics that would tease apart DPs from NPs. The problem is that, despite some proposals to the contrary (Winter 2001, a.o.), it is not clear what the mapping between the syntactic structure and its semantic interpretation is. Furthermore, not even the presence of overt 'determiners' cuts the pie clearly; see, for instance, Partee 1986, Rothstein 2012, and Kučerová 2014 for arguments that in English 'the NPs' — but not proper names — can be semantically predicates. We assume that there is a connection between D and a referential index-like function (Winter 2001, Borer 2005). But there might be structural differences between argumental DPs and DPs in copular clauses (for instance, in head-movement properties). Irrespective of what the exact structure of these phrases turns out to be, proposals such as that of Pereltsvaig (2007) that make a tight connection between the NP/DP distinction and case assignment/interpretation do not seem to be accurate.

(3) Matka byla ???příčina /příčinou rozvodu.
Mother was cause$_{NOM}$ /cause$_{INSTR}$ of-divorce
'Mother was the cause of the divorce.'

The distribution of NOM versus INSTR has been widely studied in Slavic languages. Most existing proposals concern Russian and Polish. In sections 1.1 and 1.2 we will lay out the basic facts of the syntactic distribution of INSTR in Russian, Polish, and Czech copular clauses and discuss their differences. As we will see, while Russian and Polish morphosyntax of copular clauses is similar, Czech is rather different.

1.1 Syntactic distribution

In Russian and Polish, the distribution of case in NP-NP copular clauses correlates with the form of the copular verb. In Russian, if the copula is null, both NPs must be in NOM:

(4) a. Vera asistent.
Vera assistant$_{NOM}$
'Vera is an assistant.'
b. * Vera asistentom.
Vera assistant$_{INSTR}$
'Vera is an assistant.' (Matushansky 2007)

(5) *Russian:*
If the copula is null both NPs must be in NOM
(Matushansky 2007)

Polish has a verbal copula *jest* 'is' and a nominal copula *to*. Only the verbal copula is compatible with a NP in INSTR (6a). The nominal copula requires the NOM-NOM pattern, irrespective of whether or not the verbal copula is present as well (6b,c).

(6) a. Jan jest moim najlepszym przyjacielem.
Jan is my best friend $_{INSTR}$
'Jan is my best friend.'
b. Jan to mój najlepszy przyjaciel.
Jan PRON my best friend$_{NOM}$
'Jan is my best friend.'

c. Jan to jest mój najlepszy przyjaciel.
Jan PRON is my best friend$_{NOM}$
'Jan is my best friend.' (Citko 2008)

(7) *Polish:*
If the copula is pronominal, both NPs must be in NOM[2]
(Citko 2008)

Crucially, in Czech there are no clear one-way implications between the form of the copula and the case assignment. Copular clauses require a finite copular verb, and the form of the copula is the same in both the NP-NP and the NP-INSTR patterns.

Interestingly, only the NP that must be in NOM triggers phi-feature agreement on the copula. We will call this NP 'NP$_1$'. As we can see in (8), irrespective of the word order, the copula must agree with *Susana*, that is, the invariantly NOM NP. The other NP that may vary in case never triggers agreement (8c). We will call this other NP 'NP$_2$'.

(8) a. Susana byla vítěz /vítězem závodu.
Susana$_{F.NOM}$ was$_F$ winner$_{M.NOM}$/winner$_{M.INSTR}$ of-race
'Susana was the winner of the race.'
b. * Susanou byla/byl vítěz /vítězem
Susana$_{F.INSTR}$ was$_F$/was$_M$ winner$_{M.NOM}$/winner$_{M.INSTR}$
of-race
závodu.
Intended: 'Susana was the winner of the race.'
c. * Susana byl vítěz /vítězem závodu.
Susana$_{F.NOM}$ was$_M$ winner$_{M.NOM}$/winner$_{M.INSTR}$ of-race
Intended: 'Susana was the winner of the race.'

Thus, in Czech, the only immediately observable morphosyntactic restriction is the correlation between case invariability and the ability to trigger agreement. Since there are no additional morphosyntactic restrictions, it is important to investigate the semantic properties of these

[2] In fact, the same holds for Russian pronominal copula *eto*. The NOM-INSTR pattern is impossible in copular clauses containing the pronominal *eto* instead of a verbal copula (Markman 2008).

two case patterns as well.

1.2 Semantic restrictions

Even though the difference is rather subtle in most contexts, the NOM-NOM copular clauses and their NOM-INSTR counterparts are not semantically identical (Kopečný 1958, Uličný 2000). The semantic difference is reminiscent of the individual-level versus stage-level distinction, respectively (Carlson 1977, Kratzer 1995, Geist 1999, Filip 2001, a.o.). However, as pointed out by Geist (1999) and Filip (2001) for Russian, this cannot be the correct characterization of the distinction because purely individual-level predicates such as 'a doctor's daughter' may appear both in NOM and INSTR, as in (9), modeled after Geist (1999).

(9) Petra je dcera /dcerou lékaře.
Petra is daughter$_{NOM}$/daughter$_{INSTR}$ of-doctor
'Petra is a doctor's daughter.'

As explicated by Geist (2007), a more precise formulation of the semantic difference between NOM and INSTR is that INSTR is more likely to be used as a description of a situationally restricted property, such as employment, while NOM describes a more general property of the NP. In most cases, speakers tend to accept both case forms (Uličný 2000). However, if the context is appropriately restricted, the difference emerges. For instance, in (10), the context is restricted to a specific role-playing situation. Consequently, only INSTR is plausible as it restricts the predicate to the role-playing temporal interval. Thus little Johnny is understood as the store manager only during the temporally restricted role-playing situation. In contrast, NOM is odd because it makes Johnny the store manager even outside of the role-playing situation.

(10) Scenario: Children role-playing in kindergarten.
a. # Honzík byl ředitel obchodu.
Honzík was manager$_{NOM}$ of-store
Intended: 'Honzík's (little Johnny's) role in the kindergarten play was a store manager.'

b. Honzík byl ředitelem obchodu.
Honzík was manager$_{INSTR}$ of-store
'Honzík's (little Johnny's) role in the kindergarten play was a store manager.'

In the next section we will review some existing proposals. We will show that they are not empirically adequate for Czech, as they rely on a morphosyntactic make-up which is absent from the language. Consequently, a new proposal is needed.

2 Previous proposals

There are two families of existing proposals for the case alternation in Slavic. One accounts for the case alternation by manipulating the syntactic properties of the extended verbal projection, while the other puts the burden on the syntax-semantics and pragmatics interface.

The first family of the existing proposals (Bailyn 2001, Baylin and Rubin 1991, Matushansky 2008, Pereltsvaig 2007, Franks & Pereltsvaig 2004) accounts for the case distribution morphosyntactically. The core idea of these proposals is based on the one-to-one correlation between the form of the copula and the case assignment in Polish and Russian, discussed in section 1.1.

According to Bailyn (2001), the case alternation corresponds to different case-assigning properties of a copular verb (Pred head). He argues that in NOM-NOM copular clauses both NOMs are assigned by T. In contrast, in NOM-INSTR copular clauses NOM is assigned by T and INSTR is assigned by the Pred head. The intuition is that the Pred head in NOM-INSTR clauses behaves like a transitive verb and assigns INSTR in the same way that a transitive verb assigns case to its complement. In NOM-NOM clauses, the Pred head does not have case-assigning properties.

Authors such as Matushansky (2000) and Markman (2008) take seriously the semantic distinction and argue that the spatiotemporal restriction associated with INSTR requires either an aspectual projection (Matushansky 2000), or a form of eventive predication (Markman 2008).

Geist (2005) agrees with the above mentioned syntactic analyses in that if an NP is in NOM or in INSTR, then each case corresponds to a distinct predicate phrase. The NOM NP agrees in case with the subject of

the copular clause. The INSTR NP corresponds to an extended predicative projection where the Pred head bears an unchecked INSTR feature. Geist, however, departs from the other proposals in arguing that the unchecked INSTR feature on the Pred head contains a specificity presupposition that links the INSTR NP to a specific topic situation. In contrast, there is no specificity presupposition in NOM. That is, there is no Pred Head that would bear the case feature related to the presupposition.

The problem with these proposals is that they do not straightforwardly extend to Czech, as Czech lacks the one-way implications between copula and case attested in Polish and Russian. Furthermore, as we will see in section 3.2, in Czech there are non-trivial interactions between NP_1 and NP_2, if NP_1 is realized as an anaphoric pronoun TO ('it' or 'that'). Even though these constructions are restricted to a specific topic situation, their case pattern must be NOM-NOM. This is unexpected under the existing proposals because they predict an interaction between the copula and the NP_2, but no interaction between the two NPs. To account for this problem, we will adopt Geist's insight about topic situations but we will argue that the locus of the situational restriction is within the NP itself and not in the extended predicative projection.

3 The Proposal

3.1 Towards the analysis

The motivation for the analysis to be proposed in section 3.3 comes from a seemingly rather different set of facts, namely, the definiteness marking in Bavarian German. Bavarian German has two morphologically distinct definite articles (Ebert 1971, Krifka 1984, Schwager 2007, Schwarz 2009). The examples in (11) from Schwager (2007) demonstrate their semantic properties. The strong article in the question 'Do you know who the speaker is?' inquires about a general property of a speaker who, for example, stands in front of us but we do not know anything about her (her name, affiliation, etc.). The weak article presupposes the existence of a specific referent but we do not know who the referent is. For instance, this question could be used in a conference setting if we did not know who is scheduled as the next speaker. Interestingly, as we can see in (12), the syntactic distribution of the strong article in copular clauses

corresponds to NOM in Czech, and the distribution of the weak article corresponds to INSTR.

(11) Wast du wea dea/da Redna is?
know you who the_s/the_w speaker is
the_s: 'Do you know who this speaker is (what's his name/affiliation/…)?'
the_w: 'Do you know who is going to speak (e.g. in the next slot)?'

(12) a. Kdo je ten řečník?
who is that $speaker_{NOM}$
~the_s: 'Do you know who this speaker is (what's his name/affiliation/…)?'

b. Kdo je tím řečníkem?
who is that $speaker_{INSTR}$
~the_w: 'Do you know who is going to speak (e.g. in the next slot)?'

Crucially, both in Czech and Bavarian German, the semantic difference is morphosyntactically localized within the DP. In Bavarian, the semantic distinction affects the morphosyntax of D itself (or its specifier (Kučerová and Hardy 2014)) and it is not likely to depend on a Pred head. We will use this similarity between Czech and Bavarian German to motivate our analysis of the Czech case alternation as a reflex of a situation pronoun within a DP. The evidence, to be discussed in the next section, comes from copular clauses with anaphoric pronoun TO.

3.2 TO-copular clauses

The Czech demonstrative pronoun TO can refer to antecedents of any gender and number even though it is invariably N.SG (Bartošová & Kučerová 2014). Crucially, if TO is an NP_1 in a copular clause, NP_2 must be in NOM (13).

(13) Minulé léto Petr chodil s krásnou holkou.
last summer Petr walked with beautiful $girl_{F.SG}$
'Last summer Petr dated a beautiful girl.'

a. Byla to zpěvačka.[3,4]
was$_{F.SG}$ TO singer$_{NOM}$
b. * Bylo /a to zpěvačkou.
was$_{N.SG}$ /$_{F.SG}$ TO singer$_{INSTR}$
'That/she was a singer.'

Note that Czech TO is not the same syntactic object as TO in Polish. Czech TO is an argument and in an NP-NP copular clause it replaces one of the NPs. Polish TO is a nominal copula and consequently it co-occurs with two NPs (Citko 2008).

That NP_2 in a TO copular clause cannot be in INSTR is surprising because neither other pronouns nor *pro*-drop share this restriction on case, as witnessed by the examples in (14)-(16).

(14) *Personal pronoun:*
a. Ona byla zpěvačka.
she was$_{F.SG}$ singer$_{NOM}$
b. Ona byla zpěvačkou.
she was$_{F.SG}$ singer$_{INSTR}$
'She was a singer.'

(15) *Pro-drop:*
a. Byla zpěvačka.
was$_{F.SG}$ singer$_{NOM}$
b. Byla zpěvačkou.
was$_{F.SG}$ singer$_{INSTR}$
'She was a singer.'

[3] There are two versions of TO in Czech copular clauses, a weak pronoun which linearly appears after the copula, and a strong pronoun which appears at the left periphery (i.e. precedes the verb). In this paper we will only be using the weak version of the pronoun as in most of our contexts it better fits the information structure of the clause.

[4] Note that in copular clauses with TO, the copula agrees with NP_2. Kučerová & Bartošová (2014, 2015) argue that TO is phi-feature deficient and hence cannot trigger agreement.

(16) *Demonstrative pronoun*:[5]
a. Ta byla zpěvačka.
that$_{F.SG}$ was$_{F.SG}$ singer$_{NOM}$
b. Ta byla zpěvačkou.
that$_{F.SG}$ was$_{F.SG}$ singer$_{INSTR}$
'She was a singer.'

We argue that the relevant distinction between TO and other pronouns lies in their semantic properties. Pronouns, proper names, and other definite descriptions can either denote individuals of type *e*, or individual concepts, i.e., individuals relativized to a situation (type ⟨*s*,*e*⟩; Elbourne 2005, 2008, Percus & Sharvit 2014).[6] The example in (17) demonstrates the contrast between the individual and the individual concept reading for English. In (17a) *he* refers to an individual about whom it is true that he is currently the Pope, while in (17b) *he* refers to different Popes in different situations, i.e., *he* denotes an individual concept.

(17) a. He [= Francis] is Argentinian.
b. He [= whoever the Pope is] is usually Italian.

English personal pronouns are systematically ambiguous between these two readings. We argue that Czech personal pronouns, demonstrative pronouns and *pro* are not ambiguous: they denote individuals. TO is special in that it denotes an individual concept, i.e., a minimal situation which contains an individual.[7] The example in (18), parallel to what we

[5] The examples with demonstratives are somewhat odd without an appropriate contrastive context. For some speakers, adding a relative clause, as in *Ta, na rozdíl od té jeho současné…* 'That one, in contrast to his current girlfriend…', improves grammaticality.

[6] Two clarifications are in order: in contrast to Elbourne, we side with Percus & Sharvit (2014) in that both individuals and individual concepts are possible denotations of definite descriptions. Second, for ease of exposition we use a version of situational semantics in which every argument does not combine with a situational characteristic function. In the actual analysis, we will clarify that what we really mean by ⟨*s*,*e*⟩ is a DP with a syntactically present situation pronoun, instead of a DP purely having a semantic situational argument.

[7] Since TO is of type ⟨*s*,*e*⟩, one might wonder whether TO is not an NP_2. If that were the case, then TO could alternate between NOM and INSTR. As (i) shows, this is not the case.

saw in (17) for English, demonstrates this distinction. To get the interpretation parallel to (18b), i.e., that it is true that 'Peter's girlfriends' were usually singers, TO must be used. TO denotes an individual concept of 'whoever happened to be Peter's girlfriend in the past', (18a). In contrast, a personal pronoun (18b), *pro* (18c), or a demonstrative pronoun (18d) cannot range over multiple 'Petr's girlfriends'. They must refer to a single individual.

(18) Petr vždycky chodil s krásnou holkou.
Petr always walked with beautiful girl
'Petr always dated beautiful girls.'

a. ✓ *TO:*
   (i) Obvykle to byla zpěvačka.
   usually TO was $\text{singer}_{\text{NOM}}$
   (ii) * Obvykle to byla zpěvačkou.
   usually TO was $\text{singer}_{\text{INSTR}}$
   'She was usually a singer.'

b. # *Personal pronoun:*
   (i) # Ona byla obvykle zpěvačka.
   she was usually $\text{singer}_{\text{NOM}}$
   (ii) # Ona byla obvykle zpěvačkou.
   she was usually $\text{singer}_{\text{INSTR}}$
   Intended: 'She was usually a singer.'

c. # *Pro-drop:*
   (i) # Obvykle byla zpěvačka.
   usually was $\text{singer}_{\text{NOM}}$
   (ii) # Obvykle byla zpěvačkou.
   usually was $\text{singer}_{\text{INSTR}}$
   Intended: 'She was usually a singer.'

d. # *Demonstrative pronoun:*
   (i) # Ta byla obvykle zpěvačka.
   $\text{that}_{\text{F.SG}}$ was usually $\text{singer}_{\text{NOM}}$

(i) * Byla tím zpěvačka.
$\text{was}_{\text{F.SG}}$ TO_{INSTR} $\text{singer}_{\text{NOM}}$

(ii) # Ta byla obvykle zpěvačkou.
that$_{F.SG}$ was usually singer$_{INSTR}$
Intended: 'She was usually a singer.'

Note also that while the INSTR NP is ungrammatical with TO in (18aii), it is grammatical but not felicitous in the other (ii) examples. If the context was set up so that the subject pronouns were interpreted as individuals, both (18bii) and (18cii) would be fully acceptable. The quantificational element 'usually' would then range over different situations with an identical referent. An example of such a context would be: 'Mary used to play in several punk-rock bands with her friend John. While John was a multi-instrumentalist and he played a different instrument in each band, she was usually a singer.' In other words, 'she' refers to Mary in multiple punk-rock bands. We can summarize the data pattern we have seen so far in the empirical generalization in (19).

(19) *Generalization (v.1)*
a. if NP_1 is an individual, NP_2 may be in INSTR
b. if NP_1 is an individual concept, NP_2 must be in NOM

TO may refer not only to individual concepts but to situations or sub-situations as well. Crucially, none of these interpretations allows NP_2 to be in INSTR. We can see this in (20b) where TO refers to the situation of our visit of the castle. Note also that while the individual-concept-denoting TO is best translated to English as a personal pronoun (*she*, *he*), the appropriate translation of the situation-denoting TO is *it*.

(20) S Lucií jsme navštívily hrad v New Jersey.
with Lucie are visited castle in New Jersey
'Lucie and I visited a castle in New Jersey.'
a. Byl to krásný výlet.
was TO beautiful trip$_{NOM}$
b. * Bylo TO krásným výletem.
was TO beautiful trip$_{INSTR}$
'It [= our visit/that we visited the castle] was a beautiful trip.'

The common denominator of the two interpretations of TO, i.e., as individual concept and situation or as sub-situation, is that they are of a

situational type.[8] We argue that it is this semantic property that underpins the case alternation. Our revised empirical generalization that captures the pattern is in (21).

(21) *Generalization (v.2)*
If NP_1 is of a situational type, NP_2 must be in NOM.

3.3 The properties of DPs

How should we explain the pattern described above and the interactions between the two NPs in Czech copular clauses?

Step 1: INSTR versus NOM. We follow the Czech descriptive literature (Kopečný 1958, Uličný 2000) and Slavic formal literature discussed above in that INSTR NP in a copular clause is used when the proposition refers to a spatiotemporally restricted event. Specifically, we follow Geist (2007) in that we treat INSTR as restricting the predication to a specific topic situation. However, we depart from Geist (2007) in that we do not tie the semantic difference between INSTR and NOM to the presence versus absence of a Pred head. Instead, we place the locus of the semantic distinction into the DP itself, analogically to the analysis of Bavarian definite articles.

Concretely, we argue that INSTR in copular clauses is an overt morphological mapping of a DP that contains a situation pronoun (in the sense of Percus 2000, Keshet 2008, 2010, von Fintel & Heim 2007/2011, Schwarz 2012, among others).[9] A situation pronoun is a syntactically merged item whose semantic value is a situation.

We thus follow Schwarz (2012) in stating that situation pronouns are distinct from semantic situation arguments. While all predicates have semantic situation arguments, i.e. they are interpreted with respect to some world or situation and they are bound within some world of evaluation, a situation pronoun can be syntactically merged only in determiners of certain DPs.[10] Finally, we argue that the crucial difference

[8] See Bartošová (to appear) for an analysis of TO as being of a flexible semantic type.

[9] For reasons of space we cannot fully elaborate on the theory of case assignment we assume. In general, we follow the Distributed Morphology framework: for us, INSTR is an overt morphological realization of a feature bundle that contains a situation pronoun, more precisely, its featural representation.

[10] As Schwarz (2012) points out, having every semantic situation argument for each predicate represented as a situation pronoun would lead to overgeneration.

between the binding of semantic arguments and a situation pronoun is that a situation pronoun must be bound by 'a situation under discussion', i.e., a contextually restricted (sub)situation (cf. Roberts 2012, von Fintel 1994, Büring 2003, among others). In other words, while a semantic argument of a predicate can be enclosed under an existential closure, a situation pronoun requires an anaphoric antecedent, i.e., a contextually restricted (sub)situation.[11]

This still does not explain why TO cannot co-occur with INSTR NP_2 and thus we need to say something more about TO. The same objection applies to Geist's (2007) original analysis. However, as we will discuss in Step 3, the distribution of situation pronouns can be further restricted.

Step 2: TO. While other pronouns and *pro* refer strictly to individuals and not individual concepts, as we have seen in (18), TO is always of a situational type. We argue that the reason for this is that TO is an overt morphological realization of a structure containing a situation pronoun (or might even be an overt situation pronoun itself):

(22) TO = SP

Step 3: Situation Economy. So far we have established two important points: (i) in copular clauses, NOM NPs do not contain situation pronouns unless they are realized as TO; (ii) if an NP is realized as TO or if an NP is in INSTR, it always contains a situation pronoun. We need to take one step further in order to explain why NP_2 must be in NOM if NP_1 is realized as TO.

Here we depart from Schwarz (2012) in that we assume that the distribution of situation pronouns is regulated by the Situation Economy of Keshet (2010)[12]:

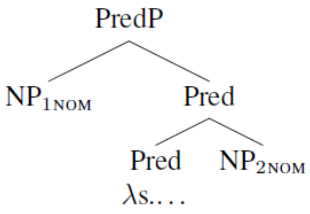
[11] We are not sure what the exact denotation of a situation pronoun is. Note that in a system such as that of Elbourne (2005, 2008, 2013) or Percus and Sharvit (2014), the work is being done by a (presupposed) referential index either in the denotation of the pronoun, or the denotation of the copula. This implementation works well for individual concepts but does not straightforwardly extend to the other configurations discussed here.

[12] Situation Economy belongs to a larger family of semantic economy principles which operate at the syntax-semantics interface (Heim 1991, Fox 1995, Reinhart 2006, Kučerová 2007, among others).

(20) *Situation Economy*
Rule out a structure α if there is a grammatical alternative to α that has fewer situation pronouns. (Keshet 2010)

Step 4: How it works.[13]

(21) NOM-NOM

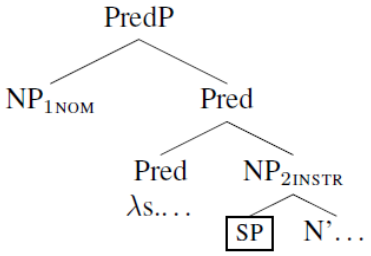


✓ Situation Economy

Let us first look at the basic NOM-NOM pattern. There is no situation pronoun in the structure because there is no contextually restricted situation that would require being bound by a situation pronoun. As all predicates bear a semantic situation argument and there is no contextually salient situation that would need to be bound by a situation pronoun, no situation pronoun is necessary. Only the predicate bears a semantic situation argument which is bound by the λ on the Pred head. A situation pronoun is not needed and consequently is excluded by Situation Economy. In turn, the NP_2 is realized as NOM (21). The NOM-NOM pattern is a grammatical alternative to the NOM-INSTR pattern which contains fewer situation pronouns. More precisely, the NPs in the NOM-NOM pattern do not contain any situation pronoun. As no situation pronoun is required on the NPs, the copular clause surfaces as NOM-NOM.

[13] The following trees are for clarity of presentation only; that is, their structure is rather crudely simplified.

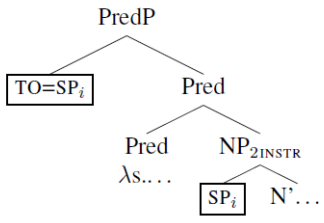
(22) NOM-INSTR



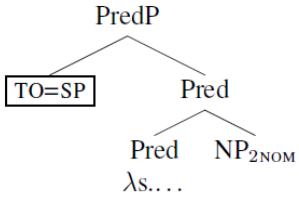
✓ Situation Economy

In the NOM-INSTR pattern, the matrix predication is restricted to a contextually restricted situation and a situation pronoun is needed in this type of copular clauses. Since a situation pronoun may only be merged within certain DPs (Schwarz 2012), a situation pronoun is merged in the noun phrase within the predicative part of the structure. On the surface, this DP is morphologically realized as INSTR (see the tree in (22)), as INSTR DPs contain situation pronouns while NOM DPs do not. In other words, the context requires the copular clause to be bound within a contextually salient situation. Thus the copular clause surfaces as NOM-INSTR and not as NOM-NOM, because the NPs in the NOM-NOM pattern lack a situation pronoun.

(23) TO-NOM



* Situation Economy



✓ Situation Economy

In the case of the TO-NOM pattern, the matrix predication is restricted to a contextually salient situation and a syntactically represented situation pronoun is necessary. However, since there is already a situation pronoun in the structure within TO, the Situation Economy prevents the merge of another situation pronoun which would be anaphoric to the same contextually restricted situation. Consequently, the TO-INSTR pattern is ruled out because there is a more economical structure, namely, TO-NOM (23).[14]

4 Predictions

4.1 More than one proposition → more than one situation pronoun

Our analysis predicts that if there is more than one contextually salient situation, there could be more than one situation pronoun within a single copular clause. In other words, if the distribution of INSTR is restricted by Situation Economy, we expect TO to co-occur with an INSTR NP but only if the situation pronoun within INSTR NP refers to a situation distinct from the contextually salient situation of the matrix predication.

This prediction is borne out with NPs denoting a concealed proposition (Heim 1979, Nathan 2006, Percus 2014). If NP_2 corresponds to a complex nominal structure containing a proposition, this inner proposition can in principle be bound by a contextually restricted situation distinct from the contextual restriction on the matrix predicate (TO). As the following examples with *příčina* 'cause' demonstrate, this prediction is borne out. If NP_1 is TO and NP_2 is a concealed proposition, NP_2 may appear in INSTR (24).[15]

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[14] An anonymous reviewer correctly pointed out that our analysis involves an inherent asymmetry between NP_1 and NP_2 in that NP_1 can be a situation pronoun but cannot contain it. In contrast, NP_2 may contain a situation pronoun but cannot be a situation pronoun itself. We do not have a principled explanation for the difference, mostly because we lack an understanding of the interaction between situation pronouns associated with a TP and its counterparts associated with nominal structures.

[15] An anonymous reviewer correctly pointed out that the existence of TO-INSTR constructions when an additional contextually salient situation is available not only confirms the predictions of the analysis, it is able to disprove a possible alternative case-based analysis, according to which the obligatory nominative case on NP_2 in the presence of TO is just a reflex of the obligatory agree relationship between the copula and NP_2.

(24) Petr potkal nádhernou dívku.
Petr met beautiful girl
'Petr met a beautiful girl.'
a. Byla to příčina jeho rozvodu.
was TO $cause_{NOM}$ of-his divorce
b. Bylo TO příčinou jeho rozvodu.
was TO $cause_{INSTR}$ of-his divorce
'It [= that Petr met the girl] was the reason of his divorce.'

4.2 Concealed propositions → INSTR without TO

Since concealed propositions contain a proposition that needs to be situationally bound, if a concealed proposition cannot be parasitic on another situation pronoun in the structure, we expect the concealed proposition to combine with a situation pronoun more often than other types of NPs. Recall the example in (3) in which INSTR was preferred over NOM in a copular clause containing the concealed proposition *příčina*. This prediction is further confirmed by the distribution of INSTR in the Czech National Corpus. There are only a few dozen of instances of *příčina* in NOM in the relevant syntactic contexts, that is, those in which the NP could have appeared in INSTR. In contrast, there are 2,518 instances of *příčina* in INSTR. This distribution sharply contrasts with concealed propositions in TO-copular clauses where only about a half of NP_2s denoting concealed propositions are in INSTR.

5 Conclusions

We have argued that the case variation in Czech NP-NP copular clauses needs to be accounted for in terms of the distribution of situation pronouns within a syntactic structure. Specifically, we have argued that while the anaphoric pronoun TO and INSTR NPs contain a syntactically merged situation pronoun, NOM NPs do not. Furthermore, we have argued that the distribution of situation pronouns is regulated by the Situation Economy of Keshet (2010). This economy condition on representations rules out structures that contain more situation pronouns than necessary in the given context. Even though we restricted our analysis to Czech copular clauses, the analysis lends itself to an extension to Polish and Russian pronominal copulas as well. Since in Polish and Russian the nominal copula (TO) is incompatible with the

NOM-INSTR pattern, it is plausible that the pronominal copula is a situation pronoun (or might contain one). Consequently, the NOM-pronominal copula-INSTR structure might be ruled out by the Situation Economy analogically to the TO-INSTR pattern in Czech. The details of the extended analysis, however, have to await another occasion.

References

Bailyn, John and Edward J Rubin. 1991. The Unification of Instrumental Case Assignment in Russian. *Cornell working papers in linguistics* 9, 99–126.

Bailyn, John Frederick. 2001. On Scrambling: A Reply to Bošković and Takahashi. *Linguistic Inquiry* 32, 635–658.

Bartošová, Jitka and Ivona Kučerová. 2014. Against a unified NP deletion analysis of pronouns: Evidence from demonstratives in Czech. In *Complex Visibles Out There. Proceedings of the Olomouc Linguistics Colloquium 2014: Language Use and Linguistic Structure*. Olomouc: Palacký University.

Bartošová, Jitka and Ivona Kučerová. 2015. On Person, animacy, and copular agreement in Czech. Workshop on copulas across languages. University of Greenwich, London, UK (June 2015)

Bartošová, Jitka. To appear. Semantic Analysis of Czech Demonstrative Pronoun TO. In *Proceedings of FDSL 10.5*. Brno.

Borer, Hagit. 2005. *Structuring Sense: An Exo-skeletal Trilogy*. New York: Oxford University Press.

Büring, Daniel. 2003. On D-Trees, Beans, and B-Accents. *Linguistics & Philosophy* 26, 511–545.

Carlson, Gregory N. 1977. *Reference to Kinds in English*. Doctoral Dissertation. University of Massachusetts. Amherst.

Citko, Barbara. 2008. Small Clauses Reconsidered: Not so small and not all alike. *Lingua* 118, 261–295.

Elbourne, Paul. 2005. *Situations and individuals*. MIT Press.

Elbourne, Paul. 2008. Demonstratives as individual concepts. *Linguistics and Philosophy* 31, 409–466.

Elbourne, Paul. 2013. *Definite Descriptions*. Oxford-New York: Oxford University Press.

Filip, Hana. 2001. The Semantics of Case in Russian Secondary Predication. In *Semantics and Linguistic Theory*, 192–211.

von Fintel, Kai and Irene Heim. 2007/2011. *Lecture Notes on Intensional Semantics*. MIT.

von Fintel, Kai. 1994. *Restrictions on Quantifier Domains*. Doctoral Dissertation. University of Massachusetts at Amherst.

Fox, Danny. 1995. Economy and Scope. *Natural Language Semantics* 3, 283–341.

Franks, Steven and Asya Pereltsvaig. 2004. Functional Categories in the Nominal Domain. In *Proceedings of FASL 12*, 109–128. MI: University of Michigan Press.

Geist, Ljudmila. 1999. Russisch byt' ('sein') als funktionale und/oder lexikalische Kategorie. *ZAS papers in linguistics* 14, 1–39.

Geist, Ljudmila. 2007. Predication and Equation in Copular Sentences: Russian vs. English. Springer.

Heim, Irene. 1979. Concealed Questions. In *Semantics from different points of view*, 51–60. Springer.

Heim, Irene. 1991. Artikel und Definitheit. In *Semantik: Ein internationals Handbuch der zeitgenössischen Forschung*, 487–535. Berlin: Mouton de Gruyter.

Keshet, Ezra. 2008. Only the Strong: Restricting Situation Variables. In *Proceedings of SALT* 18, 483–495.

Keshet, Ezra. 2010. Situation Economy. *Natural Language Semantics* 18, 385–434.

Kopečný, František. 1958. *Základy české skladby [Basics of Czech Syntax]*. Praha: Státní pedagogické nakladatelství.

Kratzer, A. 1995. Individual-Level Predicates. *The Generic Book*.

Schwager, Magdalena. 2007. (Non-)functional Concepts: Definite Articles in Bavarian. Talk presented at the 8th Szklarska Poreba Workshop.

Kučerová, Ivona. 2007. Agreement in Icelandic: An Argument for Derivational Theory of Intervention Effects. In *Proceedings of the 34th wecol 2006*. 272–284. Fresno, CA: Department of Linguistics, California State University.

Kučerová, Ivona and Rachael Hardy. 2014. Two Scrambling Strategies in German: Evidence from PPs. An extended abstract of a talk presented at the annual meeting of Linguistic Society of America, Minneapolis, MI, January 2014 [published online].

Markman, Vita G. 2008. Pronominal copula constructions are what? Reduced specificational pseudo-clefts. In *Proccedings of WCCFL* 26,

366–374.
Matushansky, Ora. 2000. The Instrument of Inversion: Instrumental Case in the Russian Copula. In *Proccedings of WCCFL* 19, 288–301.
Matushansky, Ora. 2008. A Case study of Predication. *Studies in Formal Slavic Linguistics. Contributions from Formal Description of Slavic Languages* 6, 213–239.
Nathan, Lance Edward. 2006. *On the Interpretation of Concealed Questions*. Doctoral Dissertation, Massachusetts Institute of Technology.
Partee, Barbara. 1986. Ambiguous pseudoclefts with unambiguous be. In *Proceedings of NELS 16*, 354–366.
Percus, Orin. 2000. Constraints on Some Other Variables in Syntax. *Natural Language Semantics* 8, 173–229.
Percus, Orin. 2014. What Concealed Questions might conceal. In *The art and craft of semantics: A festschrift for Irene Heim*, Volume 2 of MITWPL 71, 23–45. MITWPL.
Percus, Orin and Yael Sharvit. 2014. Copular Asymmetries in Belief Reports. A poster presented at the SALT 24. New York University.
Pereltsvaig, Asya. 2007. *Copular Sentences in Russian: A Theory of Intra-clausal Relations.* Springer.
Reinhart, Tanya. 2006. *Interface Strategies. Optimal and Costly Computations*. Cambridge, MA: MIT Press.
Roberts, Craige. 2012. Information Structure in Discourse: Towards an Integrated Formal Theory of Pragmatics. *Semantics and Pragmatics* 5, 1–69.
Schwarz, Florian. 2012. Situation Pronouns in Determiner Phrases. *Natural Language Semantics* 20, 431–475.
Uličný, Oldřich. 2000. *Instrumentál v struktuře české věty [Instrumental in the structure of a Czech clause]*. Praha: Nakladatelství Karolinum.
Winter, Yoad. 2001. *Flexibility Principles in Boolean Semantics: Coordination, Plurality and Scope in Natural Language*. Cambridge, Mass.: MIT Press.

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