Acquisition of deictic movement verbs by Czech learners of Spanish as a foreign language

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Abstract: This paper aims to examine the extent to which Czech learners of Spanish as a foreign language acquire the Thinking for Speaking (TFS) patterns (Slobin 1996) with respect to deictic verbs of movement. Prior research (Gathercole 1977; Ibarretxe-Antuñano et al. 2014) has shown that movement verbs are not necessarily semantically equivalent in different languages, and this is likely to lead to cross-language interference. The correctness of Spanish deictic verb use in different conditions was assessed using a grammaticality judgement task and a cloze task for 40 Czech learners of Spanish and 13 native speakers. As expected, the native speakers outperformed the learners in both tasks, especially in conditions where Spanish and Czech mismatch. Importantly, the learners' performance tended to improve with increasing foreign language proficiency, suggesting the gradual acquisition of target language TFS patterns. The study represents a baseline investigation of Czech learners' difficulties and forms part of a larger project that aims to devise efficient methods of teaching deixis in a foreign language.

Key words: acquisition, motion verbs, Thinking for Speaking, foreign language learning.

1. Introduction[1]

Linguists, psychologists, and philosophers have long been pondering the question of what the relationship between what we think and what we say is (e.g. Dipper, Black et al. 2005). One kind of answer is offered by cognitive linguistics, which is an approach to language that emerged in the 1970s and explores the relationships between language and other cognitive faculties,

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such as attention, perception, and categorization of perceived stimuli. Cadierno and Hijazo-Gascón (2014: 97) give the following example to illustrate how the human ability to change visual attention between different aspects of a scene is reflected in linguistic structure. A sentence like (1), rather than (2), draws more attention to the agent of the action:

(1) The boy broke the glass.
(2) The glass was broken by the boy.

Another example of how language interacts with cognition is the process of subjectification, in which the speakers' conceptualization plays a significant role, because, for instance, objective motion can transform into abstract motion. Let us examine the following two sentences (Langacker 1991: 218):

(3) The balloon rose slowly.
(4) The hill gently rises from the bank of the river.

In (3) there is real movement in the external world being described, while in (4) there is a static situation and it is the speaker who subjectively conceptualizes the slope of the hill in terms of upward movement. This demonstrates that a language does not refer to things in the external world but to concepts in the speaker's mind.

In other words, when expressing something, the speaker takes his own perspective or viewpoint but she is also limited by the set of options that his language offers. This is the starting point of the Thinking for Speaking hypothesis (henceforth TFS) of Slobin (1996), who argues that, while speaking, we are fitting our thoughts into the available linguistic forms of our language. As a consequence, a particular language trains its users to pay attention to certain elements of a scene or event being described. Slobin supported the TFS with findings of how children with various mother tongues (English, German, Spanish, and Hebrew) described the picture story Frog, where are you? (Mayer 1969). Two of the utterances by a Spanish and an English child describing the picture of an owl were (Slobin 1996: 83):

(5) *El pájaro salió del agujero del árbol volando hacia abajo.*
     The bird exited of the hole of the tree flying downwards.
(6) The bird flew down from out of the hole in the tree.

In Spanish (5) the movement verb expresses the trajectory of the movement and the manner of motion is expressed with a separate element, namely the gerund *volando*. However, in English (6) the movement verb expresses the manner of motion and the trajectory is captured by its 'satellites' (Talmy 2000) *down*, *from*, and *out of*.

What we have discussed so far has consequences for second language acquisition because, as mentioned above, a language trains its users from childhood to process what they are expressing in particular ways, which are possibly language-specific, and, as proposed by Slobin (1996) and documented e.g. by Cadierno (2010) and Stam (2010), these patterns are difficult to restructure when learning a second language (L2).[2] Slobin (1996: 73) gives the example of L2 learners of Spanish whose first language (L1) does not encode imperfective versus perfective aspect and who therefore are not trained for this contrast, and consequently they will have difficulties with acquiring this distinction. Greater difficulties with the acquisition of motion verbs can be predicted for learners of second languages that are more typologically distant from their L1.

At this point it is relevant to briefly present the language typology of Talmy (2000), which is based on the way languages express movement. The examples (5) and (6) above were analysed on the basis of Talmy's distinction between verb-framed languages and satellite-framed languages. The former are languages in which the Path is lexicalized in the verb and the Manner or Cause is coded in a separate constituent, such as a gerund or an adverb, whereas the latter are languages in which the Path is expressed through satellites or prepositions and the Manner or Cause is lexicalized in the verb. Romance languages are verb-framed languages and, for instance, English or Czech (in which the Path can also be presented in bound prefixes) are satellite-framed languages. As an illustration below there are three examples from Martínková (2018: 40):

(7) *La botella entró*$_{PATH}$ *a la cueva* (*flotando*$_{MANNER}$).
(8) The bottle floated$_{MANNER}$ into$_{PATH}$ the cave.
(9) *Láhev v*$_{PATH}$*plula*$_{MANNER}$ *do jeskyně.*

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[2] The term 'second language' will be used in the sense of a foreign language as well in this paper.

Sometimes the manner of motion is not expressed in verb-framed languages, as indicated in example (7) by the parentheses. The Path is expressed by the preposition in English (8), while in Czech (9) this information is in the prefix.

The present study focuses on movement verbs in Spanish and Czech and its motivation comes from informally observed ungrammatical uses of Spanish deictic verbs of movement by Czech students of Spanish in spoken as well as written Spanish utterances. For example:

(10)   *Tengo dos o tres sugestiones, ahora *vengo en persona.*
       (*vengo*: form of *venir*, correct verb: *ir,* correct form*: voy*)
       I have two or three suggestions; I'll come in person in a moment.

(11)   *¿Quieres que *venga y te cuento un cuento para dormir?*
       (*venga*: form of *venir*, correct verb: *ir,* correct form*: vaya*)
       Do you want me to come and tell you a bedtime story?

(12)   *Y tengo que decir que ni yo *vendría a ese espectáculo.*
       (*vendría*: form of *venir*, correct verb: *ir,* correct form*: iría*)
       And I have to say that even I would not come to this show.

These examples illustrate some of the difficulties L1 Czech learners of L2 Spanish face. In the following sections a summary of uses of Spanish and Czech deictic movement verbs will be presented.

2. Deictic verbs in Spanish

Fillmore (1975) offered a framework for studying deixis. He asserted that deixis represents formal properties that can be classified in terms of the interlocutors (person deixis), the localization of the scene being described (place deixis), and temporal anchoring (time deixis). Fillmore defined several terms relevant to the present study: codification time, i.e. the time of the speech act; reference time, i.e. the period or point in time on which the utterance is focused, or the temporal background of the event being described; codification place, i.e. the place in which the speech act takes place; and reference place, i.e. the place in which the event described takes place.

Fillmore (1975) applies these terms to the description of the difference between the English verbs *go* and *come*. The deictic motion verb *go* expresses movement towards a place where the speaker *is not* present (i.e. not towards

the codification place) either at the codification time (13) or at the reference time (14), whereas the motion verb *come* expresses movement towards a place where the speaker *is* present (i.e. the codification place) at either the codification time (15) or the reference time (16), as well as towards a place where the addressee is present at the codification time (17) or reference time (18). So there are these possibilities in English (Fillmore 1975: 55-59):

(13) I am going to the swimming pool.
(14) I will go there tomorrow.
(15) Please come in now.
(16) He will come tomorrow to the office.
(17) Can we come over there?
(18) We will come there at dawn.

As regards Spanish motion verbs, Gathercole (1977) compared the usages of Spanish *venir* (the closest English equivalent is 'come') and *ir* (the closest English equivalent is 'go') with Japanese, English, and Turkish motion verbs, and found cross-linguistic semantic differences. In Spanish, *ir* is used when the movement is not towards the speaker (i.e. not towards the codification place), but towards the addressee or some other goal of movement (the reference place), while *venir* is used when the movement is towards the speaker (i.e. towards the codification place) either at the codification or reference time. Therefore, in Spanish translations of the previous English examples, sentences (23) and (24), corresponding to the English (17) and (18) using *come*, have to use *ir* rather than *venir*:

(19) *Estoy yendo a la piscina. [ir* 'go'*]*
(20) *Voy allí mañana. [ir* 'go'*]*
(21) *Por favor, ven ahora. [venir* 'come'*]*
(22) *Vendrá mañana a la oficina. [venir* 'come'*]*
(23) *¿Podemos ir allí? [ir* 'go'*]*
(24) *Iremos allí al amanecer. [ir* 'go'*]*

Finally, there is another context in which the verb *venir / come* is allowed in Spanish and English, namely when the speaker asks the addressee to accompany them to the reference place:

(25) *¿Quieres venir a la fiesta? [venir* 'come'*]*
        Do you want to come to the party?

In the last case we can thus observe a match between Spanish and English.

3. Deictic verbs in Czech

Deictic verbs of movement in Czech are more complex because this language distinguishes movement on foot and movement by vehicle:

Table 1. Czech deictic verbs of movement

Come	Go
on foot: *Přijít* *Přijdu domů* I will come home (walking)	on foot: *Jít* *Jdu domů* I am going home (walking)
by vehicle: *Přijet* *Přijedu domů* I will come home (by car/bus/bike, etc.)	by vehicle: *Jet* *Jedu domů.* I am going home (by car/bus/bike, etc.)

As can be seen, the verb *přijít* is derived from *jít* by means of a prefix. In fact, movement verbs in Czech can have various other prefixes that usually show the type of movement (the Path): *odjet* 'to drive away'*, vyjet* 'to drive out of a place'*, sjet* 'to drive down from a place'*, objet* 'to drive around a place'*,* etc. The prefixes also modify verbal aspect; for example, *jít* is imperfective, while *přijít* is perfective. The perfective forms are also used for expressing the future (see Table 1).

Lewandowski (2014) shows that in Slavic languages it is also possible to express movement towards the addressee or some other goals of movement (i.e. the reference place) either at the codification or the reference time using verbs of the type 'come' (*přijít, přijet*). Consider the following Czech and Spanish examples taken from a parallel corpus named InterCorp,[3] which is a part of the Czech National Corpus (the English translations are mine):

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[3] Using the tool called Treq, which is a bilingual dictionary of Czech and some foreign languages, including Spanish, built automatically from the InterCorp parallel corpus.

    (26) *Hned jak to skončí, **přijď** za mnou dozadu za pódium.*
          [přijít 'come'*]*
          *En cuanto termine, **ven** a buscarme detrás del escenario.*
          [venir 'come'*]*
          As soon as it finishes, come to pick me up backstage.
    (27) *Vidíš toho robota, co **jede** k nám?*
          [jet 'go'*]*
          *¿Ves ese robot que **viene** hacia nosotros?*
          [venir 'come'*]*
          Can you see the robot that is coming towards us?

In (26) Czech and Spanish match in using the verb 'come', since the reference place equals the codification place. However, Spanish and Czech mismatch in cases of movement towards the codification place, where Spanish always uses *venir* 'come' while Czech may use the verbs *jít* or *jet* 'go' (27). In example (28), there is movement towards an unknown reference place, which is expressed in both languages with the verb 'go'. In contrast, in (29), the movement is towards the addressee and therefore Spanish uses the 'go' verb while Czech may use the 'come' verb:

    (28) *Nevím, kam chtěl **jet** druhý den.*
          [jet 'go'*]*
          *No sé adónde pensaba **ir** al día siguiente.*
          [ir 'go'*]*
          I do not know where he wanted to go the next day.
    (29) *Můžu večer **přijít**? zeptal se pokorně.*
          [přijít 'come'*]*
          *¿Puedo **ir** a verte hoy por la noche? -preguntó humildemente.*
          [ir 'go'*]*
          Can I come to see you tonight? he asked humbly.

Whereas in (28) the movement has a departure perspective, i.e. a focus on the onset of the motion, and in both languages it is expressed with 'go' verbs, in (29) the movement has an arrival perspective, i.e. a focus on the completion of the movement, and in Czech a 'come' verb is used, unlike in Spanish,

where the arrival perspective does not lead to the selection of 'come', as the choice of *venir* 'come' versus *ir* 'go' follows another criterion (whether the arrival is towards the codification place versus towards a reference place differing from the codification place, respectively).

Example (30) demonstrates the comitative context, in which the speaker asks the addressee to accompany them to a reference place differing from the codification place, and some authors (e.g. Lewandowski 2014) considered it as a kind of movement towards the speaker. In Czech the verb 'go' is used in this context, while in Spanish the verb 'come' is used.

(30)   *Vy s námi nechcete **jet**, done Adriáne?*
         [jet 'go'*]*
         *¿Usted no quiere **venir** con nosotros, don Adrián?*
         [venir 'come'*]*
         You do not want to come with us, sir Adrián?

4. The present study

The experiment presented in the next chapter is based on Lewandowski (2014), who studied L1 Polish students of L2 Spanish. A grammaticality judgement task used in the present study targets verbs in the same conditions of deixis as Lewandowski did but with some modifications. Specifically, the respondents had to choose in which part of the sentence there was a mistake, if in any, and to indicate how certain they were about their response on a scale from 1 to 4. A cloze test was also conducted as part of the current experiment for comparison. In the following sections the specific research questions are stated and the methodological characteristics of the study are presented.

4.1. Research questions

The study seeks to answer the following questions, centring on the mismatches in the use of deictic verbs of movement in Spanish versus Czech discussed above:

Q1. Have advanced L1 Czech learners of L2 Spanish successfully acquired the TFS patterns with respect to deictic verbs of movement? By TFS

patterns we mean attention to particular semantic aspects of a motion event that must be noticed and expressed in L2 (Cadierno 2010: 6).

Q2. Will more proficient learners outperform the less proficient learners? More specifically, will the results of the most proficient learners be more similar to the native speakers' results than those of the less proficient learners?

Q3. How will the learners perform regarding the different uses (conditions) of the deictic verbs of movement?

Q4. Will the pattern of results of the grammaticality judgement (forced-choice) task correspond to those of the cloze test (which uses open-ended responses)?

4.2. Participants

There were sixty participants in this study, forty-seven learners of Spanish and a control group of thirteen native Spanish speakers. The learners, forty women and seven men, were aged between twenty and twenty-five years and were students of Spanish Philology at Palacký University Olomouc in the Czech Republic. They had to fulfil the following requirements in order to take part in the experiment: they had to have at least a B1 level of Spanish proficiency, their mother tongue had to be Czech, and they could not have a high proficiency level in another Romance language in order to avoid interference from those languages, as other Romance languages have different patterns of deictic movement verbs (see e.g. Andria and Hijazo-Gascón 2018). Six learners reported not having Czech as their L1 and one reported a high level of proficiency in Italian, so the data in the learner group consisted of responses collected from forty subjects.

4.3. Materials

The materials used include a language questionnaire, an online proficiency level test from the Instituto Cervantes (available on the website of *Aula Virtual de Español*[4]), a grammaticality judgement task (henceforth GJT), and

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[4] https://ave.cervantes.es/prueba_nivel/default.htm

a cloze task (henceforth CT). The native speakers only completed the GJT and the CT.

The participants filled out the brief language questionnaire approximately a month prior to the actual testing. This was done in order to inform the students about the experiment (without disclosing the purpose of the investigation) and to obtain their consent, as well as to screen out any respondents who did not meet the inclusion criteria.

On the same day, the participants also completed the online Spanish proficiency test and it took them between thirty and sixty minutes to complete (the time varied between participants as the test adapts online to the respondent's proficiency level). The test had three parts: structures and vocabulary, reading comprehension, and listening comprehension. It was conducted in order to be able to separate the students into different proficiency levels. The resulting classification of the participants, with the average age of the subjects in each category, can be found in Table 2.

Table 2. Participants' proficiency levels

Spanish Proficiency level	Number of subjects	Age average
B1.3-B1.4	10	22.30
B2.1-B2.2	4	21.50
B2.3-B2.4	2	21.50
C1.1-C1.2	8	20.75
C1.3-C1.4	16	21.56

About a month later, the 40 selected learners and the 13 native Spanish controls completed the GJT, which took them approximately half an hour. It consisted of forty sentences that the participants needed to evaluate as correct or incorrect. Out of these, twenty were sentences that contained correct and incorrect usages of deictic verbs of movement and the other twenty were fillers (targeting other grammatical differences between Spanish and Czech, such as determiners). There were four sentences measuring each type of usage (see Table 3 and the corresponding text below), two correct and two incorrect. The participants were asked to decide if the sentence was correct or incorrect

and, if they thought it was incorrect, they had to select in which part of the sentence the mistake was (each sentence was subdivided into three parts; see the example (33) below and Appendix 1) and indicate how sure they were about their answer on a Likert scale from one to four, where one represented the lowest level of certainty and four the highest. Three different versions of the GJT were created, implemented as online *Google forms*, by randomly rearranging the order of individual sentences to reduce any potential effect of order on the participants' responses.

Table 3 gives a classification of the five possible motion-direction conditions, based on Lewandowski (2014) and on the Czech examples found in InterCorp (see above). As mentioned above, each condition was represented by four target sentences (two correct and two incorrect).

Table 3. Uses of Spanish and Czech deictic verbs of movement

GOAL OF MOTION	CZECH	SPANISH
1. towards the codification place (the speaker), neutral context	*přijít/přijet* 'come'	*venir* 'come'
2. towards a reference place differing from the codification place (towards the addressee or another place), departure perspective	*jít/jet* 'go'	*ir* 'go'
3. towards the codification place (the speaker), comitative context	*jít/jet* 'go'	*venir* 'come'
4. towards the codification place (the speaker), departure perspective	*jít/jet* 'go'	*venir* 'come'
5. towards a reference place differing from the codification place (towards the addressee or another place), arrival perspective	*přijít/přijet* 'come'	*ir* 'go'

The hypothesis was that the Czech learners of Spanish would have more difficulties with mistake recognition and filling gaps in the conditions where Czech and Spanish mismatch, namely conditions 3, 4, and 5. As discussed above, the mismatch arises from the fact that in Slavic languages it is not important if the movement is towards the speaker, the addressee, or another goal, as is the case in Spanish; instead, the difference between the arrival and departure perspectives is what matters (Lewandowski 2014).

One of the three versions of the CT (the same texts but in three different orders) was presented to each participant on the same day as the GJT (always after the GJT), taking approximately ten minutes. This task comprised three different brief texts with five gaps to be filled altogether, one for each of the five conditions in Table 3. The participants were required to fill in the gaps with the verb they thought best fitted the context. Example items from the GJT and CT are attached in Appendices 1 and 2, respectively.

4.4. Data coding

For the GJT, the dependent variable was defined as the *composite correctness score* reflecting both the (in)correctness and the level of the participants' certainty. It was computed by multiplying the participant's certainty score (1 through 4) by 1 if their answer was correct and by -1 if it was incorrect. Therefore, the values ranged between -4 (the worst) and 4 (the best). Let us consider the subject's response using this example:

(31) *Mañana   voy al cine   a ver la película.*
        A   B   C
        Tomorrow I am going to the cinema to see the film.

This is a grammatical sentence in Spanish. If the subject considered it ungrammatical because of section C and he or she was almost absolutely certain about the answer (i.e. chose 3 on the Likert scale of certainty), the response was coded as -3. If the subject considered the sentence grammatical but was unsure (1 on the certainty scale), the response was coded as 1.

The independent variables were *Spanish proficiency level* (with five learner levels, see Table 2, and one native level) and *Condition*, which represents the five conditions of the usage of deictic verbs (see Table 3).
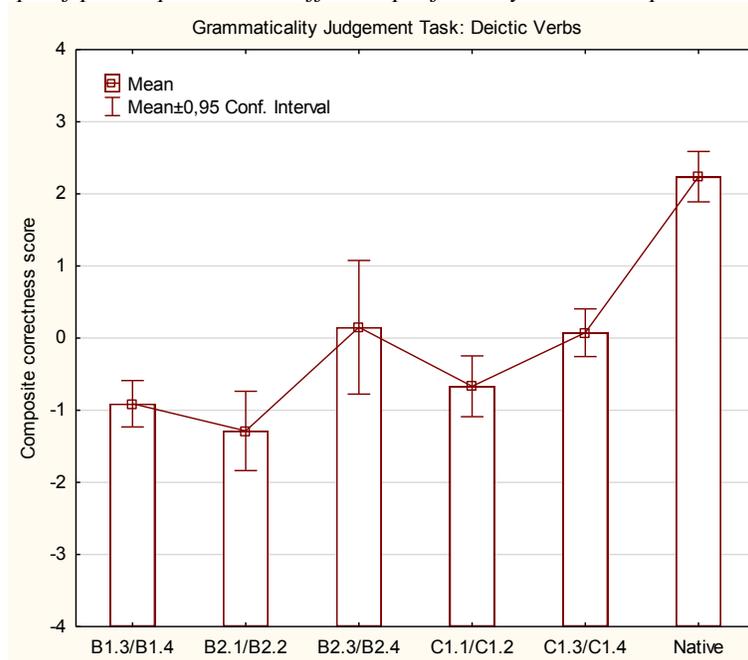
Regarding the CT, the dependent variable was the ordinal variable *correctness score*, with three levels of (in)correctness: a completely wrong answer (the wrong verb) was coded as 0, a partially wrong answer (the correct verb but with incorrect verb tense or orthography) was coded as 1, and a correct answer was coded as 2. The independent variables were the same as for the GJT.

5. Results and discussion

Descriptive and inferential statistics were performed in Statistica[5] and SPSS.[6] Q1 is whether the learners have acquired the TFS patterns regarding the deictic verbs of movement. This question will be answered in the conclusion section.

Q2 asks about how the level of proficiency affects the results: hypothetically, the higher the proficiency level, the higher the correctness scores. In Figure 1 the means of the *composite correctness score* from the GJT are plotted against the Spanish proficiency level group.

Figure 1. Mean composite correctness scores from the GJT for the groups of participants with different proficiency levels in Spanish


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[5] Version 13.4.0.14, available at https://www.tibco.com/resources/product-download/tibco-statistica-trial-download-windows.
[6] Version 18.0.2, available at https://www.ibm.com/analytics/spss-statistics-software.

As could be predicted, it can be seen that the level of mean correctness generally improves as a function of increasing proficiency in Spanish. One exception to this trend seems to be the level B2.3/B2.4, with a somewhat higher mean correctness than expected on the basis of the means observed for the lower and higher levels. However, at this level the confidence interval is large, indicating a wider distribution of individual data around the mean, and in fact, as stated in Table 2 the number of participants of this proficiency level was only two. (Therefore, more participants with the B2.3/B2.4 level will be recruited in the future.) It is interesting to note that for the native level of Spanish proficiency, with the mean correctness well below 3 (with 4 being the maximum), we do not observe a ceiling effect; in other words, the task was not trivial for them.

Figure 2. Mean correctness scores from the CT for the groups of participants with different proficiency levels in Spanish
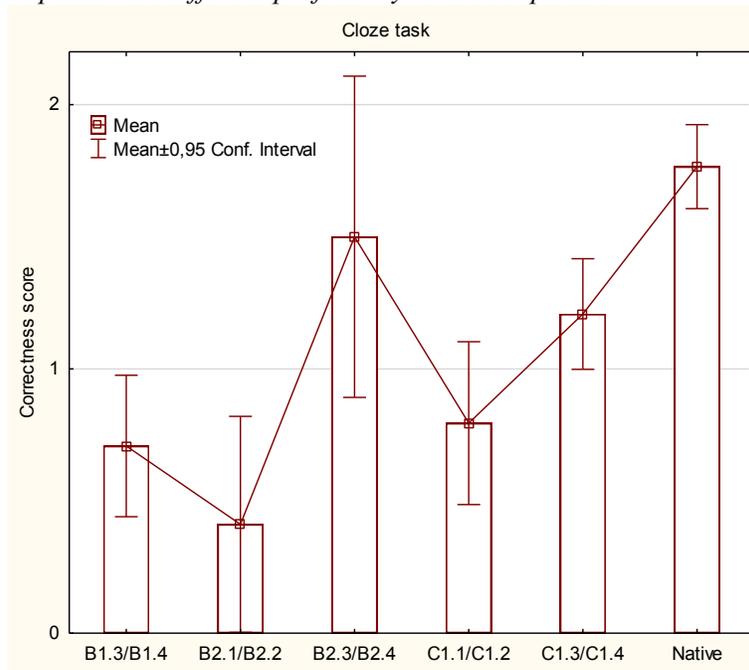
The mean correctness scores given in Figure 2, again split by proficiency level, closely mirror those from the GJT and corroborate the expectable trend of improving correctness with increasing proficiency. (Again, the results for the two participants on the B2.3/B2.4 level show large variability and do not fit into the general trend.) Here, too, the native mean does not reach the maximum.

Q3 was about how the learners' performance would differ in the different conditions, as listed in Table 3. The hypothesis was that the learners would do better in conditions 1 and 2 (where Czech and Spanish are matched) and worse in conditions 3, 4, and 5 (where there is a mismatch between Czech and Spanish). Figure 3 shows the mean composite correctness scores from the GJT split by the five conditions separately for the learner group and the native group. The learner group did best in condition 2 (movement not towards the speaker, departure perspective) and worse in conditions 1, 3, 4, and 5.

Figure 3. Mean composite correctness scores from the GJT for the five different deictic verb conditions for the learners and native speakers.
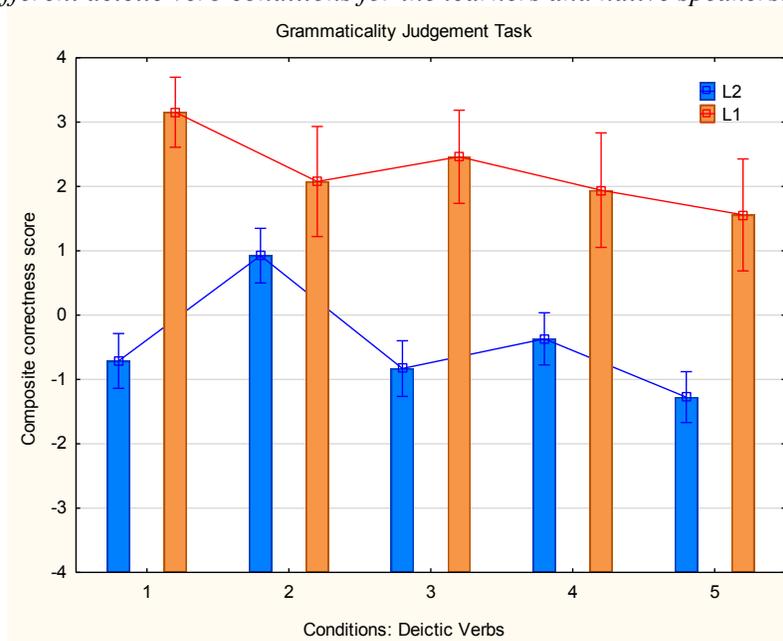
Figure 4 shows analogously the correctness score from the CT for the different conditions, again separately for the learners and the native speakers. In the CT, i.e. a task with open-ended insertion of verbs by the participants, the most difficult conditions for the learners were conditions 3 and 4. Those that were less difficult were 1 and 2, as expected, but also 5. The native performance in condition 3 (the comitative context) is unexpectedly low. This may be due to the situation presented in the CT:

(32) *Mercedes y Lucía hablan en la pausa de clase.*
      Mercedes: –¿Has visto la última película de Almodóvar?
      Lucía: – No, pero me gustaría verla.
      Mercedes: – ¿Quieres _____ conmigo al cine y la vemos?
      Lucía: – ¡Vale!
      Mercedes and Lucía talk during a break between classes.
      Mercedes: – Have you seen the last film by Almodóvar?
      Lucía: – No, but I would like to see it.
      Mercedes: – ¿Do you want to _____ with me to the cinema to see it?
      Lucía: – ¡OK!

According to Gathercole (1977: 66-68), *venir* is used when the speaker is asking the addressee or another person to accompany them, but when there is the expression *conmigo* (in English "with me") in the sentence the difference between *ir* and *venir* is possibly neutralized. There might be a semantic difference reflecting the degree of intimacy, where *venir conmigo* expresses a stronger wish by the speaker to be accompanied. Therefore, in (32), both *venir* and *ir* are perhaps possible and since only the first option was treated as correct this might be the reason why the native speakers scored worse in Figure 4.

Q4 was about the possible differences between the two language tasks (GJT and CT) that the participants did. First, the results for both tasks were in agreement in the sense that an effect of proficiency on correctness could be seen (cf. Figures 1 and 2). Taking into consideration Figures 3 and 4, in the CT the learners achieved better scores than in the GJT. A similarity between Figures 3 and 4 is that the learner group had the highest scores in condition 2 (non-speaker goal of motion, departure perspective) in both tasks.

Figure 4. Mean correctness scores from the CT for the five different deictic verb conditions for the learners and native speakers
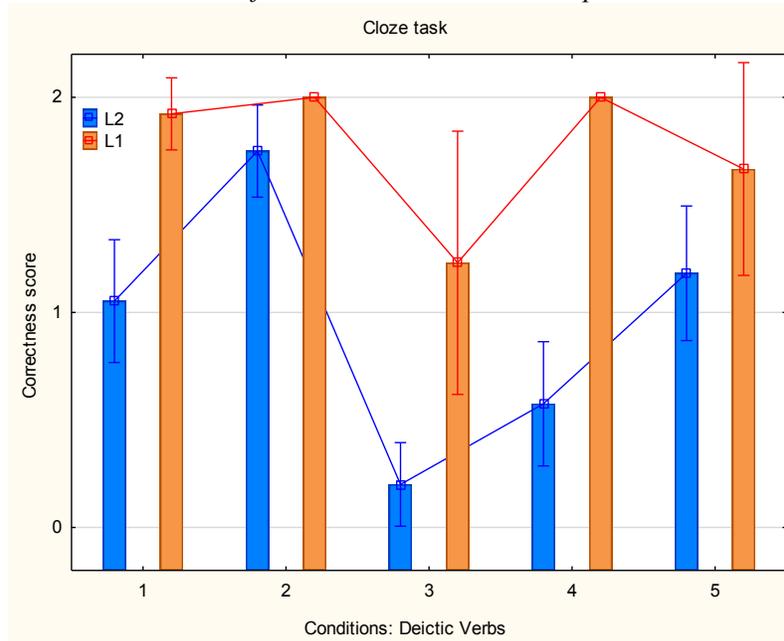
To assess the significance of the trends observed in Figures 1 and 2 inferentially, Tables 4 and 5 show the adjusted residuals for the GJT and the CT, respectively. Statistically significant differences from the expected values in the contingency table (i.e. differences from the hypothetical situation where there is no relationship between proficiency level and correctness in both tasks) are shown using colour coding (red for lower and green for higher values than the values expected if correctness does not vary as a function of proficiency level).

If we focus on the last column of Table 4, which shows the correct responses with the highest level of certainty, we can see that all the learner levels except B2.3/B2.4 have fewer such responses than expected, while the natives have a higher percentage of such responses. At the same time, for correctness scores of -3 to 2 the natives have significantly lower percentages,

which the learners never do, with the exception of the correctness score of -2 for the most proficient learners. This convincingly confirms the expected difference between the native and non-native participants in the GJT, at least for the first four levels of proficiency. Additionally, within the learners' data, we can observe that for the two lowest proficiency levels, B1.3/B1.4 and B2.1/B2.2, rather than for the higher proficiency levels, significantly higher percentages of incorrect responses (i.e. negative scores) were somewhat more likely to occur and have greater differences from the expected values. Similarly, for a correctness score of 3 (a correct response with relatively high certainty) the least proficient learners had significantly fewer such responses and the most proficient learners a significantly greater percentage of such responses than expected. These findings provide support to the general trend observed in Figure 1, namely that composite correctness tends to increase with increasing proficiency.

Table 4. Percentages of responses with different levels of correctness in the GJT split according to proficiency in Spanish. Significant differences from expected values, as revealed by adjusted residuals, are colour-coded: significantly lower values are in red, significantly higher values in green.

		Composite correctness score (in %)							
		-4	-3	-2	-1	1	2	3	4
Spanish proficiency level	B1.3/B1.4	4.50	25.00	33.00	4.50	5.50	16.50	10.00	1.00
	B2.1/B2.2	13.75	33.75	16.25	6.25	8.75	8.75	10.00	2.50
	B2.3/B2.4	5.00	25.00	15.00	5.00	0	17.50	20.00	12.50
	C1.1/C1.2	11.25	25.00	19.38	5.63	6.25	13.13	12.50	6.88
	C1.3/C1.4	13.44	18.75	11.56	5.94	3.75	10.94	21.56	14.06
	Native	9.62	5.38	4.23	2.31	0	5.38	13.85	59.23

Similar observations can be made about the adjusted residuals for the CT listed in Table 5. Unlike any of the learner levels, the native speaker participants had significantly greater percentages of completely correct responses (score of 2) and simultaneously significantly fewer wrong (score of 0) and partially wrong (score of 1) responses. This confirms, even for the CT, the expected difference between the learner and native data. To evaluate

whether correctness in the CT was predicted by a learner's proficiency level, we can inspect the values for scores of 0 and 2. (There are no significant differences from the expected percentages for a score of 1.) For the correct responses (score of 2), the adjusted residuals increase as the proficiency level increases; for the incorrect responses (score of 0) the residuals then decrease as proficiency increases. (The results for the level B2.3/B2.4 disturb this pattern; however, let us recall that the number of participants with this proficiency level was only two and their results thus must be regarded as unreliable and interpreted with caution). This clearly shows that correctness in the CT was significantly affected by proficiency in Spanish.

Table 5. Percentages of responses with different levels of correctness in the CT split according to proficiency in Spanish. Significant differences from expected values, as revealed by adjusted residuals, are colour-coded: significantly lower values are in red, significantly higher values in green.

		Correctness score (in %)		
		0	1	2
Spanish proficiency level	B1.3/B1.4	60.42	8.33	31.25
	B2.1/B2.2	76.47	5.88	17.65
	B2.3/B2.4	20.00	10.00	70.00
	C1.1/C1.2	56.41	7.69	35.90
	C1.3/C1.4	33.77	11.69	54.55
	Native	10.94	1.56	87.50

6. Conclusion

The purpose of the study was to test Czech learners' acquisition of the TFS patterns in their L2 Spanish. The main finding was that even the most advanced learners have not fully acquired the usage of Spanish deictic verbs of movement. The learners were clearly worse than the native speakers in both tasks. The struggle of the Czech learners of Spanish could be due to the semantic differences between Spanish and Czech, and perhaps also due to the fact that some manuals for teaching Spanish to Czechs or teachers do not have

the appropriate orientation when it comes to explaining the Spanish deictic verbs of movement (equating the Spanish verb *ir* with the Czech forms *jít/jet* and *venir* with *přijít/přijet*) or to the fact that pragmatic aspects of communication are usually forgotten in language teaching in the Czech Republic (Fernández Couceiro 2001).

At the same time, though, the present results show that the higher the learner's level of proficiency, the better their results tended to be. This indicates that mismatching TFS patterns in a foreign language can, in principle, be acquired by foreign language learners and also motivates future research into efficient non-conventional teaching methods. Previous studies, such as the one conducted by Hasko (2010), in which thirty American learners of Russian and thirty native speakers of Russian were recorded telling the *Frog Story*, suggest that "traditional methods of teaching may not suffice for adult learners" (Hasko 2010: 57). The educational advantages of teaching Spanish grammar to foreigners according to the principles of cognitive grammar, as defined by Langacker (1991), have already been shown (Castañeda Castro 2004, 2006; Castañeda Castro and Alonso Raya 2009; Castañeda Castro and Alhmoud 2014). For instance, Colasacco (2019) found out that Italian and German learners who received cognitive instruction performed better when using Spanish deictic verbs of movement than learners receiving traditional instruction. A study comparing traditional with cognitive methods for Czech learners may be a continuation of this research.

This study was largely inspired by Lewandowski (2014) studying the acquisition of Spanish by Poles. However, the present study expanded the methodology of the grammaticality judgement task, which did not simply involve a choice between two response alternatives, correct and incorrect; rather, the participants were required to mark in which part of a given sentence they thought the mistake occurred (if there was any) and how sure they were about their response. In addition, an open-ended cloze task was included, which largely confirmed the findings for the grammaticality judgements, showing that the results are robust. Data from L2 oral narratives will also be useful for future studies. Because of the relatively small sample used in this study, the findings should be considered as indications of existing trends rather than conclusive evidence. More data is needed to allow broader generalizations to be made.

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APENDICES

Appendix 1. The Grammaticality Judgement Task

Encuentra los errores

Para cada una de las frases, escoja una de las cuatro opciones: si piensa que no hay errores, escoja la opción "no hay error", si piensa que hay un error y está en la primera parte de la frase (A), escoja "A", si piensa que hay un error en la segunda parte de la frase, escoja "B" y si piensa que el error se encuentra en la última parte de la frase, escoja "C". Luego, marque la respuesta a la pregunta de cómo de seguro está acerca de su respuesta (desde "no muy seguro" hasta "completamente seguro").

1. * (Padre habla con su hijo en casa)

Desayuna rápido, tienes que venir al colegio ya.
      A   B   C

1. No hay error
2. A
3. B
4. C

Appendix 2. The Cloze Task

Completa las oraciones

Para cada una de las tres situaciones, complete las oraciones con el verbo que crea adecuado.

1. * • Padre e hijo hablan en casa.

Padre: - (1) _____ aquí, por favor. Necesito hablar contigo.

Hijo: - Dime, papá.

Padre: - Voy a ser breve, porque tenemos que (2) _____ a recoger a tu madre en cinco minutos del trabajo. Ayer, cuando tu hermano (3) _____ a la biblioteca me dijo que no estabas, ¿dónde estabas?

Appendix 3. Examples for the conditions in the GJT

	Correct sentence	Incorrect sentence
Condition 1 Movement towards the codification place (the speaker), neutral context	¿Puedes venir aquí un momento? Quiero explicarte algo.	Id aquí, por favor. Necesito que me ayudéis.
Condition 2 Movement towards a reference place differing from the codification place (towards the addressee or another place), departure perspective	Disculpe, ¿adónde va este autobús?	(Padre habla con su hijo en casa) Desayuna rápido, tienes que venir al colegio ya.
Condition 3 Movement towards the codification place (the speaker), comitative context	¿Quieres venir esta noche al cine conmigo?	(Ana y Sofía se encuentran a Pedro caminando a la escuela) ¿Te vas a clase con nosotras?
Condition 4 Movement towards the codification place (the speaker), departure perspective	¿Ves esa persona que viene hacia aquí?	¿Es Juan la persona que va hacia aquí?
Condition 5 Movement towards a reference place differing from the codification place (towards the addressee or another place), arrival perspective	(Clara y María hablan en el colegio) ¿Qué tal la reunión anoche en tu casa? ¿Fue la persona que te gusta?	(Dos amigas hablan en el teatro) –Yo no vendría nunca a casa de esa mujer.