# Chapter 6

# Czech infinitival conditionals

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The paper deals with complex Czech sentences that consist of a finite matrix clause and an infinitival subordinate clause. The latter receives a conditional interpretation although there is no item to signal that function. Interestingly, an overt nominative subject can be realized within the infinitival clause. Conditional sentences of this type occur in Czech and Slovak only. The following issues are addressed in the paper: size of the infinitival clause, connection with the matrix, surface order, nominative case licensing, and interpretation. The proposal builds on the idea that finiteness is a conspiracy of tense and agreement marking (see Stowell 1982; 1995; Wurmbrand 2001). Infinitival structures come in two variants: tensed vs. untensed. Nominative subjects are realized in the former but not the latter. We assume an economical division of labour between null and overt subjects. The proposal invokes un/interpretable un/valued T-/Φ-features for an explanation (see Pesetsky & Torrego 2001). The issues of how the conditional interpretation comes about and what might possibly help to reach it are addressed as well.

**Keywords**: infinitives, conditionals, complex sentences, syntax, interpretation, nominative case licensing, non/finiteness, Czech

### 1 Introduction

Within the Slavic branch, Czech and Slovak are the only languages to exhibit a peculiar non-finite, clause-like structure. It is used and interpreted as a conditional clause. Therefore, we will call it INFINITIVAL CONDITIONAL (IC); see the following example:

(1) [Já bý-t tebou], še-l by-ch k lékař-i.

I.NOM be-INF you.INS.SG go-LPT.SG.M COND-1SG to doctor-dat.SG

'If I were you, I would go to the doctor.' (Czech; Trávníček 1951: 683)

Syntactically, ICs are peculiar in that they are headed by an infinitive, but may nevertheless contain an overt subject in the nominative case (NOM). This pattern is suprising not only in Slavic languages, but in Indo-European in general. Still, similar structures (though not conditional) exist, for instance in Tamil; see (2):

(2) Raman [(Vasu) puuri-jæ porikk-æ] maavŭ vaang-in-aan. Raman.nom Vasu.nom puuri-ACC fry-INF flour.ACC buy-PST-M.3SG 'Raman bought flour (for Vasu) to fry puuris.'

(Tamil; McFadden & Sundaresan 2018: 467)

A number of authors have addressed the phenomenon of Czech ICs descriptively, among them Svoboda (1959; 1960a,b; 1962); Poldauf (1959); Porák (1959); Kiparsky (1960; 1967); Dunn (1982); Karlík (2007); Meyer (2010); Milotová (2011; 2012). Apart from that, more or less detailed notes on ICs can be found in Křížková (1972); Macháčková (1980), the *Mluvnice spisovné češtiny* (Trávníček 1951), Bauer & Grepl (1981), and Grepl & Karlík (1998). To the best of our knowledge, the present paper is the first attempt of a formal theoretical account of these structures.

The remainder of the paper is structured as follows: §2 characterizes properties of the structure and provides relevant data. In §3, we discuss both the internal and external syntax of ICs, while §4 deals with NoM-licensing. In §5, we tackle the question of how the conditional interpretation of ICs arises. §6 summarizes the paper.

## 2 Description

We provide only a brief characterization of Czech IC structures (see Junghanns & Pitsch 2019 for a more detailed description).

1. ICs minimally consist of an infinitive (INF) which may be of all possible valency classes and both aspects.<sup>2</sup> Typically, but not obligatorily, the INF occupies the initial syntactic position in the IC; see (3), (4), and (5):

<sup>&</sup>lt;sup>1</sup>Several Indo-European languages feature non-finite – but not infinitival – structures that allow NOM-subjects. Well-known examples are gerundial clauses in English or Spanish. Russian exhibits non-canonical imperatives that combine with subjects of any person/number (see, a. o., Xrakovskij 2009); it is, however, an open question whether the imperative (in this use) is a non-finite form. The same question pertains to the "inflected infinitive" in European Portuguese (see Raposo 1987), as the relevant paradigm involves person/number markers.

<sup>&</sup>lt;sup>2</sup>Svoboda (1959) mentions the example in (i) with an IC consisting of an infinitive only:

(3) [Ne-mí-t sv-ou hudb-u], tak se tu

NEG-have-INF own-ACC.SG.F music-ACC.SG.F so REFL here
z-blázní-m!

PF-become.insane-1SG

'If I had not my music, I would become insane here.'

(Czech; Milotová 2012: 4)

- (4) [Dozvědě-t se to Němc-i], tak nás [...]
  learn; PF-INF REFL this.ACC.SG.N German-NOM.PL so we.ACC
  po-stříle-l-i.
  PF-shoot-LPT-PL.M
  'If the Germans had learnt that, they would have shot us.'
  (Czech; Meyer 2010: 371)
- (5) [Já mí-t peníz-e], koupí-m to /
  I.NOM have-INF money-ACC.PL buy;PF-1sG this.ACC.SG
  koupi-l jsem to.
  buy;PF-LPT.SG.M be.1sG this.ACC.SG
  'If I had money, I would buy this.'/'If I had had money, I would have bought this.' (Czech; Trávníček 1951: 683)

In addition to the INF, ICs may contain sentential negation (*ne-*), objects, and adverbials. On the other hand, ICs *never* contain a (conditional) subjunction or wh-pronouns.<sup>3</sup>

2. ICs can have an overt NOM-subject which may be a full nominal expression or a pronoun; see (6) and (7), respectively:

<sup>3</sup>The absence of a subjunction is a major difference in comparison with infinitival conditionals in Polish, which obligatorily contain a conditional subjunction; see (i):

(i) [Jeśli się przyjrze-ć bliżej], to widać na dole mał-e literk-i.

if REFL look.at-INF closer then visible at bottom little-ACC.PL letter-ACC.PL

'If one takes a closer look, one can see little letters at the bottom.'

(Polish; Engel & Rytel-Kuc 1999: 455)

Apart from this difference, Polish infinitival conditional clauses exclude NOM-subjects.

<sup>(</sup>i) [Prše-t], zůsta-l-i bych-om doma.
rain-INF stay-LPT-PL-M COND-1PL at.home
'If it rained, we would stay at home.' (Czech; Svoboda 1959: 167)

- (6) [Bý-t otec doma], by-l-o by se
  be-INF father.NOM at.home be-LPT-SG.N COND.3SG REFL
  to ne-sta-l-o.
  this.NOM.SG.N NEG-happen-LPT-SG.N
  'If father had been at home, this would not have happened.'
  (Czech; Svoboda 1960a: 65)
- (7) [U-děla-t to někdo dnes], ne-by-l-o
  PF-make-INF this.ACC somebody.NOM today NEG-be-LPT-SG.N
  by na tom nic výjimečn-ého.
  COND.3SG on this.LOC nothing extraordinary-GEN.SG.N
  'If somebody did this today, there would not be anything extraordinary about it.' (Czech; Milotová 2012: 1)
- 3. The subject of ICs can be coreferential or non-coreferential with the subject of the matrix clause; see, e. g., (4), (5) and (6), (7), respectively.
- 4. ICs either precede or follow their matrix clause. Examples (1) and (3) to (7) illustrate the former case, while the latter one is exemplified by (8):
  - (8) Ži-l-a by-s úplně jinak, [ne-bý-t live-lpt-sg.f cond-2sg completely differently neg-be-inf válk-y]?
    war-gen.sg
    'Would you have led a completely different life, if there had not been the war?'
    (Czech; Milotová 2012: 7)
- 5. ICs refer to specific situations in the extralinguistic world (Svoboda 1960a: 77); see the finite conditional *-li*-clause in (9a) with a generic interpretation as opposed to the IC in (9b) which refers to a specific situation of coal burning:
  - uhl-í (9) a. [Shoří-li 1 kg na ohništ-i burn.down;pf.3sg=if 1 kg.nom coal-gen.sg on grate-loc.sg kotl-e parn-ího stroj-e], vvdá 7000 boiler-GEN.SG steam-GEN.SG engine-GEN.SG emit; PF.3SG 7000 velk-ých kalori-í. big-gen.pl calory-gen.pl 'If 1 kg of coal burns down on the grate of a boiler of a steam engine, it emits 7000 kilocalories.'

b. [Shoře-t 1 kg uhl-í na ohništ-i burn.down;pf-inf 1 kg.nom coal-gen.sg on grate-loc.sg kotl-e parn-ího stroj-e], vydá 7000 boiler-gen.sg steam-gen.sg engine-gen.sg emit;pf.3sg 7000 velk-ých kalori-í. big-gen.pl calory-gen.pl 'If 1 kg of coal was burning down on the grate of a boiler of a steam engine, it would emit 7000 kilocalories.'

(Czech; Svoboda 1960a: 77)

- 6. ICs express conditions and are therefore interpreted like finite conditional clauses marked by one of the subjunctions <code>jestli(že)</code>, <code>kdyby</code>, <code>když</code>, <code>-li</code>, <code>pak-liže</code>, or <code>pokud</code> 'if'. This is illustrated in (10), where the IC-example (8) from above is re-used and contrasted with a <code>kdyby</code>-clause with the same meaning:
  - (10) a. Ži-l-a by-s úplně jinak, [ne-bý-t live-lpt-sg.f cond-2sg completely differently neg-be-inf válk-y]?

    war-gen.sg

    'Would you have led a completely different life, if there had not been the war?'
    - b. Ži-l-a by-s úplně jinak, [kdy-by live-lpt-sg.f cond-2sg completely differently if=cond.3sg ne-by-l-a válk-a]?
       NEG-be-lpt-sg.f war-nom.sg.f
       'Would you have led a completely different life, if there had not been the war?'

Finally, it should be noted that, unlike the above-mentioned types of conditional clauses with explicit conditional subjunctions, ICs never express real conditions, but are restricted to irreal (hypothetical and counterfactual) conditions.

## 3 Syntax of ICs

In this section, we discuss and analyze the internal (§3.1) and external (§3.2) syntax of Czech ICs. Assumptions are kept as minimal as possible.

## 3.1 Internal syntax

A number of facts provide evidence for the size of ICs.

A first thing to note is that given the INF is a transitive predicate, ICs contain objects; see (11). Objects are base-generated in VP, so ICs are at least VPs.

(11) [Ne-mí-t sv-ou hudb-u], tak se tu

NEG-have-INF own-ACC.SG.F music-ACC.SG.F so REFL here
z-blázní-m!

PF-become.insane-1sG

'If I had not my music, I would become insane here.'

(Czech; Milotová 2012: 4)

A second piece of evidence comes from the fact that ICs can be headed by infinitives of causative verbs. An example is  $ud\check{e}lat$  'make' in (7) above. As causativity is commonly associated with the presence of the (non-deficient) head v (see, e. g., Marantz 1999), ICs must at least be vPs.

Furthermore, ICs can be negated. Standard assumptions link sentential negation to the presence of a functional NegP (see, e. g., Błaszczak 2009: 432). It follows that ICs are at least NegPs/PolPs.

Another crucial property of ICs is that they can contain overt Nom-subjects, hence involve the option of Nom-licensing. Examples above with Nom-subjects are (1), (4), (5), (6), (7), and (9b). Since it is the functional head T which is often considered the locus of Nom-licensing (see, e. g., Pesetsky & Torrego 2001), this speaks in favor of analyzing ICs as TPs. The analysis of ICs as TPs is corroborated by the fact that these structures come with a propositional interpretation. By standard assumptions, TP is the syntactic equivalent of a proposition.

A final fact to observe is that ICs can be paraphrased by full-fledged (finite) conditional clauses. This might be regarded as evidence that, much like conditional clauses, ICs are full CPs. But the paraphrasability with conditional clauses is a weak *syntactic* argument, as it merely restates the fact that ICs are *interpreted* as conditions (see §5). What is more, ICs never contain subjunctions or wh-pronouns. Due to these facts and the lack of substantial evidence for more syntactic structure, we analyze ICs as TPs.<sup>4</sup> Table 1 summarizes the preceding considerations.

<sup>&</sup>lt;sup>4</sup>We do not in principle exclude the possibility of a CP-layer in ICs. Under recent (phasal) assumptions, the C-head might be present but empty, submitting its features (and phase-hood) to T, thus effectively conflating with it. Under these assumptions, ICs would turn out as CPs and TPs at the same time.

	VP	νP	NegP	TP	СР
availability of objects	✓				
availability of causative verbs		✓			
availability of sentential negation			✓		
NOM-licensing and propositional interpretation				✓	
paraphrasability with conditional clauses					?

Table 1: Size of infinitival conditionals

## 3.2 External syntax

There are two questions immediately arising with respect to the external syntax of ICs, namely (i) how and where ICs are connected with the matrix clause, and (ii) how the position of ICs relative to the matrix – preposition vs. postposition – can be explained.

#### 3.2.1 Connection between ICs and the matrix

The general question here is how and where ICs attach to the matrix structure. Our starting point to answer this question is a comparison between ICs and other clause types in Czech.

A particular feature of Czech syntax is that (at least a subset of) adverbial clauses behave differently from relative clauses and subject clauses. More precisely, whereas relative and subject clauses act as the syntactic host for second-position clitics in the matrix clause (see Dokulil 1956; Fried 1994), adverbial clauses do not (see, a. o., Dokulil 1956: 109; Lenertová 2004: 150).

A subject clause example is cited in (12). It shows that the second-position clitic (in italics) is syntactically hosted by the subject clause (in square brackets):<sup>5</sup>

(12) [Že nikdo ne-protestova-l], ho ne-překvapi-l-o. that nobody.Nom Neg-protest-lpt-sg.m he.acc Neg-surprise-lpt-sg.n 'The fact that nobody spoke up against it did not surprise him.' (Czech; Fried 1994: 168)

An adverbial clause example is given in (13). The second-position clitic cannot be syntactically hosted by the adverbial clause. Instead, it has to occur in a posi-

<sup>&</sup>lt;sup>5</sup>Note that the direction of prosodic cliticization of Czech second-position clitics may change; see Toman (1996).

tion following a stressed constituent of the matrix clause (here: *odmlčel* '(he) fell silent'):

- (13) a. \* [Když domluvi-l], se odmlče-l. when finish-speaking-lpt-sg.м refl fall.silent-lpt-sg.м
  - b. [Když domluvi-l], odmlče-l se. when finish-speaking-lpt-sg.m fall.silent-lpt-sg.m refl 'When he had finished speaking, he fell silent.'

(Czech; Junghanns 2002: 130-131)

How do ICs behave with respect to second-position clitics in the matrix clause? The following data are based on example (6) above and reveal a parallel of ICs and adverbial clauses:

- (14) a. \* [Bý-t otec doma], by se to be-inf father.nom at.home cond.3sg refl this.nom.sg.n by-l-o ne-sta-l-o. be-lpt-sg.n neg-happen-lpt-sg.n
  - b. [Bý-t otec doma], by-l-o by se be-inf father.nom at.home be-lpt-sg.n cond.3sg refl to ne-sta-l-o. this.nom.sg.n neg-happen-lpt-sg.n 'If father had been at home, this would not have happened.'

(Czech; Svoboda 1960a: 65)

The contrast in (14) makes it clear that ICs are not like relative and subject clauses, but rather like adverbial clauses in that they do *not* syntactically host second-position clitics. This leads us to the conclusion that ICs adjoin clause-externally to the matrix CP projection; see the structure in (15):<sup>6</sup>

(15) [CP IC CP]

Given this CP-adjunction structure, the ungrammaticality of sentence (14a) with the second-position clitic immediately following the IC is due to the fact that

<sup>&</sup>lt;sup>6</sup>CP-adjunction is also proposed by Reis (1997: 138) for all "non-integrated" adverbial clauses in German, while Reis & Wöllstein (2010: 167 ff) argue for a CP-adjunction analysis to capture German V1-conditional clauses. More generally, Haegeman (2004: 71) claims all non-integrated adverbial clauses to be clause-external CP-adjuncts. On the other hand, integrated conditional clauses are usually analyzed as clause-internal TP- or νP/VP-adjuncts; see, a. o., Reis (1997: 138), Reis & Wöllstein (2010: 144–145, 168), and Bhatt & Pancheva (2006: 647).

the IC is a clause-external adjunct. Assuming that the (split or non-split) CP is the domain of second-position cliticization in Czech (see, a. o., Junghanns 2002; Lenertová 2004), the clause-external position of the IC renders it "invisible" to the second-position clitic in the matrix clause. The conclusion is that ICs cannot function as syntactic host for second-position clitics. However, the structure in (15) does not immediately capture data like (16) where the IC is apparently located within the matrix CP.

(16)Kdvž isme se tu by-l-i ziara projí-t Pauline. when be.1PL REFL here be-LPT-PL in-spring walk-INF with Pauline prohodi-l-a. ſže [ne-bý-t měl. vůbec by sem na remark-LPT-SG.F that NEG-be-INF me.GEN at-all COND.3SG here on smutn-é skál-v ne-doš-l-a], these.ACC.PL gloomy-ACC.PL rock-ACC.PL NEG-go-LPT-SG.F because není romantik iako iá. NEG.be.3sg romantic.NOM.sg.m like LNOM

'When we went for a walk here in spring with Pauline, she remarked that, if it had not been for me, she would not at all have climbed these gloomy rocks, since she is not a romantic like me.'

(Czech; Miloš Urban: *Přišla z moře*. Praha: Argo 2014, 178–179.)

Examples like (16) are likely to involve CP-doubling as depicted in (17) (see Kaspar 2016 on the relevant syntatic structure).<sup>8</sup>

(17) [CP že [CP IC CP]]

<sup>&</sup>lt;sup>7</sup>Further clause-external expressions that do not host second-position clitics in Czech are gerundive expressions, vocatives, and external topics (see, a. o., Dokulil 1956, Trávníček 1959, Junghanns 2002: 130–131).

<sup>&</sup>lt;sup>8</sup>Note that in (16) neither the IC nor the complementizer can function as a syntactic host for the second-position clitic *by* (which is hosted by *vůbec*). The CP-doubling analysis in (17) captures this because both the IC and the complementizer are clause-external relative to *by*. Iatridou & Kroch (1992) observe that CP-doubling occurs under non-negative, non-irreal bridge verbs only. A reviewer remarks that the former condition does not seem to be correct; see (i):

<sup>(</sup>i) Ne-vědě-l, že [ne-bý-t mě], vůbec by tu ne-by-l.

NEG-know-lpt.sg.m that NEG-be-inf me.gen at-all cond.3sg here NEG-be-lpt.sg.m

'He didn't know that, if it was not for me, he would not be here at all.'

### 3.2.2 Position of ICs relative to the matrix clause

If the CP-adjunction analysis in (15) is on the right track, we are faced with two competing theoretical options concerning the position(ing) of the IC – pre- or postposition – relative to the matrix clause:

- (i) There is only one base position for ICs: initial or final. This might be characterized as the "asymmetrical view" (see, a. o., Kayne 1994) according to which all phrasal structures are uniformly linearized. It follows that deviating surface orders must be derived.
- (ii) The initial and the final position of ICs are likewise base positions and thus syntactically on a par.
  This might be characterized as the "symmetrical view" (see, a. o., Chomsky 1986; 2004) according to which both left and right adjunction are equally permitted. It follows that statistically prevalent and/or marked orders must be explained by specific syntactic restrictions or so-called third factors.

As it does not require any derivations to take place, minimalist principles favor (ii). Assuming this, (18a) and (18b) are equally possible base positions of ICs:

Irrespective of which of these options is chosen, it is necessary to explain the empirical fact that ICs in initial position are more frequent than ICs in final position (see Svoboda 1960a: 74–75, Milotová 2011; 2012). A first hint to a possible answer comes from Svoboda (1960a: 75) who suggests that the position of ICs correlates with the theme/rheme (or information) structure of the relevant sentences. We build on his intuition, but will expand it: Indeed, the possible relative positions of ICs have to do with information structure, but information structure alone is not sufficient to explain the facts.

Our proposal is that a "third factor" needs to be considered, namely the logical structure underlying the relevant utterances; see (19). To put it more precisely: It is the relation between the underlying *logical structure* and the actual constituent order as following from *information structure* which determines if an IC is left-or right-adjoined to the matrix CP.

(19) condition 
$$\rightarrow$$
 consequence (logical structure)

According to Greenberg's universal 14, the conditional clause precedes the consequence clause (Greenberg 1963: 66). This is the normal order in conditional statements in all languages (see also Diessel 2001: 445–446). Given this, the default or unmarked surface order of statements with ICs is one where the surface ordering of IC and matrix clause iconically reflects the underlying logical structure; see (18a). The reverse ordering in (18b) is (relatively) more marked.

In order to explain the relation between logical structure and information structure, it is necessary to introduce at least basic information-structural concepts: Our theoretical framework in this respect is the "Leipzig model of information structure" (see, a. o., Junghanns & Zybatow 2009). According to this model, there are two coexisting, but not necessarily coextensive structures, namely the TOPIC/COMMENT and the FOCUS/BACKGROUND structure. Another crucial point to note in the current context is that (at least) two types of focus have to be distinguished, namely (a) NATURAL FOCUS and (b) CONTRASTIVE FOCUS. While constituents associated with (a) appear in sentence-final position, constituents associated with (b) show a particular intonational contour and may occupy any syntactic position.

With these few theoretical concepts, the following observations can be made with respect to conditional sentences containing ICs:

- Irrespective of its actual surface position in the sentence, the IC is *always* background material. This status is logically determined: Since conditions are logical premises, they correspond to background information in propositional utterances, viz. conditional clauses.
- Depending on the context, various information-structural analyses are possible for sentences with the "logically unmarked" ordering in (18a), i. e. with the IC in initial position.
- By contrast, the matrix CP is always contrastively focused in sentences showing the "marked" order in (18b), i. e. with the IC in final position; see (20a) and its information-structural analysis in (20b):<sup>9</sup>
- (20) a. Part-a by se rozpad-l-a, [ne-bý-t group-nom.sg.f cond.3sg refl fall-apart-lpt-sg.f neg-be-inf

<sup>&</sup>lt;sup>9</sup>It should be noted that contrastively focused constituents in sentence-initial position convey special emphasis as compared with contrastively focused constituents in other positions. This seems to be the reason why the initial positioning of contrastively focused constituents is the preferred strategy in spoken language.

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televiz-e].
television-gen.sg
'The group would (have) fall(en) apart, if there would not (have)
be(en) television.' (Czech; Milotová 2012: 4)
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b. Parta by se R/OZpadla, [nebýt televize]. CONTRASTIVE FOCUS BACKGROUND

Our conclusions concerning the relative position(ing) of ICs are as follows:

- ICs are right- or left-adjoined to the matrix CP projection, with neither of these possibilities being "more basic" than the other one (symmetrical view on adjunction).
- Right-adjoined ICs see (18b) are the (relatively more) marked option for two interrelated reasons:
  - (i) Conditional sentences with ICs in final position do not match with the logical structure underlying conditional utterances (anti-iconicity).
  - (ii) When the IC appears in sentence-final position, the matrix CP is always contrastively focused (information structure).

## 4 Nominative case licensing

A syntactic peculiarity of ICs is the availability of overt NOM-subjects. Not only for Slavic languages is this fact surprising, given the common view that there is a 1-to-1 correspondence between NOM-licensing and finiteness, where the latter term usually refers to clausal structures that exhibit both verb-subject agreement and a tense specification (see, e. g., Cowper 2002: 4).

Czech is a consistent *pro*-drop language, so – again by standard assumptions – the following biconditionals (should) hold:

(21) a. finite structure 
$$\leftrightarrow$$
 NOM  $\rightarrow$  pro or DP  
b. non-finite structure  $\leftrightarrow$  \*NOM  $\rightarrow$  PRO

However, the picture drawn is too simple as it cannot explain the licensing of overt NoM-subjects in Czech ICs. To find a possible solution, we discuss three potential theoretical alternatives in §4.1. Building on one of these alternatives, we will present our proposal in §4.2. Finally, we will discuss the conditions for NoM-licensing in Czech ICs in §4.3.

## 4.1 Theoretical possibilities

We can come up with three theoretical possibilities challenging the standard view on Nom-licensing mentioned in (21) so as to explain the availability of overt Nomsubjects in ICs.

#### 4.1.1 Finiteness in C

According to Kayne (1994), finiteness requires the incorporation of T[ense] into C[omp]. In a similar vein, recent minimalist theory (a. o., Chomsky 2007 or Richards 2007) assumes feature inheritance from C to T. Even more plainly, finiteness is analyzed as a part of the C-system in the cartographic framework of Rizzi (1997).

The assumptions just mentioned have in common that finiteness originates not in T, but in C. One theoretical advantage of this view is that the TP is furnished with finiteness "from outside", so that there is no necessity to directly connect finiteness or non-finiteness to respective morphological markers appearing on the verb in v/V. This, in turn, gives rise to the theoretical possibility for clauses headed by a non-finite verb to be finite.

Although the theory itself is quite appealing, it has one crucial disadvantage when applied to ICs: As discussed in §3.1, there is no empirical evidence that ICs comprise a CP-layer. Assuming the category of finiteness to originate in C would force one to stipulate the presence of a CP in ICs exclusively for theory-internal reasons. Since such an approach contradicts our general aim of keeping the body of assumptions as minimal as possible, other theoretical possibilities need to be taken into consideration.

#### 4.1.2 "UPro" in non-finite structures

Sundaresan (2014) and McFadden & Sundaresan (2018) observe that the standard theory of pronominal null subjects in non-finite structures faces severe empirical problems. They convincingly show that there are a number of unrelated languages that exhibit non-finite clauses with case-marked *pro*-subjects (as well as there are languages with finite clauses that have PRO-subjects). To account for these data, they propose that *pro* and PRO are based on one and the same lexical item – an underspecified null pronoun dubbed "UPro" –, the concrete realization of which is determined by its actual syntactic context.

<sup>&</sup>lt;sup>10</sup> Already Raposo (1987) argues for "infl-to-comp" movement.

Although the authors remain silent as regards case-licensing, their proposal allows for the possibility of NOM-licensing in non-finite clauses. Moreover, their theory is sufficiently restrictive in that NOM-licensing in non-finite environments can only take place under specific (syntactic) conditions, which effectively means that PRO remains the default type of subject pronouns in non-finite clauses.

Clearly, the crucial advantage of this approach lies in its flexibility concerning the distribution of null subject pronouns in (not only) non-finite structures. With respect to ICs, however, there is also at least one severe disadvantage, namely the unclear connection between the realization of either PRO, *pro*, or a full DP and the syntactic mechanism of case-licensing (since the cited authors pursue a derivational approach, they do not attribute the appearance of the elements in question to case-licensing at all). Moreover, the theory relates to null subject pronouns, leaving aside the possibility of overt DP subjects in non-finite structures, which is exactly what we find in Czech ICs. This is why, despite its obvious theoretical advantages and rich empirical coverage, the "UPro" theory cannot explain ICs with NOM-subjects, so a third theoretical option must be considered.

#### 4.1.3 Tensed non-finite structures

The final theoretical possibility to be discussed goes back to Stowell (1982; 1995) and Wurmbrand (2001). According to it, there is no 1-to-1 correspondence between NoM-licensing and finiteness as suggested in (21). The crucial proposal is that non-finite clauses are not necessarily untensed, but may be tensed (which is taken to be the prerequisite for the NOM to be licensed). In other words, being non-finite is not the same as being untensed, which gives rise to a much more flexible system as compared to standard assumptions.

To demonstrate this flexibility, we use the two features [AGR] ('agreement') and [TENSED] ('tensed') for a cross-classification; see Table 2.<sup>11</sup>

The prototypical constellations (at least in most Indo-European languages) are the classes (i) and (ii). While class (i) represents prototypical finite structures, class (ii) represents prototypical non-finite structures. Classes (i) and (ii) correspond to (21). We should also like to point out that class (ii) is likely to capture Czech ICs that do not contain an overt NOM-subject: Assuming syntax to be a parsimonious device, one would clearly state that, if there is no necessity for an

<sup>&</sup>lt;sup>11</sup>We prefer the feature [AGR] to [FIN] ('finite') because the grammatical concept of "finiteness" seems to be a conspiracy of two distinct properties, namely NON-/AGREEMENT (showing up on the verb) and UN-/TENSEDNESS (reflected in the non-/availability of a NOM-subject), rather than a single grammatical property.

Table 2: Classes of finiteness

	[AGR]	[TENSED]
(i)	✓	✓
(ii)		
(iii)	✓	
(iv)		✓

overt subject in an IC, NOM-licensing in terms of [TENSED] should not take place either, leaving a PRO-subject as the optimal choice.

However, two further options arise:

Class (iii) represents what might be called non-canonical (or apparent) finite structures. Since it does not immediately relate to our topic, we leave it to future empirical and theoretical research to find out whether or not structures of this kind exist.<sup>12</sup>

Finally, class (iv) represents what might be called non-canonical (or apparent) non-finite structure. This featural combination is of special importance for the present discussion, since it has the capacity to capture Czech ICs with an overt NOM-subject.

The overall advantage of this theoretical alternative is that, while the feature [AGR] relates to the inflectional morphology showing up on the verb form in v/V (which is always an infinitive in case of ICs), the feature [TENSED] relates to T. The two features are thus independent of one another (only for the two "prototypical" classes (i) and (ii) in Table 2 are they in "harmony").

We suspect that it is this splitting up of finiteness into two distinct grammatical properties – namely (i) being marked for agreement (verb form in v/V) and (ii) being tensed (functional head T) – which allows a consistent syntactic analysis of non-canonically behaving non-finite structures, among them Czech ICs with overt nom-subjects. Essentially, we argue that ICs are underspecified as concerns the feature [un/tensed] and can, hence, belong to two different classes shown among those in Table 2: class (ii) or class (iv).

<sup>&</sup>lt;sup>12</sup> Arguably, class (iii) captures Bulgarian non-finite *da*-clauses (see Krapova & Petkov 1999 for the proposal that Bulgarian *da*-clauses come in two varieties, [+T] or [-T]; see also Pitsch 2018). Here, Nom-licensing seems to be impossible despite the presence of a ("finite") verb agreeing in person and number with the (implicit) subject. It seems that this class is restricted to languages that lack an infinitive, hence do not explicitly mark non-finiteness (or, rather, non-agreement).

### 4.2 Proposal

Building on ideas by Stowell (1982; 1995) and Wurmbrand (2001) (see §4.1.3), we argue that the concept of finiteness is composed of two distinct grammatical properties, representable by the features [AGR] and [TENSED], respectively. Our specific claim with respect to Czech ICs is that, due to their being headed by an infinitive, these structures are always specified as lacking [AGR], but are variable as concerns the specification of T with or without [TENSED].

While this section concerns the technical details of our analysis, we will discuss the conditions under which T is (not) specified with [TENSED] in §4.3.

An adequate means to formalize our ideas is the twofold distinction between INTERPRETABILITY and VALUATION as proposed by Pesetsky & Torrego (2001). Accordingly, syntactic features can be interpretable or uninterpretable: Interpretable features are associated with semantic content and are thus relevant to interpretation, which is why they are transferred to the conceptual-intentional system. By contrast, uninterpretable features are purely formal and have to be deleted before spell-out. On the other hand, features of whatever grammatical category need a certain value. While some features come with a value, others need to be valued in the course of syntactic derivation. Crucially, interpretable features can only be sent to the interface(s) if they have (received) a value.

Above, we used two simple features, [AGR] and [TENSED]. In the framework just described, these features translate as follows into more complex features with a position for a value (in square brackets):

- [AGR] translates into  $\{i,u\}\Phi[\ ]$
- [Tensed] translates into  $\{i,u\}T[\ ]$

For our analysis, the functional head T, overt nom-subjects, PRO, and the infinitive in v/V are the relevant syntactic objects. <sup>13</sup> They have the following features:

1. Since it is the locus of semantic tense, the functional head T is equipped with an interpretable T-feature which can have one of two possible values, namely tensed or untensed. <sup>14</sup> On the other hand, the  $\Phi$ -features of T are uninterpretable and unvalued.

<sup>&</sup>lt;sup>13</sup>Our analysis implies that Czech ICs never contain *pro-subjects*.

<sup>&</sup>lt;sup>14</sup>In finite clauses, the T-value TENSED T is further specified as present, past, or future. By contrast, tensed ICs lack further specification due to the absence of a tense marker on the infinitive. It follows that the relative temporal orientation of ICs can only be inferred from the context.

- 2. Overt subjects have an uninterpretable T-feature, the morphological reflex of which is the NOM (see Pesetsky & Torrego 2001). Additionally, they enter syntax equipped with inherent interpretable and valued  $\Phi$ -features.
- 3. The null pronoun PRO bears an uninterpretable T-feature with the value UNTENSED (in other words, PRO has no case). As to  $\Phi$ -features, PRO enters syntax without any value only in the course of syntactic derivation is it supplied with values by its controller (usually a matrix argument).
- 4. The infinitive in  $\nu$ /V is equipped with an uninterpretable and unvalued T-feature. Its  $\Phi$ -features are uninterpretable and unvalued, too. <sup>15</sup> This means that the infinitive is completely void of grammatical information. Crucially, it does *not* inherently bear the T-value untensed, but is unspecified in this respect (the value is set in the course of derivation against the respective value of T). <sup>16</sup>

Table 3 gives an overview of the features of the relevant syntactic objects.

	T-feature	Φ-feature
T-head	iT[{tensed,untensed}]	uΦ[ ]
noм-subjects	uT[tensed]	$\mathrm{i}\Phi[\Phi]$
PRO	uT[untensed]	iΦ[ ]
infinitive (v/V)	uT[ ]	uΦ[ ]

Table 3: Syntactic features

From these assumptions it follows that Czech infinitives in ICs may either receive the value TENSED or UNTENSED. This in turn means that ICs come in two variants.<sup>17</sup> We give detailed analyses of both of them in the sections to follow.

<sup>&</sup>lt;sup>15</sup>T- and Φ-features of verb forms in  $\nu$ /V are generally uninterpretable, their interpretable counterparts being T and the subject, respectively. The basic idea behind this is that verbal inflectional morphology is but a formal (semantically vacuous) reflex of the semantically relevant features of T and the subject.

<sup>&</sup>lt;sup>16</sup>The unspecification of the Czech/Slovak infinitive with respect to its T-value seems to be the crucial difference as compared to infinitives of other (non-)Slavic languages that lack structures with infinitives and NOM-subjects.

<sup>&</sup>lt;sup>17</sup>A reviewer suggests that, unless there is good evidence for PRO, it seems easier to postulate only one, *tensed* structure for ICs (*pro*). We agree that the status of PRO is controversial, but the claim of *pro* in ICs without overt subjects strikes us as theoretically disadvantageous, because if such ICs are tensed and contain *pro*, this implies that potentially all non-finite structures are really tensed and contain *pro* − a rather bold claim. Moreover, untensed ICs with PRO comply with the economy principle, as they can be derived and interpreted with minimal effort.

#### 4.2.1 Non-finite ICs

The first possible variant of Czech ICs is untensed, hence the T-head involved enters syntax with the T-feature iT[untensed]. The infinitive in  $\nu$ /V then receives the same value. From the lack of tensedness, it follows that the subject can only be Pro. Pro receives  $\Phi$ -values (which are subsequently transmitted to T and  $\nu$ /V) from its controller. In (22), the line in (a) shows the situation as it is after basemerge, the line in (b) shows the relevant valuations, and the line in (c) shows the deletion of uninterpretable features before spell-out.

```
(22) a. [TP T_{iT[untensed],u\Phi[]} [v/VP PRO_{uT[untensed],i\Phi[]} v/V_{uT[]}]
b. [TP T_{iT[untensed],u\Phi[\Phi]} [v/VP PRO_{uT[untensed],i\Phi[\Phi]} v/V_{uT[untensed],u\Phi[\Phi]}]
c. [TP T_{iT[untensed],u\Phi[\Phi]} [v/VP PRO_{uT[untensed],i\Phi[\Phi]} v/V_{uT[untensed],u\Phi[\Phi]}]
```

#### 4.2.2 Finite ICs

The second possible variant of ICs is tensed, hence the T-head involved enters syntax with the T-feature iT[TENSED]. <sup>18</sup> The infinitive in  $\nu$ /V then receives the same value. The presence of a tense specification licenses the NOM on the subject (the subject's  $\Phi$ -features subsequently value the  $\Phi$ -features of T and  $\nu$ /V). At the surface, the tensedness of this type of ICs is reflected by the morphological NOM-marking of the subject, see (23):

```
(23) a. [TP T_{iT[TENSED],u\Phi[]} [\nu/VP DP_{uT[TENSED],i\Phi[\Phi]} \nu/V_{uT[]} ]u\Phi[]]
b. [TP T_{iT[TENSED],u\Phi[\Phi]} [\nu/VP DP_{uT[TENSED],i\Phi[\Phi]} \nu/V_{uT[TENSED],u\Phi[\Phi]}]]
c. [TP T_{iT[TENSED],u\Phi[\Phi]} [\nu/VP DP_{uT[TENSED],i\Phi[\Phi]} \nu/V_{uT[TENSED],u\Phi[\Phi]}]]
```

## 4.3 Conditions for NOM-licensing in ICs

This section concerns the conditions that require ICs to be tensed, hence under which NOM-licensing in ICs takes place (see §4.2.2).

<sup>&</sup>lt;sup>18</sup>A reviewer asks what it means interpretationally for a T to be tensed, and suggests that tensed T's might be not (as) dependable in their interpretation on the matrix T. Krapova & Petkov (1999) tackle this issue wrt. Bulgarian *da*-clauses which seem to come in two varieties, tensed and untensed, thus resembling ICs. However, *da*-clauses are not restricted to conditionals, but occur in many contexts, which allows linguistic tests to reveal differences between their variants. The conditional interpretation of ICs excludes such tests. As an example, it is impossible to use different temporal adverbials in the IC and the main clause, since conditionals imply a temporal order that cannot be altered. Hence our belief that the un/tensedness of ICs only shows in the un/availability of an overt NOM-subject.

Two different scenarios – (a) and (b) – have to be distinguished. They can be characterized by two criteria:

- (i) Is the subject of the IC overt or null?
- (ii) Are the subjects in the compound conditional sentence in coreference or in disjoint reference?

### (a) Null subject, coreference

In this scenario, derivational economy forces the insertion of PRO, as it does not require NOM-licensing and automatically yields coreference with the matrix subject; see (24):

(24) [PRO $_i$  Ne-mí-t sv-ou hudb-u], tak se tu NEG-have-INF own-ACC.SG.F music-ACC.SG.F so REFL here  $pro_i$  z-blázní-m! PF-become.insane-1SG 'If I had not my music, I would become insane here.'

## (b) Overt subject, coreference or disjoint reference

In this scenario, T has to bear the feature iT[TENSED] to license the NOM on the subject; see (25):

(25) [Bý-t otec $_j$  doma], by-l-o by se be-INF father.nom at.home be-LPT-sg.n cond.3sg refl to $_i$  ne-sta-l-o. this.nom.sg.n neg-happen-lpt-sg.n 'If father had been at home, this would not have happened.'

Note that in (25), the subject is background material. However, subjects may also be contrastively focused. If so, they typically occur in clause-initial position as illustrated by (26):

(26) [Otec $_j$  bý-t doma], by-l-o by se father.nom be-inf at.home be-lpt-sg.n cond.3sg refl to $_i$  ne-sta-l-o. this.nom.sg.n neg-happen-lpt-sg.n 'If F/ATHER had been at home, this would not have happened.'

A special subcase of this scenario involves overt subject pronouns, since these, in Czech, are always contrastively focused (as opposed to non-emphatic null pronouns); see (27a) illustrating coreference and (27b) illustrating disjoint reference:

(27) a.  $[J\acute{a}_i$  bý-t váš syn], tak se  $pro_i$  I.NOM be-INF your.NOM.SG.M SON.NOM.SG.M SO REFL ne-žení-m.

NEG-marry-1SG 'If /I were your son, I would not marry.'

(Czech; Milotová 2012: 12)

b. [Já $_j$  bý-t doma], by-l-o by se I.NOM be-INF at.home be-LPT-SG.N COND.3SG REFL to $_i$  ne-sta-l-o. this.NOM.SG.N NEG-happen-LPT-SG.N 'If /I had been at home, this would not have happened.'

The following generalizations can be made:

- 1. If the subject of the IC is contrastively focused, it has to be overt, so the NOM must be licensed and T has to be equipped with iT[TENSED]; see (27a). 19
- 2. If the subject of the IC is not contrastively focused, PRO is sufficient and the NOM does not need to be licensed, hence T can enter syntax with iT[UNTENSED]; see (24).
- 3. Irrespective of being contrastively focused or not, the subject of the IC has to be overt in case its referent is not identifiable from the matrix clause or the preceding context. If so, the IC must be tensed for the subject to be overtly realized; see (25).

It should be noted that the coreference/disjoint reference-criterion is merely an epiphenomenon. The primary criteria are (i) identifiability and/or (ii) contrastive focussing of the subject of the IC.

<sup>&</sup>lt;sup>19</sup>See Szabolcsi (2009) for similar data from Hungarian. The relevance of contrastive focus is also mentioned by McFadden & Sundaresan (2018: 513).

## 5 Interpretation

A crucial question with respect to ICs relates to interpretation: How does the conditional interpretation of the compound sentence arise? There are two competing theoretical possibilities:

- The compositional view:<sup>20</sup>
   Sentences with ICs contain a covert operator that induces the conditional interpretation.
- 2. The pragmatic view:<sup>21</sup> The conditional interpretation arises due to specific lexical and grammatical triggers, the context, and/or world knowledge.

The facts speak in favor of the second – pragmatic – view (see also Milotová 2011; 2012). First, ICs cannot be used in isolation to answer a question about the condition on the realization of a situation; see (28a) and (28b) for the question and answer, respectively:

- (28) a. Pod jak-ou podmínk-ou by se to under which-ins.sg condition-ins.sg cond.3sg refl this.nom.sg.n by-l-o ne-sta-l-o?
  be-lpt-sg.n neg-happen-lpt-sg.n
  'Under what condition would this not have happened?'
  - b. \* Otec bý-t doma. father.nom.sg be-inf at.home intended: 'If father had been at home.'

The reason for this exclusion is that ICs lack an "unambiguous relation marking" ("eindeutige Bezugskennzeichnung"; Reis 1997: 135), i. e. a conditional subjunction.

Second, it is generally possible to identify specific signals in the matrix clause that trigger the irreal, viz. conditional interpretation: (i) irrealis/conditional periphrasis; (ii) (realis/indicative) modal verbs (e.g. *moci* 'can'); (iii) (inherently future-oriented) perfective aspect; see (5); (iv) lexical signals, e.g. *tak* 'so' in (27a),

<sup>&</sup>lt;sup>20</sup>See, e.g., the account of conditionals proposed by Kratzer (1979; 1986; 1991). Accordingly, even so-called bare conditionals (without explicit modal operators) contain silent modal (necessity) operators.

<sup>&</sup>lt;sup>21</sup>See the analyses of Stalnaker (1975); Byrne & Johnson-Laird (2010); Elder & Jaszczolt (2016). Elder & Jaszczolt (2016: 41) give an overview of existing pragmatic analyses of conditionals.

ted' 'now' (with past tense) in (29); (v) context; see (30); (vi) world knowledge; see (31).

- (29) [Ne-bý-t věc-í, isem zbytečně S nimi-ž NEG-be-INF thing-GEN.PL with which.INS.PL-REL be.1sG pointlessly jsem teď před z-tráce-l časl. stá-l PF-lose-LPT-SG.M time.ACC.SG stand-LPT-SG.M be.1SG now in.front.of vládc-em ruler-INS.SG 'If there had not been things with which I pointlessly spent my time, I would now be standing in front of the ruler.' (Czech: Milotová 2012: 5)
- (30)...kdy jsem tu přenocova-l, však to when be.1sg here stay.overnight-LPT-sg.m this.nom.sg.n however opravdu jen ojediněl-é, protože to be-LPT-SG.N really only sporadical-nom.sg.n because this.nom.sg.n ne-stá-l-o za t-u rozmrzelost NEG-be worth-LPT-SG.N for this-ACC.SG.F moroseness.ACC.SG.F. manželk-y. [Ne-bý-t jí], nocova-l wife-gen.sg Neg-be-inf she.gen stay.the.night-lpt-sg.m be.1sg at určitě častěji. cottage-Loc.sg surely more.often "...when I stayed overnight here, this, however, happened really only sporadically, since it was not worth my wife's moroseness. If it had not been for her, I surely would have spent the night in the cottage more frequently.' (Czech; Milotová 2012: 5)
- (31) [Ne-bý-t Clintonov-y administrativ-y], ne-jsme v NEG-be-INF Clinton's-GEN.SG.F administration-GEN.SG.F NEG-be-IPL in NATO.

  NATO

  'If it had not been for the Clinton administration, we would not be in the NATO.' (Czech; Milotová 2012: 5)

## 6 Summary

The present investigation allows the following conclusions concerning Czech ICs:

#### Semantically,

- ICs express conditions without explicit marking as conditional clauses;
- ICs yield their interpretation pragmatically through specific grammatical and lexical signals in the matrix clause (irrealis/conditional periphrasis, modal verbs, temporal adverbs, etc.), the context, and/or world knowledge.

### Regarding their use,

• ICs are highly marked, expressive, and context-dependent expressions in Czech, which is why they refer to specific situations only.

### Syntactically,

- ICs are (at least) TPs;
- ICs can be tensed (NOM-subject) or untensed (PRO), depending on whether
  or not their subject is identifiable from the context and/or contrastively
  focused:
- ICs are clause-external adjuncts to the matrix CP.

#### From a typological point of view,

- ICs have cross-linguistic parallels, see (2) from Tamil;
- Czech and Slovak are the only Slavic languages that exhibit such structures; for Slovak facts see Ružička (1956) and Hirschová (2005).

A possible explanation for the latter fact is that the Czech (and Slovak) infinitive is lexically unvalued with respect to its T- and  $\Phi$ -features, so (i) it is not restricted to untensed clauses, but may also occur in tensed clauses, and (ii) it can "invisibly agree" with a nom-subject. The infinitive in other Slavic languages is perhaps more restricted.

Taken all together, these insights reveal that ICs are no "construction", but arise through syntactic structure building and are interpreted pragmatically.

### **Abbreviations**

1,2,3	first, second, third person	LPT	<i>l</i> -participle
ACC	accusative case	M	masculine
AUX	auxiliary	N	neuter
COND	conditional	NEG	negation
DAT	dative case	NOM	nominative case
F	feminine	PF	perfective aspect
GEN	genitive case	PL	plural
IC	infinitival conditional	PST	past tense
INF	infinitive	REFL	reflexive
INS	instrumental case	REL	relative
LOC	locative case	SG	singular

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