

EPISTEMIC FUTURE IN SPANISH AND CZECH

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Cuvinte-cheie: viitor epistemic, evidențialitate, aspect, Aktionsart, inferență.
Keywords: epistemic future, evidentiality, aspect, Aktionsart, inference.

INTRODUCTION

The nature and mutual relationship of the categories of tense, aspect, Aktionsart (or internal aspect), modality and evidentiality are among the most studied linguistics topics. Nevertheless, the relationship between the category of aspect/Aktionsart and the category of evidentiality/epistemic modality remains probably the least studied to date. Although in many languages both meanings are often expressed cumulatively in the same morpheme, the mutual overlaps and systemic relationships between these two areas remain unclear, as observed by Forker, who claims that “although evidential constructions in individual languages are often restricted to one or the other aspectual value, it remains a task for future research to establish whether there are really typologically valid tendencies for specific combinations as opposed to others” (Forker 2018: 70–71).

In this paper, we analyse a specific type of construction: the epistemic-inferential uses of the future tense forms that can be found in many languages. We focus on Spanish and Czech, which display several systemic similarities in this area, and both allow the dislocated use of a future tense to express the speaker’s supposition and inference. We pay special attention to the relationship between the epistemic-inferential interpretation and the Aktionsarten and aspectual characteristics of the analysed construction. In this respect, a comparison between Spanish and Czech proves to be of interest since these categories display several differences in these two languages. Throughout this paper, we will distinguish between the terms *Aktionsart* and *aspect* in the following manner. We associate Aktionsart with tempo-qualitative characteristics resulting from the semantics of a verb (mainly telicity). The term aspect covers both the traditional opposition perfectivity/imperfectivity and other tempo-qualitative characteristics of a process,

SCL, LXXII, 2021, nr. 1, București, p. 3–19

which are expressed lexically through a prefix or a periphrasis but do not result directly from the semantics (mainly progressivity)¹.

In Spanish, the aspectual opposition between perfective and imperfective is reduced to past tenses. However, a broad set of verbal periphrases can express semi-aspectual categories, such as iterativity, inchoateness or progressivity. In recent studies, a relationship between progressivity and epistemic reading of future tense has been observed (Jaque Hidalgo 2016). In Czech, (im)perfectivity is expressed through all verbal forms and is inherently related to the expression of posteriority (perfective verbs do not have a future form, see Section 2 for a detailed discussion), thus also reducing the potential to form epistemic future. The Czech language does not display any systemic tool to express progressivity.

This study aims to present the epistemic-evidential uses of the future tense in light of these structural differences. The paper is organised as follows. In Section 1, we summarise the temporal and epistemic-evidential uses of the Spanish future tense (or the *cantaré* form). Section 2 focuses on futurity in Czech. In Section 3, we present the relationship between epistemic future and the categories of aspect/Aktionsart. In Section 4, we analyse the Czech respondents² of the Spanish epistemic-inferential uses of *cantaré*. Section 5 presents the conclusions.

1. Future tense in Spanish

1.1. Futurity in Spanish

Tense forms in Spanish (*canto*, *cantaré*, *canté* etc.) are given various labels, which are sometimes misleading. The crucial reason why terms such as *futuro imperfecto* ('imperfect future') or *futuro simple* ('simple future') are problematic is that different forms can have similar tense values, and one single form can have different tense values in different contexts. A useful classification of the temporal relationships in the Spanish verbal system is proposed by Rojo and Veiga (Rojo 1974; Veiga 1991; Rojo and Veiga 1999), who characterise tense forms through vectors (V), indicating the temporal point at which the event occurs in relation to a reference point. This is called the origin (O). The three primary tense vectors are:

O o V: the event described by the verb and the origin are simultaneous, e.g. *canto* ('I sing').

¹ The discussion relating to all the differences between the categories of Aktionsart, aspect (and also the category of manner of action) is a complex topic that exceeds the scope of this work, especially given the fact that the Slavonic and Romance tradition apprehend these notions differently; for an extended discussion, refer to Rojo (1990), Pawlak (2008), Pešková (2018) and Kratochvílová et al. (2020).

² When talking about concrete translations, we prefer the term *respondents* to the term *equivalent* since our analysis scope is precisely to determine to which extent a Czech translation type of the Spanish epistemic future captures the meaning of the original. For a similar use of the term, refer to Čermák et al. (2020).

O – V: the verb describes something previous to the origin, e.g. *canté* ('I sung').

O + V: the verb describes something subsequent to the origin, e.g. *cantaré* ('I will sing')³.

In the indicative⁴, the notion of posteriority, i.e. O + V, can be expressed through different verbal paradigms:

a) The *cantaré* paradigm; traditionally called *futuro simple*, e.g. *Hablaré*_{speak-CANTARÉ.1SG} *con*_{with} *María cuando*_{when} *llegue*_{arrive-PRS.SBJV.1SG} ('I will speak with María when she arrives').

b) The *voy a cantar* paradigm; this form is originally a periphrastic construction, comparable to the English *I am going to*, e.g. *Voy a hablar*_{speak-VOY.A.CANTAR.1SG} *con*_{with} *María cuando*_{when} *llegue*_{arrive-PRS.SBJV.1SG} ('I am going to speak with María when she arrives').

c) The *canto* paradigm; traditionally called the present tense, which, nevertheless displays several uses that are prospective, especially when the event in the future is presented as certain and planned, e.g. *Mañana*_{tomorrow} *estoy*_{be-CANTO.1SG} *en*_{in} *Madrid* ('I am in Madrid tomorrow'); for a detailed analysis, see Kratochvílová (2018a).

Since neither b) nor c) present epistemic readings, we shall focus solely on the synthetic future form, i.e. the *cantaré* paradigm. *Cantaré* is a merged form from a previous periphrastic construction (*cantare habeo* = 'I must sing' → *cantaré* = 'I will sing'). The temporal use of *cantaré* is equivalent to other Romance languages' simple futures, for a detailed analysis, refer to Sobczak (2020).

The *cantaré* paradigm can acquire several meanings. Apart from the strictly prospective meaning, its modal-evidential readings range from epistemic inference to concession, dubitation or mirativity. A detailed analysis of all uses of *cantaré* is provided by Kratochvílová (2019). In this paper, we focus solely on epistemic-inferential uses, which have their respective counterparts in Czech.

1.2. Epistemic-inferential use of *cantaré*

In the framework created by Rojo and Veiga, the epistemic interpretation of *cantaré* appears among other systematic epistemic uses of the Spanish verbal forms, i.e. the subjunctive forms *cante* and the conditional or potential forms *cantaría*. Rojo and Veiga describe the epistemic value of *cantaré* as 'dislocated' uses. A dislocation occurs when a verbal form does not express its initial tense value ('straight use') and acquires a new non-tense value. In this case, the prediction regarding the future development of a process changes into a

³ There are more complex vectors: the temporal vector of *cantaba* ('I was singing'), for instance, is '(O – V) o V'. For a full explanation of this annotation system, refer to Rojo (1974).

⁴ The description of the subjunctive temporal relationships exceeds the scope of this paper; for a detailed description, refer to Rojo (1974).

supposition regarding the most probable state-of-affairs. The dislocation can be resumed as shown in Table 1:

Table 1

Straight and dislocated use of *cantaré*.

Straight use of <i>cantaré</i> (O + V):	Dislocated use of <i>cantaré</i> (O o V):
Mañana _{tomorrow} será _{be-CANTARÉ.3SG} la _{DEF.ART} fiesta _{party} (‘The party will be tomorrow’)	En _{in} este _{this} momento _{moment} serán _{be-CANTARÉ.3PL} las _{DEF.ART} diez _{ten} (= En _{in} este _{this} momento _{moment} son _{be-PRS.3PL} probablemente _{probably} las _{DEF.ART} diez _{ten}) (‘It must be ten o’clock now’) (= ‘It is probably ten o’clock now’)

While the term “epistemic use” might lead to the conclusion that dislocated uses of *cantaré* are purely modal, their evidential value has also been widely discussed (see, for example, Escandell Vidal 2014; Rivero 2014; Rodríguez Rosique 2019). We claim that epistemic uses of *cantaré* present an example of a combination of modality and evidentiality. The modal element lies in the supposition made by the speaker. The evidential element relates to the inferential value of these uses. The speaker formulates the utterance *En este momento serán las diez* when some elements of the communication situation in which he/she finds him/herself lead to this conclusion (for instance, it is already dark, and many people are coming to see a performance starting at ten o’clock). In Kratochvílová (2019), it is argued that the main feature that distinguishes epistemic uses of *cantaré* from the purely prospective ones is the disappearance of a prospective orientation and the increasing importance of the role of the speaker’s reasoning, which is based on the elements of the communication situation that must be accessible to the speaker. The speaker’s reasoning (i.e. his/her thinking and the struggle to draw a plausible conclusion) is associated with epistemic modality, if we conceive it as a category based on the speaker’s standpoint and his/her (un)certainly. On the other hand, the communication situation itself and its elements can be related to evidentiality, if conceived as a category related to the source or accessibility of information. Hereafter, we will use the term epistemic-inferential uses of *cantaré*.

2. Future tense in Czech

2.1. Futurity in Czech

From the point of view of tempo-aspectual categories, the Czech verbal system is comparable to the widely discussed Russian system (see Comrie 1976). Except for a limited set of verbs that can be considered neutral in terms of their aspect⁵, all Czech verbs inherently express either perfective or imperfective aspect.

⁵ Generally, these verbs are of foreign origin, Štícha et al. (2013: 450) mention only twelve original Czech verbs that do not clearly express their aspect.

This opposition is generally expressed through prefixes: *zpívat* – ‘to sing_{IPFV}’ or ‘to be singing’ vs. *zazpívat* – ‘to sing_{PFV}’ (depending on the context, *zazpívat* can mean ‘to sing just one song’ or ‘to sing several songs and then finish singing’).

The category of aspect is also crucial for the expression of futurity. All imperfective verbs have both a present and a future form. On the other hand, perfective verbs have only the present tense form, which inherently points towards the future. For instance, the present tense first person singular form of *zazpívat* is *zazpívám*, which interprets as ‘I am about to/ I will sing (one song or a limited number of songs)’.

Consequently, in the Czech language, the vector O + V (as presented in Section 1.1) can only be expressed by imperfective verbs. When analysing the future forms of these verbs, Karlík (2017) distinguishes the following categories:

a) Suppletive forms: The only Czech verb with a suppletive form for the expression of the future tense is the verb *být* (‘to be’): *budu* (‘I will be’), *budeš* (‘you_{SG.INFORM} will be’), *bude* (‘he/she/it will be’), *budeme* (‘we will be’), *budete* (‘you_{SG.FORM.PL} will be’), *budou* (‘they will be’). Herein, we will refer to these forms as the *budu* paradigm.

b) Analytic expression: The future tense of most imperfective verbs is formed by the inflected form of the verb *být* in the future tense, which functions as an auxiliary, and the infinitive of the fully semantic imperfective verb: *zpívat* (‘to sing_{IPFV.INF}’), *budu zpívat* (‘I will sing_{IPFV}’), *budeš zpívat* (‘you_{SG.INFORM} will sing_{IPFV}’)... Henceforth, we will refer to these forms as the *budu zpívat* paradigm.

c) Synthetic expression: A limited set of imperfective verbs (mostly verbs of movement) form the future tense through the prefix *po-*: *letím* (‘I fly_{PRS.IPFV}’), *poletím* (‘I will fly_{IPFV}’). Since these forms do not allow the epistemic-inferential interpretation, they will not be further discussed.

2.2. Epistemic-inferential use of *budu* (*zpívat*)

Karlík (2017) observes that with many uses of the imperfective future tense, the process expressed through a future-tense verbal form may have already started, and it can take place in the moment of speech⁶. He consequently defines the function of the *budu* (*zpívat*) paradigm in these cases in terms of a prognostic mood rather than future tense. Karlík associates the prognostic characteristics of *budu* (*zpívat*) with the possible dislocation of this paradigm into an epistemic interpretation relating to the present. Štícha et al. (2013: 781) describe these uses of *budu* (*zpívat*) as a grammatical means for expressing probability and a medium level of certainty of the speaker. We claim that these uses display the same

⁶ Karlík (2017) mentions the example of *Budu_{BUDU.1SG} psát_{write} ten_{that} dopis_{letter} dlouho_{long}* (‘It will take me a long time to write the letter’, literally: ‘I will write_{IPFV} the letter for a long time’).

characteristics as the epistemic-inferential uses of *cantaré* as described in Section 1.2. The dislocation can thus be represented similarly, see Table 2:

Table 2

Straight and dislocated use of *budu (zpívat)*.

Straight use of <i>budu (zpívat)</i> (O + V):	Dislocated use of <i>budu (zpívat)</i> (O o V):
Zít _{tomorrow} bude _{be-BUDU.3SG} oslav _a _{party} ('The party will be tomorrow')	Ted' _{now} bude _{be-BUDU.3SG} deset _{ten} hodin _{hours} (=Ted' _{now} je _{be-PRS.3SG} pravděpodobně _{probably} deset _{ten} hodin _{hours}) ('It must be ten o'clock now') (= 'It is probably ten o'clock now')

3. Aspectual and Aktionsarten characteristics of epistemic-inferential future

The foregoing may lead us to conclude that any verb in the *cantaré* or (*budu*) *zpívat* paradigm is likely to be used in an epistemic-inferential sense, although this is not always possible. RAE (2009: 1771) considers that the epistemic-inferential use of *cantaré* is only possible with atelic verbs. Other works point out that the possibility of epistemic-inferential interpretations is linked to stative verbs rather than simply atelic ones (Gennari 2002; Soto 2008; Jaque Hidalgo 2016). Our aim in this paper is to compare the uses of the epistemic-inferential future in Spanish and Czech. Discussions about the exact conditions required for its use (only stative predicates or stative and atelic dynamic predicates) are beyond the scope of this paper. From the opinions expressed in the cited works, it can be inferred that telicity is the most important barrier to using this form. Therefore, the term 'non-telic' (rather than 'atelic') will be used hereafter.

Regarding the epistemic-inferential uses of *cantaré*, the category of progressivity becomes particularly relevant. Following Comrie (1976), we understand progressivity as a subtype of the imperfective aspect. In Spanish, progressivity is expressed through a commonly used periphrastic construction formed by the semi-auxiliary verb *estar* ('to be') and the gerund of a fully semantic verb. The periphrasis is comparable to the English construction *be* + verb in *-ing* form (*estoy_{be-PRS.1SG} cantando_{sing-GER}* = 'I am singing'). Jaque Hidalgo (2016: 133–134) mentions an interesting contrast between *Juan estar_{be} corriendo_{be.running-CANTARÉ.3SG} por_{in} el_{DEF.ART} parque_{park}* ('Juan must be running (lit. 'will be running') in the park') and *Juan correrá_{run-CANTARÉ.3SG} por_{in} el_{DEF.ART} parque_{park}* ('Juan will run in the park'). While the first sentence can acquire the epistemic-inferential interpretation, the second rejects this reading. According to Jaque Hidalgo, the progressive form of *estará corriendo* gives the verb a stative meaning, whereas the simple form *correrá* forces us to see it as an event and to understand it only in temporal terms. This observation points to a more complex relationship between the category of aspect and the construction under scrutiny (to be further discussed in Section 4).

The relationship between epistemic-inferential uses of the Czech *budu (zpívát)* paradigm and the category of Aktionsart is less clear than in Spanish. Given that almost all Czech verbs inherently express (im)perfectivity, telicity is analysed as closely related to the verbal aspect. The correlation between telic/perfective and non-telic/imperfective is almost absolute, which results in many authors not distinguishing between these two categories. For a detailed bibliography and extensive discussion regarding this topic, see Biskup (2017). To our knowledge, the purely Aktionsarten characteristics of the epistemic-inferential uses of *budu (zpívát)* (with no reference to the problematics of aspect) have not been extensively studied.

Aspectual characteristics other than (im)perfectivity are expressed lexically in Czech or they result from the affix that is also the bearer of (im)perfectivity. For instance, another perfective variant of the verb *zpívát* is *dozpívát*, which means ‘to finish/stop singing’. The prefix *do-* expresses both perfectivity and the (semi)aspectual notion of terminating a process. The set of Czech aspectual prefixes is vast: the verb *zpívát* could also combine with other prefixes, for instance, *přezpívát* (‘to sing one song without pauses’, to be used in a context such as *She sung her complete repertoire for us*), *nazpívát* (‘to sing/record a concrete amount of songs’, to be used in a context such as *He recorded ten new songs for his new album*), *odzpívát* (‘to sing and to finish singing a concrete amount of songs that I was supposed to sing’, to be used in a context such as *All the song contest participants have sung their songs*). However, these prefixes are associated with perfectivity, and Czech does not possess any systemic tool resembling the Spanish progressive construction *estar + gerund*. For an extended discussion, see Pešková (2018) and Kratochvílová et al. (2020).

In Section 4, we analyse whether this means that the future tense of any imperfective (thus non-telic) Czech verb is likely to receive an epistemic-inferential interpretation and whether the progressive aspect expressed through periphrastic construction in Spanish is reflected in the Czech translations.

4. Contrastive corpus analysis

4.1. Aim of the analysis and method

This section presents a contrastive analysis of the epistemic-inferential uses of the future tense in Spanish and Czech. The data for the analysis comes from the InterCorp corpus (<https://intercorp.korpus.cz>). InterCorp is a parallel corpus created at the Faculty of Arts of Charles University and is primarily intended for analysing how a grammatical construction, a word or an idiom translates into another language. However, given the advanced query tools and the significant amount of text that forms part of it, it can also be used for monolingual studies. For a detailed description of the corpus and the possibilities of its exploitation, refer to Čermák and Rosen (2012) and Nádvorníková (2016). For an extensive comparison between

Romance languages and Czech based on this corpus, see Čermák and Nádvořníková et al. (2015) and Čermák et al. (2020).

Literary texts and their official translations form the so-called *core* of the InterCorp corpus⁷. We worked with Version 12 (accessible since December 2019), which provides texts in 40 languages. Czech is the pivotal language, meaning that each text in the core has a Czech counterpart (either the original, in the case of Czech texts translated into other languages, or the official translation in the case of originals from other languages). We used the core version of the Spanish part of the InterCorp corpus (Čermák and Vavřín 2019) consisting of a total of 139,208,313 tokens. However, in this dataset, both the Spanish originals and the Spanish translations from other languages were included. As our main goal was to compare direct Czech respondents of the Spanish epistemic-inferential uses of *cantaré*, we worked with a smaller subcorpus formed solely by Spanish originals and their direct Czech translations. This subcorpus contained a total of 12,225,677 tokens (Spanish and Hispano-American fiction; 134 books by 52 authors in total).

We looked for the epistemic-inferential uses of *cantaré* using the following query: [!word="¿" |tag="INT"] [word=".*rá.*|. *ré.*|. *remos"&tag="V.*"]. The resulting concordance contained a total of 30,880 appearances. After applying the shuffle function to sort them randomly, we manually analysed 3,602 to find 100 cases where *cantaré* had the epistemic-inferential interpretation. Consequently, we created a typology of Czech translations. We considered the Czech verbal form used to translate the Spanish epistemic-inferential *cantaré*. We also looked for any lexical expression of epistemic modality, location or temporal orientation that could help the Czech reader interpret the modal-temporal meaning. In this way, we were able to identify the following respondent types:

(1) *cantaré* → bare *budu* (*zpívát*)

Será_{be-CANTARÉ.3SG} otra_{another} de_{of} sus_{his} fantasías_{fantasies}.
To_{it} bude_{be-BUDU.3SG} další_{another} z_{of} jeho_{his} fantazií_{fantasies}.
'It must be (literally: will be) another of his fantasies.'⁸

(2) *cantaré* → *budu* (*zpívát*) + epistemic particle/verb

¡Será_{be-CANTARÉ.3SG} su_{her} confesor_{confessor}! – 'It must be (literally: will be) her confessor!'
V_{in} tom_{it} bude_{be-BUDU.3SG} asi_{probably} její_{her} zpovědník_{confessor}. – 'It must be (literally: will be) probably her confessor.'⁹

⁷ The corpus also contains different types of texts, such as movie subtitles, proceedings of the European Parliament and newspaper texts in different languages. Nevertheless, given that with the non-core subcorpora it is impossible to determine the source language of the text or the direction of the translation, these were not used in our analysis.

⁸ ÚČNK – InterCorp. Juan Marsé, *Rabos de lagartija (Ještěří ocásky)*, Czech transl. Marie Jungmannová, English translations and glosses by the authors.

⁹ ÚČNK – InterCorp. Miguel de Unamuno, *Abel Sánchez (Ábel Sánchez)*, Czech transl. Jana Zuluotová-Cahová, English translations and glosses by the authors.

(3) *cantaré* → *budu* (*zpívát*) + locative/temporal adverb

Todo_{everything} **estará**_{be-CANTARÉ.3SG} revuelto_{upside.down} [...]. – ‘Everything **must be (literally: will be)** upside down [...].’

Bude_{be-BUDU.3SG} **tam**_{there} hrozný_{horrible} nepořádek_{mess} [...]. – ‘It **must be (literally: will be)** horribly messy there [...].’¹⁰

(4) *cantaré* → *present tense* + epistemic particle

Tendrá_{have-CANTARÉ.YOU.FORM} usted_{you-FORM} una_{INDF.ART} llave_{key} de_{of} la_{DEF.ART} puerta_{door} principal_{main}. – ‘You **must have (literally: will have)** the main door key.’

Snad_{perhaps} **máte**_{have-PRS.YOU.FORM} klíč_{key} od_{of} hlavního_{main} vchodu_{entrance}. – ‘You **must surely have (literally: will surely have)** the main entrance key.’¹¹

(5) *cantaré* → bare present tense (no explicit expression of epistemic modality or inference)

Se_{REFL} lo_{him} **estarán**_{be-CANTARÉ.3PL} comiendo_{eating} a_{at} poquitos_{small.pieces} [...]. – ‘They **must be (literally: will be)** eating him bite by bite.’

Žerou_{eat-PRS.3PL} ho_{him} pomaloučku_{slowly} [...]. ‘They **are** eating him slowly.’¹²

(6) *cantaré* → *conditional*

Pensarán_{think-CANTARÉ.3PL} que_{that} estoy_{be-PRS.1SG} loco_{crazy} [...]. – ‘They **must think (literally: will think)** that I am crazy.’

Mysleli by_{think-COND.3PL.} že_{that} jsem_{be-PRS.1SG} blázen_{lunatic} [...]. – ‘They **would think** that I am crazy.’¹³

(7) *cantaré* → *muset* (‘must’) + infinitive

[...] a_{at} los_{DEF.ART} treinta_{thirty} y_{and} tres_{three} o_{or} cuatro_{four} que_{that} **tendrá**_{have-CANTARÉ.3SG} ahora_{now}. – ‘At her thirty-three or four that she **must be (literally: will be)** now.’

[...] ve_{in} třiatřiceti_{thirty-three} nebo_{or} čtyřiatřiceti_{thirty-four} letech_{years}, kolik_{how.much} jí_{to.her} teď_{now} **musí**_{must-PRS.1SG} **být**_{be-INF}. – ‘At her thirty-three or four that she **must be** now.’¹⁴

(8) *cantaré* → epistemic particle (no verb)

Por_{for} eso_{this} **será**_{be-CANTARÉ.3SG}, pues_{then}. – ‘In **must be (literally: will be)** for this, then.’

Proto_{for.this} **asi**_{maybe}, já_{well}. – ‘Well, **maybe** for this.’¹⁵

¹⁰ ÚČNK – InterCorp. Arturo Pérez Reverte, *La table de flandes (Vlámský obraz)*, Czech transl. Bronislava Skalická, English translations and glosses by the authors.

¹¹ ÚČNK – InterCorp. Juan Marsé, *Rabos de lagartija (Ještěři ocásky)*, Czech transl. Marie Jungmannová, English translations and glosses by the authors.

¹² ÚČNK – InterCorp. Mario Vargas Llosa, *La ciudad y los perros (Město a psi)*, Czech transl. Miloš Veselý, English translations and glosses by the authors.

¹³ ÚČNK – InterCorp. Julia Navarro, *La Hermandad de la Sábana Santa (Bratrstvo turinského plátna)*, Czech transl. Vladimír Medek, English translations and glosses by the authors.

¹⁴ ÚČNK – InterCorp. Javier Marías, *Corazón tan blanco (Srdce tak bílé)*, Czech transl. Blanka Stárková, English translations and glosses by the authors.

¹⁵ ÚČNK – InterCorp. Mario Vargas Llosa, *El hablador (Vypravěč)*, Czech transl. Anežka Charvátová, English translations and glosses by the authors.

In the analysis, we also focused on the semantics of the verbs appearing in the *cantaré* and *budu (zpívat)*. The results can be found in Tables 3 (Czech respondent types and their respective frequencies) and 4 (Spanish verbs with epistemic-inferential interpretation in the *cantaré* form that we analysed).

Table 3
Czech respondents of epistemic-inferential uses of *cantaré*.

Data results

Czech translation	Frequency	
1) Bare <i>budu (zpívat)</i>	5	<i>být</i> ('be'): 5
2) <i>Budu (zpívat)</i> + epistemic particle/verb	8/3 ¹⁶	<i>být</i> ('be'): 7 <i>chtít</i> ('want'): 2 <i>vědět</i> ('know'): 2
3) <i>Budu (zpívat)</i> + locative/temporal adverb	4/2	<i>být</i> ('be'): 5 <i>hlídat</i> ('monitor'): 1
4) Present tense + epistemic particle/verb	9/32	
5) Bare present tense	18	
6) Conditional	5	
7) <i>Muset</i> ('must') + infinitive	4	
8) Epistemic particle (no verb)	6	
9) Other translation ¹⁷	4	

Table 4
Spanish verbs in the *cantaré* paradigm with epistemic-inferential interpretation.

Cantaré (84%)		Estar + gerund (16%)	
<i>Andar</i> ('walk')	2	<i>Aburrirse</i> ('be bored')	1
<i>Creer</i> ('believe')	3	<i>Buscar</i> ('look for something')	1
<i>Concebir</i> ('conceive')	1	<i>Dar (resultados)</i> ('give results')	1
<i>Estar</i> ('be' – locations and temporary states)	4	<i>Comer</i> ('eat')	1
<i>Estar</i> ('be') + participle	9	<i>Hablar</i> ('speak')	1
<i>Faltar</i> ('be missing')	1	<i>Hacer (gárgaras)</i> ('gargle')	1
<i>Gustar</i> ('like')	1	<i>Juntar</i> ('put together')	1
<i>Haber</i> ('exist')	8	<i>Pasar</i> ('spend')	1
<i>Haber que/de</i> ('be necessary')	3	<i>Parecer</i> ('look like')	1
<i>Observar</i> ('observe')	1	<i>Pensar</i> ('think')	4
<i>Pensar</i> ('think')	4	<i>Preguntar</i> ('ask')	1
<i>Poder</i> ('can')	2	<i>Referirse</i> ('refer')	1
<i>Pretender</i> ('intend')	1	<i>Volver loco</i> ('drive somebody crazy')	1
<i>Querer</i> ('want')	5		
<i>Recordar</i> ('remember')	1		

¹⁶ The first number corresponds to expressions that were already present in the original; the second number shows the frequency of expressions which appeared only in the Czech translation and had no correspondence in the Spanish original.

¹⁷ The structure of the Czech respondent did not correspond to the original.

<i>Reconocer</i> ('recognize')	1
<i>Saber</i> ('know')	9
<i>Seguir</i> ('follow', 'continue')	1
<i>Ser</i> ('be' – permanent states)	2
	2
<i>Tener</i> ('have')	4
<i>Tener que</i> ('have to')	1

4.2. Discussion

As can be observed, despite the possible epistemic-inferential interpretation of *budu* (*zpívát*), the Czech translations tend to express the notions associated with the original Spanish construction differently. The *cantaré* paradigm was translated by *budu* (*zpívát*) in only 22 cases and 17 of these translations corresponded to the verb *být*. The Czech verb appeared in only 5 cases without any other lexical expression that would support the epistemic-inferential interpretation, as in (1).

In the remaining 17 cases, the *budu* (*zpívát*) paradigm was accompanied by a lexical element that enabled or underlined the epistemic-inferential interpretation. These results are listed in Table 5.

Table 5

Czech translations *cantaré* including *budu* (*zpívát*) + lexical completion¹⁸.

A	supongo _{suppose-PRS.1SG} que _{that} ahí _{there} habrá _{be-CANTARÉ.3SG}	With tím _{this} bude _{be-BUDU.3SG} asi _{maybe} problém _{problem}
B	será _{be-CANTARÉ.3SG} tal vez _{maybe} algún _{some} antiguo _{old} amor _{love}	to it bude _{be-BUDU.3SG} asi _{maybe} nějaká _{some} stará _{old} láska _{love}
C	probablemente _{probably} la _{DEF.ART} popa _{ster} será _{be-CANTARÉ.3SG} inmundo _{filthy} lugar _{place}	žád' _{ster} bude _{be-BUDU.3SG} pravděpodobně _{probably} špinavá _{dirty}
D	seguramente _{surely} estará _{be-CANTARÉ.3SG} en _{at} casa _{home}	určitě _{surely} bude _{be-BUDU.3SG} doma _{home}
E	pensó _{think-PST.3SG} estará _{be-CANTARÉ.3SG} endiabladamente _{bloddy} cálido _{hot}	pomyslel _{think-PST.3SG} si _{REFL} bude _{be-BUDU.3SG} to it zatraceně _{bloddy} rozpáleně _{hot}
F	seguramente _{surely} sabrá _{know-CANTARÉ.3SG} de _{about} algo _{something}	jistě _{surely} bude _{BUDU.3SG} o _{about} něčem _{something} vědět _{know}
G	sin _{without} duda _{doubt} querrá _{want-CANTARÉ.YOU.FORM} ver _{see}	budete _{BUDU.YOU.FORM} si _{REFL} nepochybně _{undoubtedly} chtít _{want} prohlédnout _{see}
H	tal vez _{maybe} querrá _{want-CANTARÉ.3SG} reconstruir _{reconstruct} de _{in} algún _{some} modo _{way}	možná _{maybe} bude _{BUDU.3SG} chtít _{want} nějakým _{some} způsobem _{way} obnovit _{restore}

¹⁸ Given the large amount of examples in Table 5, we present only an abbreviated source list; all metadata can be easily found in the Inter Corp. A: Bolaño, *Tercer Reich*; B: Bécquer, *Leyendas*; C: Cortázar, *Los premios*; D: Marías, *Mañana en la batalla piensa en mí*; E: Marsé, *Rabos de lagartija*; F: Cela, *La colmena*; G: Borges, *Ficciones* and *El Aleph*; H: Vargas Llosa, *La fiesta del chivo*; I: Etxebarria, *Amor, curiosidad, prozac y dudas*; J: Unamuno, *Abel Sánchez*; K: Delibes, *Diario de un cazador*; L: Mendoza, *La verdad sobre el caso Savolta*; M: Pérez Reverte, *La tabla de Flandes*; N: Vargas Llosa, *Lituma en los Andes*; O: Marías, *Corazón tan blanco*; P: Benedetti, *La tregua*; Q: Vargas Llosa, *Lituma en los Andes*.

I	no _{neg} será _{be-CANTARÉ.3SG} para _{for} tanto _{so.much}	snad _{hopefully} nebude _{NEG+be-BUDU.3SG} tak _{so} zle _{badly}
J	será _{be-CANTARÉ.3SG} su _{her} confesor _{confessor}	V _{in} tom _{that} bude _{be-BUDU.3SG} asi _{maybe} její _{her} zповědník _{confessor}
K	será _{be-CANTARÉ.3SG} de _{from} los _{DEF.ART} nervios _{nervs}	myslím _{think-PRS.1.SG} že _{that} to _{it} budou _{be-BUDU.3SG} nervy _{nervs}
L	por ahí _{somewhere.there} andar _{walk-CANTARÉ.3SG} la _{DEF.ART} jefa _{boss} , supongo _{suppose-PRS.1SG}	bude _{be-BUDU.3SG} někde _{somewhere} támhle _{there}
M	todo _{everything} estará _{be-CANTARÉ.3SG} revuelto _{upside.down}	bude _{be-BUDU.3SG} tam _{there} hrozný _{horrible} nepořádek _{mess}
N	estará _{be-CANTARÉ.3SG} tan _{as} vigilada _{vigilated} como _{as} la _{DEF.ART} mía _{mine}	tam _{there} budou _{BUDU.3PL} hlídat _{monitor} zrovna _{just} tak _{the.way} jako _{like} u _{at} mě _{my.place}
O	habrá _{be-CANTARÉ.3SG} muchos _{many} sitios _{places} abiertos _{open} todavía _{still}	hodně _{many} podniků _{bars} bude _{be-BUDU.3SG} ještě _{still} otevřených _{open}
P	ahora _{now} serán _{be-CANTARÉ.3PL} sus _{his} subordinados _{subordinates}	ted' _{now} budou _{be-BUDU.3PL} jeho _{his} podřízenými _{subordinates}
Q	estarán _{be-CANTARÉ.3PL} ahora _{now} en _{in} Parcasamba _{Parascamba}	ted'ka _{now} už _{already} bude _{be-BUDU.3SG} V _{in} Parcasambě _{Parascamba-GEN}

Of interest is that the lexical elements accompanying *буду* (*zpívat*) do not consist solely of expressions of epistemic modality or inference, as could be expected, but also of locative or temporal expressions such as *někde* ('somewhere'), *tam* ('there') or *ted'(ka)* ('now'). While the presence of temporal adverbs can be explained by the fact that they stress the non-prospective orientation of the process, thus underlining the epistemic-inferential interpretation, the locatives *někde* and *tam* have a different role. We claim that locative adverbs behave similarly to the Spanish progressive periphrastic construction, i.e. they imply spatial and temporal location and, thus, make a process or a state observable and present it as being virtually witnessed by the speaker. The locative adverb's role is evident with the verb *hlídat* ('to monitor'), which appeared to translate the Spanish participle construction *estar vigilado* ('to be monitored'). In Czech, the epistemic-inferential interpretation of *hlídat* would be impossible without the presence of *tam* ('there'); see the extended context of N in (9).

(9) ¿Piensas_{think-PRS.2SG} ir_{go} a_{to} tu_{your} casa_{house}? **Estará**_{be-CANTARÉ.3SG} tan_{as} vigilada_{vigilated} como_{as} la_{DEF.ART} mía_{mine}. – 'You think about going to your home? It **must be (literally: it will be)** just as monitored as mine.'

Ty_{you} chceš_{want-PRS.2SG} jít_{go} domů_{home}? **Tam**_{there} **budou**_{BUDU.3PL} **hlídat**_{monitor} zrovna_{just} tak_{the.way} jako_{like} u_{at} mě_{my.place}. – 'You want to go home? They **must be there, monitoring, just like at my place.**' (Literally: 'They **will monitor there, just like at my place.**')¹⁹

¹⁹ ÚČNK – InterCorp. Mario Vargas Llosa, *Lituma en los Andes (Smrt v Andách)*, Czech transl. Alena Šimková, English translations and glosses by the authors.

A similar use of a locative adverb can be found in an example of the epistemic-inferential use of *budu (zpívát)* presented by Karlík (2017), see (10)²⁰.

(10) On_{he} ted'_{now} bude_{BUDU.3SG} někde_{somewhere} luštit_{solve} křížovku_{crossword}.
'He must be (literally: will be) somewhere solving a crossword.'

Once again, in (10), it is the presence of the locative *někde* ('somewhere') that enables the epistemic-inferential reading. Without the adverb (*On ted' bude luštit křížovku*), this interpretation becomes impossible and the sentence could only be interpreted as referring to the future ('He is about to start solving a crossword'). In (9) and (10), the adverb adds a locative interpretation to the verb *být*, which results in the fact that this verb does not function solely as the future tense auxiliary in this case but rather as a fully semantic verb ('to be', 'to find oneself in a place'). Therefore, these uses present a sub-type of the epistemic-inferential uses of *být*.

Table 3 also shows that the epistemic-inferential interpretation of the *budu (zpívát)* form is strongly limited in Czech compared to Spanish. Verbs other than *být* expressed notions similar to the Spanish construction through the simultaneous presence of a lexical expression of probability. While the combination of a verb/adverb expressing the speaker's supposition and the *cantaré* paradigm can often be found in Spanish as well, the corpus analysis indicates that in Czech, such a combination is more frequent and is often necessary to enable the epistemic-inferential interpretation. The set of verbs allowing the epistemic-inferential interpretation in the *budu (zpívát)* form is also relatively small since, apart from the verbs *být*, *chtít* and *vědět* (and the boundary case of *hlídat*), no other direct correspondence *cantaré – budu zpívát* was found in our dataset. The most frequent type of translation was the present tense accompanied by an epistemic particle, as in (4) and (11).

(11) Se_{REFL} estar_{be-CANTARÉ.YOU.FORM} preguntando_{asking} a_{to} qué_{what} viene_{come-PRS.3SG} todo_{all} esto_{this} [...]. – 'You must be (literally: will be) asking what this is all about.'
Asi_{maybe} si_{REFL} říkáte_{say-PRS.YOU.FORM} co_{what} má_{should-PRS.3SG} tohle_{this} všechno_{all} znamenat_{mean} [...]. – 'You are probably wondering what all this means.' (Literally: 'You probably say to yourself what should all this mean.')

(11) can be considered a prototypical example where the periphrastic construction *estar* + gerund favours the epistemic-inferential interpretation of *preguntarse* ('to wonder')²². However, neither of its possible Czech respondents,

²⁰ Bolding, English translation and glosses by the authors.

²¹ ÚČNK – InterCorp. Isabel Allende, *Retrato en sepia (Sépiový portrét)*, Czech transl. Monika Baďurová, English translations and glosses by the authors.

²² If the non-progressive form *se preguntará* were used, the utterance would be ambiguous and would allow both the O + V and the O o V interpretation; with the progressive form, the ambiguity disappears, and the sentence can only be interpreted as epistemic-inferential use of *cantaré*.

such as the verbs *ptát se* ('to ask oneself') or *říkat si* ('to wonder', literally: 'to say to oneself') can be interpreted in this way, and they can only point to the future. The epistemic-inferential reading is thus achieved through *asi* ('probably', 'maybe'), which suggests that notions attributed to the epistemic-inferential uses of *cantaré* are preferably expressed analytically in Czech.

We claim that the results based on the corpus material can be analysed from a broader perspective and present in a new light the question of how verbal categories such as tense, modality, evidentiality, aspect and Aktionsart influence each other. In Kratochvílová (2019), it was claimed that the epistemic-inferential readings of *cantaré* "reflect" or "echo" the speaker's reasoning about the communication situation and the elements that form parts of it, such as the location, the external circumstances and the time in which a conversation occurs. We also claim that these characteristics can be found with all uses of *cantaré*, but with the epistemic-inferential readings, they become more patent than with the purely prospective ones. With the epistemic-inferential uses, the temporal orientation of the process loses its importance, which allows the shift in attention from the temporal to the modal-evidential characteristics of a process or a state. If we analyse the modal-evidential element of these uses of *cantaré* concerning the categories of aspect and Aktionsart, we can conclude that non-telic predicates and predicates in progressive aspect are ideal candidates for the epistemic-inferential type of reading. Their natural unboundedness presents an opportunity to observe a process or a state from "within". They allow to approach it with no reference to its beginning or its end and, more importantly, from an observer or experiencer's standpoint, with attention to a specific segment. The three Czech verbs that enabled epistemic-inferential reading with no restrictions (i.e. *být* – 'to be', *chtít* – 'to want' and *vědět* – 'to know') are prototypical representatives of non-telicity in its purest form. They impose a form of "zoom in reading", i.e. the speaker can access only a small portion of the process/state, which enables him/her to focus on and further elaborate it by the epistemic-inferential elements²³. The representation of the epistemic-inferential uses of *cantaré* in terms of a non-telic process/state whose portion is observed in detail and further elaborated also explains why in the Czech translations, the inferential-epistemic interpretation was often reinforced by the use of locative adverbs. We claim that these adverbs function as a lexical means for expressing this form of zooming since they explicitly point out the location from which the observation takes place, thus placing the speaker into the role of an actual or virtual observer.

²³ The Aktionsarten limitations are weaker in Spanish and the epistemic-inferential dislocation is very common in present day language. This results in the fact that, unlike in Czech, similar notions of epistemic-inference can also be expressed in past tenses, see RAE (2009: 1767–1795), and some authors even treat these uses as a new verbal mood rather than as a simple dislocation, see Zavadil and Čermák (2010) and Kratochvílová (2018b).

CONCLUSION

The usefulness of a systematic comparison of inference markers in Romance and Slavonic languages has recently been proven by Bonola (2018), who analyses the lexical markers of evidentiality in Russian and contrasts them with the Italian epistemic future (which is comparable to the Spanish one). We agree with the author on her approach to the traditionally called *epistemic future* in terms of a “conclusion of a non-demonstrative inference made by the speaker” (2018: 220), which enables its comparison with lexical expressions of evidentiality/inference. We also agree with her conclusions that the epistemic future can find its partial systemic counterpart in Slavonic evidential markers. Nevertheless, our research clearly shows that the analogy does not end here and that the notions attributed to the epistemic-inferential uses of the Romance future tense are often expressed in a more complex way in Czech (and, presumably, also in other Slavonic languages). The data obtained from the parallel corpus reveals three primary resources to translate the epistemic-inferential *cantaré*:

- a) epistemic-inferential use of *budu* (*zpívát*)
- b) lexical marker of epistemic modality or inference
- c) temporal or locative adverb.

To conclude, we also believe that the analysis proves the parallel corpora to be a useful tool for systemic comparisons between two languages, especially (but not only) since they enable us to see systemic relationships between two languages, such as the partial correlation between Czech locatives and the Spanish progressive aspect, which often cannot be intuitively guessed.

Funding: This work was supported by the European Regional Development Fund project “Creativity and Adaptability as Conditions of the Success of Europe in an Interrelated World” (reg. no.: CZ.02.1.01/0.0/0.0/16_019/0000734) and by the project *PaGeS 2.0* (University of Santiago de Compostela).

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EPISTEMIC FUTURE IN SPANISH AND CZECH**Abstract**

The present article analyses the epistemic-inferential uses of the Spanish future tense and their translations into the Czech language (the data is obtained from the InterCorp parallel corpus). While in both languages it is theoretically possible to express a supposition regarding the present situation through the form of “future tense”, the analysis reveals that this form of expression is more frequent in Spanish, while Czech prefers its combination with a lexical marker. The results enable us to present general observations regarding the relationship between the categories of aspect-Aktionsart and modality-evidentiality. Our main claim is that non-telicity and progressivity support the epistemic-inferential reading of future tense since they allow the speaker to present a process or a state as being witnessed from “within” and thus observe its portion in great detail. We also claim that this “zooming in” can be achieved when using the locative adverbs, which in the Czech language can substitute the Spanish progressive periphrases.