Wojciech Lewandowski

Deictic Verbs: Typology, Thinking for Speaking and SLA

Abstract

This paper investigates the acquisition of the motion verbs COME and GO by Polish speakers of Spanish L2. I show that whereas these verbs encode deictic information in Spanish, in Polish their use relies on non-deictic factors. In particular, COME is preferred when a goal-oriented perspective is adopted, while GO implies an source-oriented conceptualization of the motion event. Following Slobin (1996), I demonstrate that these typological contrasts yield different patterns of thinking for speaking, which influence L2 acquisition even at advanced stages.

1. Introduction

This paper is divided into two main parts: on the one hand, it presents a typological analysis of the lexical semantics of the deictic verbs *come* and *go* (henceforth, C&G), focusing mainly on data from Spanish and Polish and, on the other, it investigates on an empirical basis the role of "thinking for speaking" for SLA.

Following Fillmore (1997), I mean by deictic those verbs whose interpretation relies on the spatial and temporal location of the speech act participants. For instance, as shown in (1) the Spanish verbs *venir* 'come', *traer* 'bring' and *ir* 'go', *llevar* 'take' are deictic, because the first two imply the presence of the speaker at the goal of movement (which is conveyed by the spatial adverb *aquí* 'here'), while the last two imply his/her absence at the goal of movement (which is conveyed by the spatial adverb *allí* 'there').

(1) a. *Ven   / tráe-lo   aquí / *allí.*
        come.IMP   / bring.IMP-it   here / there
        'Come/bring it here/*there.'

    b. *Ve   / lléva-lo   allí   / *aquí.*
       go.IMP / take.IMP-it   here / here
       'Go/take it there/*here.'

Such implications are not involved in the meaning of other verbs, like *entrar* 'enter', since their interpretation is independent of the location of the speech act participants.

(2)   *Entr-a   aquí / allí.*
      enter-IMP here / there
      'Enter here/there.'

Although it has generally been assumed that C&G exhibit a deictic contrast in every language, characterized as motion towards the speaker vs. motion away from the speaker (Miller & Johnson-Laird 1976; Talmy 2000), recent cross-linguistic research has revealed that whereas such an analysis appropriately captures the lexical semantics of C&G in languages such as Spanish or Portuguese, in others, the deictic center of C can be shifted to other goals of movement, e.g. the addressee or even another goal of movement beyond the speech act participants.[1] Moreover, in most Slavic languages, including Polish, the use of C&G is related to other, non-deictic factors (Ricca 1993; Lewandowski 2010).

      Drawing on this observation, I show in this article that in Polish (and probably most Slavic languages) C is preferred when the speaker wishes to adopt an arrival-oriented perspective, and G, if the motion event is conceptualized from a source-oriented perspective. As a consequence, Polish speakers can choose to think about the same motion event from two different perspectives (that of arrival or that of departure), while no such possibility is available in languages where C&G codify strict deictic information (e.g., Spanish or Portuguese) and, hence, are in complementary distribution.

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[1] As suggested by an anonymous reviewer, the Spanish sentence *¿Vendrás mañana a la fiesta de Luis?* ('Are you coming tomorrow to Luis' party?'), pronounced in a situation in which neither the speaker nor the hearer are situated at the goal of movement, also illustrate the deictic center shift. Yet, according to my understanding, this so-called comitative context is a particular kind of motion towards the speaker at the reference time (this term will be explained more precisely in Section 2). Concretely, C can be used only if the speaker will be present at Luis' party (thus, his presence at the goal of movement is implied); otherwise, G has to be used.

In the second part of the article I address the implication of this cross-linguistic divergence for SLA. I adopt Slobin's (1996) "thinking for speaking" hypothesis, according to which different language patterns yield different patterns of thought in the process of expressing and interpreting verbal expressions. Consistently, we hypothesize that Polish speakers of Spanish L2 use C when the speaker strongly identifies with the goal of movement and G, when no such identification takes place, thus violating the strict deictic conditions of use of C&G in this language. By contrast, it can be expected that Spanish speakers of Polish L2 will follow the deictic conditions of use of C&G, not using C in contexts of motion towards a discourse entity different from the speaker, even if the contextual information indicates that the event is conceptualized as arrival-oriented.

The aim of this article is to test the first part of this hypothesis, i.e. the one concerning the acquisition of deictic verbs by Polish speakers of Spanish L2. The hypothesis was tested by means of an acceptability judgment task carried out with 30 Polish learners of Spanish and the results were interpreted in the light of Slobin's (1996) "thinking for speaking" hypothesis.

This article is organized as follows: Section 2 focuses on the usage patterns of C&G in Polish and Spanish. Section 3 and Section 4 investigate the influence of the typological differences reported in Section 2 for SLA. In particular, after giving a brief overview in Section 3 of the theoretical background of my study, that is, the "thinking for speaking" hypothesis and its application to SLA, I formulate in Section 4 the hypothesis, describe the procedure of the experiment and report on the results. Conclusions are drawn in section 5.

2. C&G in Polish and Spanish: Different ways of spatial conceptualization

As already noted in the Introduction, it has been widely assumed in the literature on motion events that all languages have a class of motion verbs corresponding to English *come* and *go* and that these verbs display a universal deictic contrast (cf. Miller & Johnson-Laird 1976; Talmy 2000, among many others).

However, as has been argued by Lewandowski (2010), there exist important cross-linguistic differences in the lexical semantics of C&G. While it is true that in some languages C describes motion towards the speaker, in others, the deictic center can be extended to other goals of

movement, such as the addressee or even another goal of movement beyond the speech act participants (Gathercole 1977; Ricca 1993; Di Meola 1994, among others). Quite importantly, the range of the possible goals of movement which can be codified as the Ground in C, seems to be subordinated to a strict universal hierarchy, which is shown in Table 1.

Table 1. Hierarchy of Grounds lexicalized in C

Goal	Languages
1. the speaker's location at the coding time	Portuguese, Shibe, ...
2. the speaker's location at the reference time	Jacatlec, Spanish, ...
3. the addressee's location	Catalan, English, Nepali, Turkish, ...
4. another goal of movement	Czech, Polish, Russian, ...

Following Fillmore (1971: 52), the term "coding time" is used to refer to the time of the communication act, and "reference time" to describe the time of the spatial event. Thus, in (3a) the spatial adverb "here" implies that the utterance denotes motion toward the place where the speaker is located at coding time, i.e., the moment of speaking; by contrast, in (3b) motion towards the speaker's location at reference time is referred to, since the deictic pronoun "that" conveys that he/she is located in a different place when uttering the sentence.

(3)   a. *John came here yesterday.*

       b. *John came to visit me at that place.*

Turning now to the semantic hierarchy depicted in Table 1, Lewandowski (2010) shows that C which can take as the Ground a goal of movement situated lower in the hierarchy than the speaker's location at the coding time, automatically allows for any other goal, which is placed higher in the established hierarchy. For example, in Portuguese, C is allowed only when motion toward the speaker is referred to at the coding time. In Spanish, C is used both in contexts of motion towards the speaker at the coding time and at the reference time. In Catalan, the verb under discussion describes displacement toward the speaker (at the coding and reference time) and the hearer. Finally, in languages such as Polish, C can refer to movement toward ANY goal (the speaker, the hearer, or a place situated beyond the speech act participants).

On the other hand, cross-linguistic data analyzed by Ricca (1993) strongly suggests that, usually, if such an extension of the deictic center takes place, C&G tend to alternate. For the sake of clarity, this issue can be

illustrated with some examples from English. All of them are taken or adapted from Fillmore (1997).[2]

(4)   a. *He came/*went here two hours before I arrived.* (Goal 1)

        b. *He'll come/go to the office tomorrow to pick me up.* (Goal 2)

        c. *She'll come/go there to meet you.* (Goal 3)

        d. *Tomorrow, I'll go/*come to John's place.* (Goal 4)

Since in English the deictic center can be shifted from the speaker's location at coding time (4a) to the addressee's location, both verbs alternate in the deictic center extension zone, i.e. in contexts of motion toward the speaker's location at reference time (4b) and motion toward the addressee (4c), but not in the context of motion toward another goal (4d). As shown in Table 1, in Spanish, such deictic center extension zone is constituted by Goal 2. As will be shown, under this condition of use of C&G, the alternation between both verbs is also possible, although G is clearly preferred when the absence of the speaker at the goal of movement is implied. Moreover, Fillmore (1997) noted that C&G differ not only as to the deictic information, but they also codify a different type of temporal orientation: G is source-oriented, since the temporal specification in (5a) refers to the initial point of movement, whereas C is goal-oriented, since the temporal specification in (5b) refers to the arrival time.

(5)   a. *I went home at seven.*

        b. *I came home at seven.*

One crucial conclusion should be drawn at this point: while the deictic center shift possible in some languages allows the adoption of two different perspectives (or construals, in Langacker's (1987) terms) when referring to the same objective spatial situation (the perspective of departure or the perspective of arrival), such a possibility is not available in languages where C&G codify strict deictic information and thus are in complementary distribution. This phenomenon is clearly related to Slobin's (1996) idea that the semantic and grammatical resources of a particular language influence the way the speaker can choose to think about a given event or entity. In order to illustrate more concretely this semantic divergence, in what follows I provide a more exhaustive comparison of the

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[2] For further cross-linguistic evidence, see Ricca (1993).

lexical semantics of C&G in Polish and Spanish. In particular, I show that these languages represent two typologically different usage patterns of C&G: whereas in the latter these verbs express the deictic opposition "motion towards the speaker" vs. "motion away from the speaker", in the former, the use of one or other verb relies on pragmatic factors related to a particular kind of conceptualization of the motion event.

2.1   C&G in Spanish

As illustrated in (6a) and (6b), the Spanish verb *venir* 'to come' typically describes motion towards the speaker's location at either coding or reference time, whereas the verb *ir* 'to go' is used in the context of movement toward any other goal.

(6)   a. *Ven   / *ve   aquí a las   cuatro.*
          come.IMP   / go.IMP here at ART   four
          'Come/*go here at four.'

      b. *¿Quién vendr-á   / ir-á   a ver-nos   a ese   lugar*
          who   come-3SG.FUT / go-3SG.FUT to see.INF-PRON.1PL   to that   place

          tan   lejano?
          so   far-off
          'Who will visit us in that far-off place?'

The spatial adverb *aquí* ('here') in (6a) indicates that the speaker is present at the goal of movement at the time when the sentence is uttered ("coding time" in Fillmore's (1971: 52) terms). Yet, the example in (6b) demonstrates that *venir* can describe not only motion toward where the speaker is located when uttering the sentence, but also toward the speaker's location at the time of the displacement ("reference time" in Fillmore's (1971: 52) terms), that is, toward a place where the speaker will be located when the displacement takes place.

The Spanish verb *ir* 'to go' is in almost complementary distribution with *venir* 'to come' since, as illustrated in (6a) and (6b), it cannot describe scenes where the Figure moves toward the speaker's location, unless motion toward the speaker's location at the reference time is denoted. This is in keeping with the typological introduction to deictic verbs outlined above: since the deictic center can be extended in Spanish to Goal 2 in Table 1, under this condition the use of both C as well as G is allowed.

However, it should be pointed out that the use of one or other verb involves a very important difference in meaning. As shown in (7a), G typically implies the speaker's absence at the goal of movement: since in (7a) the *Pluscuamperfecto* (Past Perfect) conveys that the speaker was not located at the goal of movement (the library) at the time when his/her brother arrived there, native speakers tend to use G. By contrast, (7b) describes a scene where the speaker is certainly present at the goal of movement (the airport) at the reference time and, consequently, G sounds odd in this sentence.

(7) a. *Llegu-é   a la biblioteca y   vi   que también*
      arrive-1SG.PST to the library   and see.1SG.PST that also

        hab-ía   ido /[??]venido mi hermano.
        AUX-3SG.PST gone / come   my brother
        'When I arrived at the library, I realized that my brother had gone/[??]come there, too.'[3]

     b. *He   telefoneado desde el aeropuerto y   me   han   dicho*
        AUX.1SG called   from the airport   and me   AUX.3PL   told

        que ven-ían   /[??]i-ban   a buscar-me.
        that come-3PL.PST / go-3PL.PST   to pick up.INF-PRON.1SG
        'I called from the airport and they told me that they were coming/[??]going to pick me up.'

A special case of motion towards the speaker are the so-called comitative contexts, i.e. situations in which the speaker asks the addressee to accompany him/her to a place. In Spanish, the use of C is obligatory in such speech acts (see (8)), since they involve, first of all, the addressee's displacement towards the speaker, while the displacement of both to another goal of movement may be regarded as a less salient property of their illocutionary force (the term is used in the sense of Austin 1975 and Holdcroft 1978).

(8) *¿Te   vien-es   con-migo a-l   cine?*
     PRON.2SG come-2SG.PRES   with-me   to-the cinema
     'Would you like to come with me to the cinema?'

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[3] I am grateful to José María Brucart for the examples in (7).

To sum up, in Spanish the verb *venir* describes purely motion towards the speaker (at either the coding or the reference time), whereas *ir* refers to motion in a direction different from the speaker.

2.2   C&G in Polish

The system of the Polish C&G is more complex than in Spanish since at least two Polish verbs corresponding to the Spanish *venir* can be found in dictionaries: *przyjść*, denoting movement on foot and *przyjechać*, denoting movement by vehicle (cf. Las & Wasilenko 2006). The same applies to the equivalents of *ir*: *pójść* refers to motion on foot, whereas *pojechać* refers to motion by vehicle. For the sake of simplicity, all examples cited in this subsection contain the verbs referring to motion on foot, but the same conditions of use are valid for the verbs referring to motion by vehicle.

As shown in (9),[4] both types of verbs can be used in contexts of motion towards any goal, i.e. the speaker (9a, 9b), the addressee (9c, 9d) or a goal beyond the speech act participants (9e) independently of whether the speaker is or is not located at the goal of movement at the coding or reference time.

(9)   a. *Jan   przyszedł   wczoraj   do mnie.*
         John come.3SG.PST   yesterday to me.GEN
         'John came to my place yesterday.'

      b. *Powiedział   jej, że   byłem   chory i   żeby do mnie   posz-ła.*
         tell.3SG.PST her that be.1SG.PST ill   and that to me.GEN go-3SG.PST
         'He told her that I was ill and asked her to come to my place.'

      c. *Mówi-łeś,   że   jak   ktoś   do ciebie*
         say-2SG.PST   that when somebody.NOM   to   you.GEN

         przychodzi,   robi-sz   się   nerwowy.
         come.3SG.PRES   make-2SG.PRES   REFL nervous
         'You said that every time somebody goes to your place, you get nervous.'

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[4] The data illustrating the use of C&G in Polish in (9) are introspective.

d. *Najpierw posz-li   do biura   i   stamtąd   posz-li*
   first   go-3PL.PST to office.GEN and   from there go-3PL.PST

   do   ciebie.
   to   you.GEN
   'First they went to the office and from there they went to your place'

e. *Podoba-ła   Ci   się   impreza   w Krakow-ie?*
   like-3SG.PST   you.DAT   REFL party.NOM   in Cracow-LOC

   Przysz-ło   dużo   ludzi?
   come-3SG.PST   many   people.GEN
   'Did you enjoy the party in Cracow? Did many people go there?'

As a general rule, C is preferred when the speaker strongly identifies with the goal of movement, and G when the speaker focuses on the departure point. As shown in (9a), usually when motion towards the speaker is described in a neutral context, the use of C is preferred: since the speaker is at the goal of motion, it is natural for him/her to take his/her own – arrival-oriented – perspective. However, the use of G is possible, e.g., when the speaker wishes to convey that he or she identifies with the source-oriented perspective of the person whose words he/she reports, as in (9b).

In (9c) and (9d) the goal of motion is constituted by the addressee. In (9c) the arrival-oriented perspective is taken, because, as in (9b), the speaker relates the event from the viewpoint of the subject of the sentence, i.e. the person whose message is described. However, in (9d) the departure perspective is due to the source-Path expression "from there", which determines the spatial orientation of the utterance.

In (9e), the speaker is talking about a party at a place he did not go to, but he uses C, because the goal of movement has previously been introduced in the discourse and so it serves as a focal Ground of the narration in the mind of the speaker.[5]

And finally, let us recall that in contrast to Spanish, comitative contexts in Polish require the adoption of a departure perspective, since, as illustrated in (10), in such speech acts the use of G is obligatory.

(10) *Pójdziesz   ze   mną   do kin-a?*
     go.2SG.FUT   with me.DAT to cinema-GEN
     'Would you like to come with me to the cinema?'

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[5] It is important to stress that in Spanish (9c) and (9e) are possible only if the speaker's presence at the goal of movement is implied at the coding or reference time, while such conditions are not required in Polish.

Summarizing this section, in Polish, it is possible to adopt two different perspectives (or construals, in Langacker's (1987) terms) when referring to the same objective spatial situation, that is, the perspective of departure or the perspective of arrival. No such possibility is available in the case of the Spanish C&G where motion towards the speaker can be depicted solely from the perspective of the arrival point (C is obligatory), whereas motion towards any other goal must be described from the perspective of the departure point (G is required). Let us recall that this phenomenon clearly reflects Slobin's (1996) idea that the resources of a given language determine (to a certain extent) the way the speaker can choose to think about a particular event when speaking about it.

The remainder of this paper explores the implication of these typologically divergent usage patterns for SLA. In particular, I will report on an acceptability judgment task related to the acquisition of C&G by Polish learners of Spanish. However, before going into details of my experimental study, a brief overview of the theoretical background of my experiment needs to be provided.

3.   Thinking for speaking in SLA

Over the last thirty years, many studies have explored the coding of motion expressions from a cross-linguistic perspective. As is well known, Talmy (1975, 1985, 2000) first proposed a typology of verbal lexicalization patterns according to which languages can be categorized as either verb-framed, such as Spanish, Turkish, Basque, etc., or satellite-framed, such as English, German, Polish, etc. In the former, the verbs express the Path component typically in the verb stem, while the latter commonly encode in the verb stem the Manner, with the Path being relegated to a secondary element, commonly a preposition or a prefix (cf. (11)).

(11) a. *The bottle floated into the cave.* (English)

      b. *La   botella   entró   a   la   cueva   flotando.* (Spanish)
         the   bottle   entered to the   cave   floating
         (Talmy 1985: 69ff)

On the other hand, research on first language acquisition has demonstrated that children learning typologically different languages pay attention to different aspects of motion events when talking about them, revealing that the influence of the linguistic input the children are exposed to is quite

strong as far as perception and expression of spatial relations is concerned (e.g. Berman & Slobin 1994; Bowerman 1994, 1996; Slobin 1996 *contra* Piaget & Inhelder 1956; Levine & Carey 1982, which focused on the role of the nonlinguistic experience in the development of spatial language). For instance, Slobin (1996) found that, when speaking about motion, English-speaking children used twice as many manner verbs as Spanish-speaking children. They also provided richer descriptions of paths. However, Spanish native speakers, when talking about the same motion event, tended to pay more attention to aspects of the static scene in which the movement took place. This has been attributed to the fact that speakers of satellite-framed languages pay more attention to the conflation of Motion and Manner than speakers of verb-framed languages in which Motion is usually conflated with the Path component in spatial expressions.[6]

In order to account for this finding, Slobin (1996) coined the term "thinking for speaking", which is defined as "a special form of thought that is mobilized for communication" (Slobin 1996: 76). Importantly, the "thinking for speaking" hypothesis differs crucially from the controversial linguistic determinism hypothesis (Whorf 1956): whereas the latter states that different language patterns yield different patterns of thought (i.e. the language a person speaks shapes the way in which this person understands the world), the former refers only to the role of language in the process of expressing and interpreting verbal expressions without predicting anything about the influence of language in thought in general.

As rightly observed by Stam (1998), if it is true that linguistic categories play an important role in the shaping of concepts that children are going to use in speaking, this would mean that learning a typologically different L2 involves learning another pattern of "thinking for speaking". Most recently, Cadierno and Lund (2004) suggested that applying the "thinking for speaking" theory for SLA would allow for a systematic investigation of the role of the learners' L1 in their acquisition of (motion events in) L2.

Researchers came to apparently contradictory conclusions concerning this issue. Cadierno and Ruiz (2006) examined the expression of Path and Manner of motion by two sets of learners: Danish learners of Spanish, i.e. learners whose L1 and L2 belong to different typological patterns (satellite-

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[6] As suggested by an anonymous reviewer, the reason behind the mentioned attention bias could be that satellite-framed languages have more verbs expressing manner at their disposal than verb-framed languages (cf. Kopecka 2006).

framed and verb-framed) and Italian learners of Spanish, i.e. learners whose L1 and L2 belong to the same typological pattern (the verb-framed one). The findings of the analysis supported the view of a rather limited role of L1 "thinking for speaking" patterns in advanced L2 Spanish learners. In fact, more significant differences were found between the Spanish L1 group and the two groups of learners than between the two learner groups themselves: contrary to the predictions, the Danish learner group did not use alternative means of expressing manner information to a greater extent than the Italian learner group (although it did exhibit a higher degree of elaboration of the semantic component of Path of motion than the Italian and the Spanish NS groups by incorporating a larger number of Ground specifications). However, in an independent line of research, Carroll, von Stutterheim and Nüse (2004) showed that L1 predispositions for "thinking for speaking" persist even at advanced stages. They compared the temporal framing of events by German speakers of English and found that even advanced learners tended to use the German narration pattern, consisting of sequences of bounded events of the type "he walks and then he sees… and then he thinks…", etc., whereas English native speakers presented the events from an ongoing perspective with respect to the deictic reference point "now" ("he is walking… and he sees… and then he is thinking…", etc.), which is due probably to the fact that German has no grammaticized progressive aspect.

The remainder of the present paper aims to provide evidence from the acquisition of C&G by Polish learners of Spanish supporting the idea that there is a L1 "thinking for speaking" influence in SLA, as Carroll, von Stutterheim and Nüse (2004) claim, but that certain patterns are acquired more easily than others. In other words, I want to argue that the relevant question is not *whether* there is a L1 "thinking for speaking" influence in SLA, but rather *why* certain "thinking for speaking" patterns are more difficult to restructure than others.

4.   The present study

4.1   Hypothesis

Taking into account the considerable cross-linguistic differences in the use patterns of C&G in Polish and Spanish, I hypothesized that there would be a L1 "thinking for speaking" influence in the acquisition of deictic verbs, i.e. that Polish learners of Spanish would use C in situational contexts

focusing on the goal of movement, and G in situational contexts focusing on the source of movement. This hypothesis involves five different situations, two in which a correct use (Conditions 1 and 4) and three in which an incorrect use of C&G is expected (Conditions 2, 3 and 5). I summarize these conditions in Table 2.

Table 2. Conditions of use of C&G in Polish and Spanish

GOAL OF MOTION	POLISH	SPANISH
1. SPEAKER, neutral context	C	C
2. SPEAKER, departure perspective	G	C
3. SPEAKER, comitative context	G	C
4. NON-SPEAKER, departure perspective	G	G
5. NON-SPEAKER, arrival perspective	C	G

4.2 Participants

The experimental group consisted of 40 learners of Spanish at two Polish universities: the Jagiellonian University in Cracow and the Adam Mickiewicz University in Poznań. 11 of them were male, 29 female and they were between 19 and 25 years old. For a participant's data to be included, all the following criteria had to be met: (a) their level of Spanish had to be "low intermediate" in order to ensure that they could understand the experimental items (see 4.3. "Testing instruments"), (b) they had to be native speakers of Polish, (c) the participant had not have stayed in a bilingual Spanish autonomous region for more than ten days, and (d) the participant had not to know any other Romance language. The last two criteria were included to prevent possible interference with other Romance or peninsular languages, such as Catalan or French, in which C&G behave differently than in Spanish. Ten native speakers of Spanish acted as controls: All of them were living in Spain at the time of the experiment. None of them were bilingual, Spanish was their only reported native language and they had never lived in a bilingual Spanish autonomous region.

4.3 Testing instruments

The testing instruments consisted of: (i) a language experience questionnaire, (ii) a cloze test testing their level of Spanish (see Appendix 1) and (iii) an acceptability judgment task designed to test the hypothesis stated in 4.1 (see Appendix 2).

The aim of the language experience questionnaire was to exclude from the analysis those participants which did not meet the criteria given in 4.2. Of the original 40 subjects, 1 reported that his/her native language was not Polish, 5 reported that they were learning another Romance language and 2 had stayed for more than 10 days in Catalonia. These subjects were not included in further stages of the experiment.

I elaborated my own cloze test in order to group the subjects of the experiment into different levels of language knowledge. It consisted of 100 items based on the lexical and grammatical material available in the "Sueña" books for learning Spanish as a foreign language corresponding to levels A1 and A2 (Álvarez Martínez, Blanco Canales, Gómez Sacristán, et al. 2001), B1 (Cabrerizo Ruiz, Gómez Sacristán & Ruiz Martínez 2006), B2 (Álvarez Martínez, De la Fuente Martínez, Giraldo Silveiro, et al. 2007) and C1 (Blanco Canales, Fernández López & Torrens Álvarez 2007). Each level was represented in the test by 20 items (10 grammatical and 10 lexical). I considered participants with more than 40 correct responses as "low intermediate", with more than 60 correct responses as "high intermediate" and with more than 80 correct responses as "advanced". Table 3 summarizes the means, standard deviation and ranges for the cloze test together with the mean age and the number of subjects within each level of language knowledge.

Table 3. Results of the cloze test

Level	M Results	SD	Range	M age	Number of subjects
Advanced	88.6	8.105	81-100	23.5	8
High Intermediate	73.6	4.776	61-80	22.4	12
Low Intermediate	48.2	5.788	41-60	20.4	10
Other	18.5	4.949	0-40	19	2

As seen from the results of the cloze test, the level of 2 of the remaining 32 participants was below intermediate. Their results were excluded from the analysis.

And finally, the main hypothesis was investigated using an acceptability judgment task, consisting originally of 16 sentences, 4 items per Condition (2 correct and 2 incorrect sentences), and the same number of distractors. The experimental items were intended to strongly reflect the five conditions depicted in Table 2. However, for methodological reasons I decided in the acceptability judgment task to test the preference of Polish native speakers for one or other verb in each context independently by means of a translation into Polish. This was performed with a control group

consisting of 10 subjects. All of the participants gave the expected responses for Conditions 1, 3, 4 and 5. But, 4 out of 10 Polish native speakers preferred the use of C to G under the second condition, which was removed from the experimental task.

The vocabulary used in each sentence fitted the lexical minima established in "Sueña" for low intermediate learners of Spanish in order to avoid the possibility that learners of low proficiency levels rejected sentences because of a word unknown to them or judged the sentence wrong because of a wrong understanding of the context. Given the fact that the order of the sentences might influence the result of the experiment owing to factors such as nervousness at the beginning of the experiment or fatigue toward the end of the experiment (Schütze 1996), the order of the experimental items was counterbalanced across different participants. Below each sentence there was a Likert scale with values from -2 to +2 in order to judge a given item as "sounds awkward" (-2), "sounds bad" (-1), "I don't know" (0), "sounds okay" (+1) and "sounds perfect" (+2). I considered a Likert scale questionnaire a convenient data collection instrument as it is practical to use with large numbers of participants and offers clear numerical data which are easy to analyze. Afterwards, the original Likert scale was converted to binominal data by combining all answers into the two categories of "correct" and "incorrect". For example, when the experimental item was a correct sentence and it was judged as either "sounds okay" or "sounds perfect", both answers were considered "correct". By contrast, when such a sentence was judged as "sounds awkward" or "sounds bad", both answers were assigned the value "incorrect".

4.4 Procedure

The data were collected between 3rd of August and 5th of September 2009 via an on-line video conference. First, all the participants answered the language experience questionnaire and after that they took the cloze test, measuring their level of Spanish. Next, they were presented with the acceptability judgment task and asked to judge the sentences on a Likert scale from -2 for "completely unacceptable" to +2 for "perfectly acceptable", according to their first impression. Precise instructions with examples not related to the sentences at issue were provided in order to explain the reasons why a sentence should be considered acceptable or unacceptable. The participants took 15-20 minutes to complete the

acceptability judgment task and they were not allowed to go back and modify their responses.

4.5   Results and discussion

Since it is controversial whether parametric tests such as ANOVA are appropriate for measuring Likert-scale data, the non-parametric Kruskal-Wallis and Fisher Exact Probability tests were run in order to analyze the data. The statistical software R was employed for this purpose.

As a first step, the Kruskal-Wallis test was run in order to investigate whether some of the conditions of use were acquired correctly by all experimental groups. According to the results there are no statistically significant differences between groups for Conditions 1 and 4 (p=0.3916 with 3 df for C1, while p=0.1646 with 3 df for C4). This was expected, since in these situations the conditions of use of C&G in Polish overlap with the Spanish ones, from which it logically follows that the "thinking for speaking" patterns did not need to be restructured: Polish speakers of Spanish judged correctly the experimental items from the earliest stages of acquisition because the "thinking for speaking" patterns are identical in both languages.

By contrast, for Conditions 3 and 5, the overall between-groups effect is significant (p>0.05 in each case), which means that there is at least one proficiency level whose responses differ in statistical terms from the responses of the control group. Thus, as a second step, a multiple comparison between groups for Conditions 3 and 5 was carried out by means of the Fisher Exact test. The Pearson Chi-Squared test could not be used due to the fact that the size of the samples was too small. With regard to Condition 5, the results show that it is practically impossible for Polish native speakers to learn this condition of use, since even advanced learners judge the experimental items incorrectly. The Fisher Exact test reveals, on the one hand, that the answers of each of the experimental groups differ significantly from the answers of the control group (p>0.01 for all cases). On the other hand, there are no significant differences between G1, G2 and G3, which means that no progress in the acquisition of the condition under discussion was made. The p-values for the between-groups comparison are shown in Table 4.

Table 4. The between-groups comparison for Condition 5

G1-G2	G1-G3	G1-G4	G2-G3	G2-G4	G3-G4
p=0.1028	p=1	p<0.01	p=0.2542	p<0.01	p<0.01

In contrast to Condition 5, clear progress in the acquisition of Condition 3 was observed. Although there is a significant difference between the answers of the control group vs. G1 and G2 (low and high intermediate), the answers of the advanced group (G3) and the control group are equal from a statistical viewpoint, though the effect is not very robust (p=0.0471). On the other hand, one should be aware that there are significant differences between G1 and G3 as far as the correctness of the judgments is concerned (see Table 5), which means that correct answers increase significantly with the proficiency level.

Table 5. The between-groups comparison for Condition 3

G1-G2	G1-G3	G1-G4	G2-G3	G2-G4	G3-G4
p=0.111	p<0.01	p<0.01	p=0.3203	p<0.01	p=0.0471

Concluding, my hypothesis is partially borne out: undoubtedly, there is a L1 "thinking for speaking" influence in the acquisition of C&G by Polish speakers of Spanish L2 even at advanced stages. However, some mappings of formal expression and conceptual content are easier to restructure than others (cf. Condition 5 vs. Condition 3). Although more research is necessary in order to answer the question of why Condition 3 is more prone to be acquired by Polish learners of Spanish than Condition 5, I would like to suggest that this might be due to the goal-bias in human cognition. In particular, it has been shown that children and adults tend to encode Goal paths in preference to Source paths and that asymmetry in speech production could have its origins in non-linguistic event representations (Lakusta & Landau 2005; Lakusta, Wagner, O'Hearn, et al. 2007). As far as the results of my experiment are concerned, it is important to note that Condition 3 involves the shift from a source-oriented perspective to a goal-oriented perspective (in Polish the departure-oriented G is used, whereas in Spanish the arrival-oriented C is obligatory). By contrast, Condition 5 involves the shift from a goal-oriented perspective to a source-oriented perspective (in Polish C is preferred, while in Spanish the use of G is required). Thus, it appears that the acquisition of C&G is constrained by the source-goal asymmetry in human cognition, since my experiment

showed that it is possible for Polish learners of Spanish to adopt a new "thinking for speaking" pattern focusing on the final point of movement, but it is almost impossible for them to restructure a goal-oriented perspective and adopt a source-oriented one.

When comparing my study with Cadierno and Ruiz's (2006) and Carroll, von Stutterheim and Nüse's (2004), it becomes clear that L1 "thinking for speaking" plays a crucial role in the acquisition of a L2, but it is constrained by different types of factors, such as probably the goal-bias in the case of C&G. However, further research is clearly needed in order to shed light on the nature of such factors and their systematic influence in the acquisition of "thinking for speaking" in L2. In short, the relevant question is not *whether* there is a L1 "thinking for speaking" influence in SLA, but rather *why* certain "thinking for speaking" patterns are easier or more difficult to restructure than others.

Finally, it should be mentioned that according to the anonymous reviewers of the present paper it is a controversial fact whether the "thinking for speaking" theory can be used to explain the results of an acceptability judgment task. As is well known, a typical "thinking for speaking" experiment consists of elicited narratives, i.e., two groups of participants from two different language groups look at the same external reality and describe it in different ways, devoting more attention to some details of the scene and less to others. Although my experiment does not start from a common external stimulus which is further conceptualized linguistically by speakers of two typologically different languages, I think that it is possible to reason that "thinking for speaking" plays a role here. As Slobin's theory states, language and thought are separate, because there is a lot of thinking which we cannot express even in our mother tongue. However, when we decide to encode our thinking in language, we are forced to shape it according to the grammatical and lexical devices of this language. In the light of this theory it could be argued that it is probably because of the L1 "thinking for speaking" patterns (together with the Goal-bias in human cognition) that native speakers of Polish are practically not able to linguistically conceptualize motion towards a person beyond the speech act participants in an arrival-oriented context by means of G. Although my findings seem to be confirmed in spontaneous speech, where even very advanced Polish speakers of Spanish use C in the context I have already mentioned (indeed, these observations served as an inspiration for the present study), an experiment consisting of elicited narratives is without

any doubt necessary in order to further verify in a statistically measurable fashion the hypothesis of the present paper.

5. Conclusions

In this paper, I analyzed the semantics of C&G from a typological perspective. Drawing on Lewandowski's (2010) and Ricca's (1993) work, I showed that important cross-linguistic differences are implied in the meaning of these verbs (*contra* Miller & Johnson-Laird 1976 and Talmy 2000, *inter alia*): whereas in some languages, such as Spanish or Portuguese, they codify strict deictic information concerning the spatial position of the speaker ("motion towards the speaker" vs. "motion away from the speaker"), in others the deictic center of C can be shifted to other goals of movement, e.g. the addressee or even a goal of movement beyond the speech act participants. Quite importantly, in most Slavic languages, including Polish, the use of C&G does not rely on non-deictic factors. In particular, in Polish C is preferred when the speaker wishes to adopt an arrival-oriented perspective and G, if the motion event is conceptualized from a source-oriented perspective. As a consequence, Polish speakers can choose to think about the same motion event from two different perspectives (that of arrival or that of departure), while no such possibility is available in languages where C&G codify strict deictic information.

In the second part of the article I addressed the implications of this cross-linguistic divergence for SLA. I adopted Slobin's (1996) thinking for speaking hypothesis, according to which different language patterns yield different patterns of thought in the process of expressing and interpreting verbal expressions. The results of the experiment led me to conclude that the role of L1 thinking for speaking in L2 is important even at advanced stages, but it is constrained by some kind of non-linguistic factors, which should be investigated with more detail in the future. Probably, one important factor constraining the acquisition of C&G is the source-goal asymmetry in human cognition.

Finally, as far as future research is concerned, this should without any doubt be directed toward (i) learning and teaching deictic verbs, since, as has been shown, the correct use of C&G in some very specific contexts is almost impossible to acquire; (ii) productive use of language (e.g., elicitation of narratives), which would highlight possible contextual differences in the correct-incorrect use of deictic verbs of L2 learners, and

(iii) the relation between deictic verbs, SLA and source-goal asymmetry in human cognition.

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Contact information:

Wojciech Lewandowski
CLT Centre de Lingüística Teòrica
Universitat Autonoma de Barcelona
Edifici B, Campus UAB
08193 Bellaterra, Spain
e-mail: woj(dot)lewandowski(at)gmail(dot)com

Appendix 1

Examples of the cloze test
1. Hola, ¿cómo ____ llamas?
    a) te   b) se   c) lo   d) él
2. – No tengo ni idea. – Yo ____
    a) también   b) también no   c) tampoco   d) no sé
3. La madre de mi madre es mi ____
    a) tía   b) cuñada   c) abuela   d) sobrina
4. Me parece lógico que no ____ hablar.
    a) quiere   b) ha querido   c) quiera   d) quise
5. Estaba en paro porque ____
    a) lo despidieron   b) lo han despedido
    c) lo despidieran   d) lo habían despedido
6. Ese futbolista es muy joven y ____ aún un poco ____
    a) es/negro   b) es/verde   c) está/negro   d) está/verde
7. Pedro se ha ____ loco y ha dejado el trabajo.
    a) hecho   b) puesto   c) vuelto   d) transformado
8. Yo no estoy de acuerdo con ____ de la casa.
    a) tal   b) ello   c) esto   d) lo

Appendix 2

Examples of the judgment task
1.   Juan, ven aquí, por favor. (Condition 1, correct sentence)
       'Juan, COME here, please'
2.   Gracias por tu visita. ¿Cuándo vas de nuevo a mi casa? (Condition 1, incorrect sentence)
       'Thanks for your visit. When are you going to GO again to my place?'
3.   ¿Te apetece venir con nosotros al teatro esta tarde? (Condition 3, correct sentence)

'Would you like to COME with us to the museum this afternoon?'

4.   ¿Te apetece ir con nosotros a Ámsterdam el mes que viene?
(Condition 3, incorrect sentence)
'Would you like to GO with us to Amsterdam next month?'

5.   A las cuatro vamos desde mi casa a Plaza Cataluña. (Condition 4, correct sentence)
'At four we will start GOING from my place to the Catalonia square.'

6.   Ponte la chaqueta. Tenemos que venir ya. Juan nos está esperando. (Condition 4, incorrect sentence)
'Put on your jacket. We have to COME now. Juan is waiting for us.'

7.   (Una conversación entre Pedro y Juan en casa de Juan)
-     ¿Qué tal la fiesta que hiciste ayer en tu casa, Pedro? ¿Fue mucha gente?
(Condition 5, correct sentence)
(A conversation between Pedro and Juan at Juan's place)
-     What about the party you made yesterday at your place, Pedro? Did many people GO?

8.   (María está en Barcelona y está hablando por Messenger con su amiga Natalia. Natalia está en un pueblo cerca de Barcelona)
-     Hola Natalia, esta noche hago una fiesta en mi casa. ¿Te quieres pasar?
-     ¿En tu casa? Claro que sí, pero vendré sobre las doce.
(Condition 5, incorrect sentence)
(María is in Barcelona and she is talking by Messenger with her friend Natalia. Natalia is in a town near Barcelona.
-     Hello, Natalia, there is a party at my place this night. ¿Would you like to pop in?
-     At your place? Sure, but I will COME about twelve.