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From Spanish <*estar* + gerund> to Italian <*stare* + gerund>. When teaching to unlearn is needed

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Abstract: The Spanish periphrasis <*estar* + gerund> is formally similar to Italian <*stare* + gerund> but has a wider range of aspectual values (it can express durativity, in addition to progressivity) and is compatible with more tenses (perfectives, in addition to imperfectives). As an effect of transfer, L1Spanish learners of Italian often use <*stare* + gerund> to express durativity and combine it with perfective tenses, thus producing incorrect utterances like **Sono stato studiando*. In this paper we report an acquisitional study which reveals that input exposure, intensity of L2 use, and non-focused instruction may not be sufficient to pre-empt the transfer and unlearn the erroneous uses of the periphrasis. Based on this result, we propose that a focused teaching intervention is needed. A small-scale pedagogical study based on a Cognitive Linguistics inspired teaching approach gives encouraging results.

Die spanische Periphrase <*estar* + Gerundium> ist strukturell ähnlich wie die italienische Periphrase <*stare* + Gerundium>, bietet aber eine größere Bandbreite an Aspektfunktionen (sie kann neben Progressivität auch Dauer ausdrücken) und ist mit mehreren Zeitformen (zusätzlich zu imperfektiven auch perfektiven Zeitformen) kombinierbar. In diesem Artikel berichten wir über eine Fremdspracherwerbstudie, die zeigt, dass die Input-Exposition, die Anwendungsintensität der L2 ohne die Anwendung von *noticing* Strategien möglicherweise nicht ausreichen, um der negative Transfer zu verhindern und die fehlerhafte Anwendung der Periphrase zu verlernen. Auf Basis dieses Ergebnisses wird eine Intervention vorgeschlagen, die auf den Einsatz von *noticing* Strategien setzt. Eine aus einem kleinem Sampling basierten didaktische Studie, die auf einen von der kognitiven Linguistik inspirierten Lehransatz gründet, liefert bereits vielversprechende Ergebnisse.

Keywords: Progressive periphrasis, Italian, Spanish, unlearning, aspect; progressive Periphrase, Italienisch, Spanisch, Verlernen, Aspekt.



1 Introduction¹

Research in cognitive science shows that we retrieve and organize new information from the world by relying on previously-structured cognitive schemata, and that the more useful in the individual's experience these schemata have been, the more likely they are to be re-employed to analyze new incoming information (cf. Hohwy 2013: 17–18; Seligman/Railton/Baumeister/Sripada 2013). Nevertheless, these schemata and the knowledge they contributed to build need, at times, to be discarded as they can be conflictual and not aligned with constant environmental changes. The term "unlearning" refers to a cognitive process that enables the individual to inhibit and hinder – but, crucially, not necessarily to forget – past knowledge and behavioral routines that have become obsolete and may undermine new knowledge acquisition, therefore affecting the adaptation to environmental change (cf. Grisold/Kaiser 2017; Hafner 2015).

In second language (L2) learners, the same inhibitory processes are activated to avoid code-mixing and first language (L1) transfer during language production and comprehension (cf. Zirnstein/van Hell/Kroll 2018). L2 learners need, in fact, to inhibit L1 processing habits that may lead to L1-L2 conflict and overlapping. Therefore, also while acquiring an L2, individuals do not unlearn an L1 property or structure in the sense that they forget it, but, rather, they inhibit its activation in L2 contexts that potentially but wrongly trigger it. The inhibitory control of automatic L1 linguistic processes is cognitively demanding, especially when the L1 and the L2 are closely related and when the learners are less proficient in the L2 (cf. Abutalebi et al. 2013: 910; Jarvis et al. 2013: 293). In closely related languages, where most L2 processing assumes heavy transfer from L1 procedures (cf. Ringbom/Jarvis 2009), suppressing the transfer of a specific L1 feature when so many others are unproblematically carried over to the L2 may prove to be a very difficult undertaking. Moreover, input-related problems exacerbate the difficulty of unlearning, especially when learners have to avoid overgeneralizing a property or structure that is more general or has a wider scope in the L1 than in the L2. In this case, interlanguage development is driven by an indirect negative evidence. That is, learners have to notice the *non-appearance* of an L1 form in the L2, or the *non-appearance* of an L1 function or meaning associated with an L2 item which displays a formal resemblance to an L1 item (cf. Della Putta 2019: Robenhalt/Goldberg 2016; see Section 2 below); the latter task is especially challenging in the case of closely related

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languages. This is a significant problem² because unlearning on the basis of indirect negative evidence is a mental operation that learners may fail to accomplish even after long exposure to the L2 (cf. Judy 2011).

Building on this definition and operationalization of unlearning, in this paper we analyze in a systematic way, and on an experimental basis, the unlearning of an aspectual value of the Spanish periphrasis <*estar* + gerund> by L1 Spanish learners of L2 Italian.

Verbal systems of Romance languages are characterized by the presence of many periphrases, which are grammaticalized to different extents and may convey a variety of aspectual features (cf. Dietrich 1973; Squartini 1998). We focus here on Italian <stare + gerund>, and its acquisition by Spanish-speaking learners. The reason why this periphrasis is particularly interesting from an acquisitional perspective is that Spanish has the periphrasis <estar + gerund> which, despite being formally very similar, conveys aspectual values that only partly overlap with those of Italian <stare + gerund>. More specifically, the Spanish periphrasis can be used to express a wider array of aspectual values compared to the Italian one, and is compatible with more tenses. This leads L1Spanish learners of Italian (SLI henceforth) to use <stare + gerund> in ways which would be perfectly grammatical in Spanish but are not grammatical in Italian: the challenge for them is therefore to unlearn such ungrammatical uses.

The first part of this article is dedicated to a purely acquisitional study (Section 3), in which the theoretical issue of the learnability of the aspectual values of L2 Italian *<stare* + gerund> drives the research hypothesis and questions. Given the poor acquisitional results highlighted by this study, we devise a Cognitive Linguistics inspired teaching intervention to alleviate SLI difficulties with the aspectual values of Italian *<stare* + gerund>. We test this pedagogical intervention in a small-scale study which is presented in the second part of the article (Section 4).

Before presenting the acquisitional study and the pedagogical intervention, it is important to briefly introduce the Italian periphrasis under investigation and its Spanish counterpart.

Scholars refer to this complex mental operation, in which L2 input plays a minor role, as an "unlearning problem", a "logical problem in language acquisition" or a "pre-emption problem" (cf. Gabriele/Alemán Bañon/López Prego/Canales 2015).

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2 Italian <*stare* + gerund> and Spanish <*estar* + gerund>

The literature on the gerundival periphrasis under investigation is extensive, both on Italian and Spanish and on the comparison between Italian and Spanish. While we do not attempt to review such a vast literature, it is nevertheless useful to identify the issues that are relevant for our study.

Like other Romance periphrases, *<stare* + gerund> was absent in Classical Latin and was only rarely attested in postclassical Latin (cf. Brianti 1992; Ramat/Da Milano 2011; Škerlj 1926), its diffusion being a Romance innovation (cf. Giacalone Ramat 1995b). The timing of such diffusion was, however, different for Spanish and Italian, as are the aspectual properties of the periphrasis in the two languages. While Spanish *<estar* + gerund> is already attested in the twelfth century and frequently used in the thirteenth century (cf. Yllera 1980), the presence of Italian *<stare* + gerund> cannot be traced before the mid-fourteenth century (cf. Brianti 1992: 263) and its expansion is much more recent; an infrequent construction until the eighteenth century, it grew exponentially in the nineteenth³. The function of the Italian periphrasis has changed considerably over time. Until the nineteenth century *<stare* + gerund> had a durative value and was compatible with perfective morphology, as in the following 16th century example (from Squartini 1998: 74; for a diachronic perspective, see also cf. Bertinetto 1986; Brianti 2000; Durante 1981; Squartini 1990):

(1) Sono stato un poco pensando meco (Pietro Aretino) 'I have been thinking for a while'

In contemporary Italian the durative value is lost: the periphrasis is now only used as an aspectual marker of imperfectivity and, more specifically, it realizes the progressive value, denoting "the situation as on-going at a given relevant temporal point" (cf. Squartini 1998: 75). Consequently, the periphrasis is used with imperfective tenses, as in 0, but is now no longer compatible with perfective tenses such as the *passato remoto* or *passato prossimo*, and uses like those in (1) or (3) would therefore be ungrammatical⁴:

Brianti 1992 places this "explosion" in frequency in the second half of the 19th century, Amato & Lenci 2017 bring it forward to the beginning of that century; for a discussion of different explanations that have been proposed for the increase in frequency, see Titus-Brianti 2016.

⁴ As discussed in detail by Squartini (1998: 127–133), Italian has another periphrasis, <*stare a* + infinitive>, which has a complementary distribution with respect to <*stare* + gerund>, as it can be used in the perfective and durative contexts which are now barred for <*stare* + gerund> (e.g., *Paolo è stato a parlare con Luca per tutta la sera*, 'Paolo has been chatting with Luca all night long; example and translation from Squartini 1998: 130). From an acquisitional perspective, we



(2) Luigi sta dormendo.

Luigi stay-PRS.3SG sleep-GER

'Luis is sleeping'

(3) *Luigi è stato dormendo. Luigi is-PRS.3SG stay-PS.PTCP sleep-GER

Unlike Italian, Spanish <*estar* + gerund> (cf. Fernández de Castro 1999; García Fernández 2009; Yllera 1999) is a durative 0 as well as a progressive (5) periphrasis, and is thus compatible with both imperfective and perfective morphology (when used with perfective tenses, it depicts ongoing events over a determined period of time with an end point, as in (4)):

- (4) Luis ha estado durmiendo. Luis have-PRS.3SG stay-PS.PTCP sleep-GER 'Luis has been sleeping'
- (5) Luis está durmiendo. Luis stay-PRS.3SG sleep-GER 'Luis is sleeping'

As Squartini (1998: 65; see also Bertinetto/ Delfitto 1996) notes, Italian <*stare* + gerund> has undergone a process of high formal specialization, which nowadays seems stable and which allows this periphrasis to express only the progressive value. Following Croft's notion of *behavioral potential* (cf. Croft 1990: 95), which maintains that a given structure is more marked if it is less grammatically versatile than another, we can posit the idea that <*stare* + gerund> is more marked than <*estar* + gerund>, as the latter is more versatile than the former, as seen above.

The compatibility (in Spanish) vs. incompatibility (in Italian) with perfective morphology is in fact the most striking difference between the periphrases of the two languages (for a discussion of further differences, see Squartini 1998: 73-88; cf. Lombardini 2004; Musto/Ripa 2005), and is frequently the cause of errors in the L2 Italian production of SLI.

The formal similarity favors a positive transfer effect from which SLI learners benefit: although in L2 Italian <*stare* + gerund> is generally acquired late compared to other verb forms (cf. Giacalone Ramat 1995a), this periphrasis appears early in the interlanguage of SLI. However, SLI have to *unlearn* using <*stare* + gerund> to express durativity. That is, they have to notice two pieces of indirect negative evidence (cf. Della Putta 2019), i.e. that in the Italian input <*stare* + gerund> is *not*

note that because < stare a + infinitive> is quite infrequent in standard Italian use, it is unlikely to be prominent in the input of L2Italian learners.



used to convey durative values, and is therefore not used with perfective forms of stare. Furthermore, SLI have to move from a more versatile and hence less marked construct - <estar + gerund> - to a less versatile and more marked one - <stare + gerund> -, and this operation is considered a difficult one in second language research (cf. Han 2014). These difficulties seem to be confirmed by the fact that SLI do tend to use <stare + gerund> with perfective morphology, thus producing ungrammatical sentences like example 0 above (see Bailini 2016: 99). This difficulty in acquiring an L2-like use of <stare + gerund> is however an observation that needs to be experimentally verified.

3 Acquisitional study

3.1 Research hypothesis and questions

Our study aims at testing the following research hypothesis:

The unlearning of the durative aspect of <estar + gerund> and its combination with perfective tenses is a difficult acquisitional task for SLI.

To test this hypothesis, we will measure difficulty of acquisition based on two different dimensions of knowledge:

- a) representational, as revealed by a timed acceptability judgement task (AJT).
- b) explicit and self-reflexive, as revealed by an immediate recall test (IRT) that aims to ascertain the perception of the use of *<stare* + gerund> combined with durative aspectual values and its presence in perfective phrasal contexts.

We also investigate the role played by input in the unlearning process. This is explored by observing participants in different learning contexts: in the home country vs. abroad. That is, we aim to answer the following research question:

RQ1: Do SLI who study Italian abroad (i.e. in Italy) unlearn the properties of <estar + gerund> under scrutiny with more ease than their peers who study Italian in their home country?

3.2 Methods

3.2.1 Design

The research consisted of 3 phases: 1) sociolinguistic interview and assessment test of the participants' proficiency level of Italian; 2) delivery of the AJT and 3) IRT where the acceptability judgements were discussed. The sociolinguistic interview and the test allowed us to divide the SLI into six different groups, as reported below.



3.2.2 Participants

132 SLI were originally enrolled in the study. All of them agreed to participate voluntarily in all three phases of the research. Nevertheless, 24 SLI had to be excluded because, for organizational issues, they did not participate in the IRT. The remaining 108 SLI⁵ were divided according to the level of proficiency in Italian and the context of study, i.e. study abroad or at home. The proficiency level of each student was assessed by two criteria. The first was the result of the Analisi delle strutture di comunicazione ('Analysis of communication structures') section of a B1 CILS test (Certificato di Italiano come Lingua Straniera, an official certification provided by the University for Foreigners of Siena). In this section of the test, lexical, grammatical, and pragmatic knowledge of Italian is assessed according to a scale ranging from 0 to 65 points. For our purposes, the students' results were classified as follows: 0 to 25 points – beginner; 26 to 51 points – intermediate and 52 to 65 points – advanced level (see Rastelli 2019 for very similar assessing criteria of participants' proficiency levels). These data were cross-checked with the declared amount of time dedicated to the formal study of Italian, operationalized as the number of months/years of formal learning (either in a class or with a private teacher) of four to six hours of lessons per week. The amount of study was classified as follows: four to eight months - beginner; one year to two years -intermediate; two to four years - advanced. In 23 cases the CILS test results and the amount of study did not agree, with the declared time of study placing 20 out of the 23 SLI in a higher proficiency level; the remaining 3 cases were the opposite. In both cases, we classified the students according to the results of the CILS test.

With regard to the study context, study abroad SLI studied Italian in various settings (mainly universities, but also private schools) for at least 80 % of the time declared, and they all had frequent personal interactions with Italians. Study at home SLI, on the other hand, studied Italian at their home University and/or at public or private language schools, had not spent more than one month of their life in Italy, and did not declare frequent personal interactions with Italians.

Regarding knowledge of languages other than Spanish and Italian, 92 SLI declared some knowledge of English, a basic or intermediate knowledge of German (7 participants), French (14 participants), Chinese (2 participants) and Catalan (12 participants). None of the participants was native bilingual Spanish-Catalan. The mean age of the participants was 31.2 years. Table 1 reports the characteristics of the SLI:

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⁵ Part of the data from the acquisition study was collected by Giada Albanesi during the writing of her MA thesis, defended at the University of Pavia, see Albanesi 2018.



Table 1: Number of participants per context of study and proficiency level.

Context of study	Proficiency level	Number of participants	
	Beginner	24	
Abroad	Intermediate	18	
	Advanced	16	
	Beginner	18	
At home	Intermediate	18	
	Advanced	14	

3.2.3 Timed acceptability judgement task (AJT)

In the second phase of the research, we used an AJT to measure participants' implicit knowledge of the ungrammaticality of the durative use of the *<stare* + gerund> periphrasis. Before starting this second step, we wanted to make sure that participants were not given explicit instruction aimed at unlearning the durative value of *<estar* + gerund> and its possible combination with perfective tenses. We therefore checked the textbooks used by the students in their courses, and verified that they contained no L1-L2 contrastive analysis of the differences between the two periphrases (for similar findings cf. Daloiso 2018). We also interviewed the teachers, who reported no explicit teaching of this L1-L2 discrepancy. Despite these precautions, the lack of explicit instruction cannot be absolutely certain, as in two cases we did not manage to analyse the textbooks, nor were we able to interview two of the teachers. We will return to these issues in the final section of the article.

We decided to use a timed AJT because timing is thought to minimize the influence of explicit knowledge as it does not allow recourse to metalinguistic information (cf. Ellis 2006). This was particularly important in our study because, as discussed above, we could not be completely sure that the participants had not received explicit instruction about the correct use of *<stare* + gerund>.

The AJT included three types of items: 10 practice items in Spanish aimed at familiarising participants with the procedure, and 50 Italian items, of which 30 were fillers and 20 were target items. The 30 filler sentences were built using the errors most frequently made by SLI, whereas the 20 target items were divided into 10 grammatical and 10 ungrammatical sentences. Grammatical sentences (6) displayed the correct way to express a concluded durative event in the past in Italian, i.e. with a simple perfective form such as *passato prossimo* (the *<stare* + gerund> periphrasis is therefore not present):

(6) Ho studiato per cinque ore.

have-PRS.1SG study-PS.PTCP for five hour.PL

'I have been studying for five hours'.



Ungrammatical sentences (7), on the contrary, are sentences in which a concluded durative event in the past is expressed by resorting to the *<stare* + gerund> periphrasis:

(7) *Sono stato studiando per cinque ore.
be-PRS.1SG be-PS.PTCP study-GER for five hour.PL
'I have been studyng for five hours.

As is customary in AJT studies (cf. among others, Gutiérrez 2013), we included in our design the grammatical counterpart of the target ungrammatical items. It is worth noting that these 10 grammatical items are correct both in Italian and in Spanish, and therefore do not contradict students' L1 grammar. We briefly notice here that Spanish speakers *prefer* to use <*estar* + gerund> with perfect tenses instead of simple verbal forms when there is a time complement of the type por / durante + INTERVAL OF TIME to emphasize the continuity of the action in the past and to reduce the possible telic component of the verb (cf. Real Academia Española 2010: 432–433). The use of *<estar* + gerund> in these phrasal contexts is therefore not mandatory in Spanish, but is a preferred alternative to the use of simple, non-periphrastic past tenses. Thus we can consider as experimental target items only the 10 ungrammatical sentences, and our research hypothesis and question will be verified only according to these. The 50 experimental items contained a maximum of seven words, and their lexicon and grammar were carefully controlled so as not to include unknown words or structures for all the three levels of proficiency. The participants sat at a computer where the sentences appeared, randomized and separated by a 2second pause. They were asked to judge the sentences as correct or incorrect as quickly as possible. Every ten sentences a self-paced pause was inserted in order to mitigate task fatigue. The temporization of the AJT was defined according to Shiu, Yalcin & Spada (2018) protocol. We asked 7 Italian informants to judge the 10 experimental target items and we recorded their response times, which averaged at 3.32 seconds. We increased this response time by 20 %, to 3.9 seconds, and rounded this up to 4 seconds, which became the time limit we gave the participants to judge the sentences.

3.2.4 Immediate recall test (IRT)

A few minutes after the end of the AJT we checked with the SLI the judgements they had given to the 10 experimental target items by conducting the IRT. Specifically, the following questions were addressed to the informants:

- 1) You said that this sentence is incorrect in Italian: what mistakes did you find? Can you comment on your answer?
- 2) Do you remember ever hearing a sentence like this (e.g. *sono stato ballando tutta la notte) in Italian?



3) Has anyone ever told you/explained that it is an incorrect sentence in Italian?

Question 1) is designed to check if the mistake detected by the participants during the AJT was the erroneous use of *<stare* + gerund>, and question 2) and 3) are asked to have an insight into students' perception of the ungrammaticality of the use of *<stare* + gerund> to express durativity. The results of the AJT and IRT are presented in the following section.

3.3 Data analysis and results

3.3.1 Results of the AJT

AJTs were scored with one point for each correct response, and zero for incorrect responses. The score therefore ranges from 0 to 10 points. Answers varying more than 2.5 SDs from the mean of the same participant in each experimental condition were excluded, which led to the rejection of three responses. The AJT scores were compared with the answers given by each SLI to question 1) of the IRT. This allowed us to detect inconsistencies between the AJT and IRT, and to adjust the final score of the AJT accordingly.

In 79% of the inconsistent cases, the SLI detected an erroneous use of the auxiliary verb of the periphrasis, which in Spanish is a form of *haber* - 'to have' -, whereas in Italian it is a form of *essere* – 'to be'.⁶ The cases in which the SLI judged the sentence as incorrect not because of the erroneous use of *<stare* + gerund> were changed to incorrect responses. In table 2 we summarize these occurrences.

Table 2: Answers changed after the immediate recall interview.

Study context	Proficiency level	Total answers	Answers changed (number and percentage)
	Beginner	240	77 – 32%
Abroad	Intermediate	179 (one excluded for $SD > 2.5$)	26 - 14%
	Advanced	159	8 - 5%
	Beginner	178 (2 excluded for $SD > 2.5$)	53 – 29%
At home	Intermediate	180	38 - 20%
	Advanced	140	5 - 3%

To analyse the adjusted data, we use a two-factor univariate ANOVA⁷ with two independent variables (*study context* and *proficiency*) and one dependent variable (*AJT scores*). The descriptive statistics are reported in table 3.

⁶ Auxiliary selection is a typical problem of SLI, and it persists in their interlanguage far beyond beginner level, cf. Donato/Pasquarelli-Gascon 2015.

All the ANOVAs preformed in this paper had an alpha level set at .05. All the dataset satisfied the assumptions of normality and homogeneity of variance. When sphericity was not assumed, we used the Greenhouse-Geisser correction.



Table 3: Descriptive statistics of the AJT test.

Study context	Proficiency level	N	Mean score	SD
	Beginner	24	1.67	.96
Abroad	Intermediate	18	2.17	.98
	Advanced	16	4.94	.99
	Beginner	18	2	1.4
At home	Intermediate	18	2.78	1.2
	Advanced	14	5.07	2.1

Proficiency turns out to have a significant effect on AJT scores: F(2, 107) = 54.7, p < .01, $\eta 2_p = .46$, while study context and the interaction study context*proficiency show no significant effects: F (1, 107)= 2, p= .1, $\eta 2_p$ = .01 and F (2, 107)= .28, p= .7, η_{2p} = .005 respectively. A one-factor univariate ANOVA was run separately for the two groups study abroad and study at home with one independent variable – proficiency – and one dependent variable – AJT scores. For the study at home group, the results show significant effects of *proficiency*, F (2, 49) = 15.2, p< .01, $\eta 2_p = .39$, but with small effect sizes. A post hoc Bonferroni test shows significant differences between the intermediate and advanced groups only (Mean difference I-J= 2.7, p= .01). The results for the study abroad group are similar: proficiency has a significant effect on AJT scores, F (2, 57)= 57.7, p< .01, $\eta 2_p$ = .67, this time with medium effect sizes. A post hoc Bonferroni test shows significant differences between the intermediate and advanced groups only (Mean difference I-J= 2.2, p= .01). The analysis reveals no effects of study context on AJT scores variation as it does not play a role in helping pre-empt the erroneous transfer of the durative aspect from <estar + gerund> to <stare + gerund>. Indeed, the improvement between these two groups in the AJT is very similar for the two study contexts: +3.27 points for the study abroad SLI and + 3.07 points for the *study at home* SLI.

This allows us to answer our research question negatively: our data support the low reliability of indirect negative evidence in triggering interlanguage development when moving from a less marked structure (in L1) to a more marked structure (in L2), even if this evidence is potentially more noticeable in the case of increased input exposure.

3.3.2 Results of the IRT

Let us now consider the IRT data, i.e. the second dimension of knowledge we use to confirm or disconfirm our research hypothesis. The answers given to the second question ("Have you ever heard a sentence like *sono stato ballando per tutta la notte?") are summarized in table 4. To make these data comparable to those of the AJT, we assign one point to every "no" answer and zero point to every "yes" answer. Unsure answers are given .05 points.



Table 4: Answers given to the second IRT question.

Study context	Proficiency	Answer: Yes (num-	Answer: No (number	Answer: don't know (num-	Points scored
		ber and %)	and %)	ber and %)	
	Beginner (24)	14 - 58.3%	4 - 16.6%	6 - 25%	7/24
Abroad	Intermediate	8 – 44.4%	6 – 33.3%	4 - 22.2%	8/18
	(18)				
	Advanced (14)	4 - 25%	9 - 56,2	3 - 18,7%	11.5/14
	Beginner (18)	11 - 61.1%	3 - 16.6%	4 - 22.2%	5/18
At	Intermediate	8 - 38.8%	6 - 33.3%	4 - 27.7%	8/18
home	(18)				
	Advanced (14)	3 - 21.4%	8 - 57.1%	3 - 21.4%	10.5/14

A univariate ANOVA with *points scored* as dependent variable and *proficiency* as independent variable was run to ascertain if *proficiency* plays a role in the variation in the SLI's answers. The data for the *study abroad* group reveal a significant effect of *proficiency* on the score variation, F (2, 57)= 3.5, p= .03, η 2_p= .11, although with small effect size. A Bonferroni post hoc test reveals a significant difference between the beginner and the advanced groups only (*Mean Difference* I-J= .8, p= .029). Very similar results are reported for the *study at home* group: *proficiency* has a significant effect on the IRC trend, but with very small effect size: F(2, 49)= 3.6, p= .03, η 2_p= .13. A Bonferroni post hoc test reveals a significant difference between the beginner and the advanced groups only (*Mean Difference* I-J= .4, p= .023).

SLI's perception and awareness of the ungrammaticality of the use of <stare + gerund> with durative aspectual values improve alongside their general level of proficiency, but we notice that even at advanced levels the awareness of the non-existence in Italian of such a use reaches only 57% correctness, and a certain degree of uncertainty remains. This observation is further supported by the small effect sizes of the effect of *proficiency*. If we look at the results of the AJT, similar conclusions can be drawn: increased general proficiency has a statistically significant effect in helping SLI improve their judgements, but here, again, we notice small effect sizes and a general, positive effect only between intermediate and advanced SLI. Furthermore, neither advanced group exceeds 50% correctness even after years of formal study and use of Italian, and, as seen above, the different study context does not play a significant role. Our data suggest that unlearning is possible, as we witness an accrued ability to recognise the ungrammaticality of *<stare* + gerund> associated with durative aspectual values. However, improvement is very slow and clearly at risk of selective fossilization (cf. Han 2014). This supports our research hypothesis, and calls for the need for focussed pedagogical intervention in order to at least speed up interlanguage development.

Indeed, the answers given to the third IRC question ("Has anyone ever told you that a sentence like *sono stato ballando per tutta la notte is ungrammatical?") reveals



the need for either some direct negative evidence or a more explicit intervention: 58% of the SLI do not remember ever having been taught or corrected about *<stare* + gerund> , 17% remember a correction or an explicit consideration of L1-L2 discrepancies, 15% remember having been told that *<stare* + gerund> and *<estar* + gerund> are functionally identical structures, and 10% of SLI could not answer.

4 A small-scale pedagogical study

Based on the theoretical considerations in Section 2, and given the results of the acquisitional study, we devised a small-scale pedagogical study to investigate whether a focussed pedagogical intervention can help alleviate the transfer-generated problems under scrutiny. We used a Cognitive Linguistics inspired pedagogy for the following reasons.

Cognitively grounding any pedagogical grammar, i.e. helping learners recognise, understand and internalise the cognitive mechanisms that govern L2 grammar, has been proven to be particularly effective when L1 and L2 constructions differ in terms of temporal and aspectual features, or in the encoding of motion events and illocutionary force intensity (cf., inter alia, Hijazo-Gascón/Llopiz-García 2019; Roche/Suñer 2016; Tyler/Ortega 2018;). Moreover, when dealing with complex form-meaning pairings such as periphrases, collocations, idioms and phrasal verbs, a more explicit pedagogical intervention aimed at revealing and actively discovering and practising the meanings and functions mapped onto such constructions may be needed, as it is often difficult for learners to notice and therefore integrate them in their interlanguage (cf. Wolter/Yamashita 2018). Furthermore, L1-L2 formal similarities associated with functional differences may exacerbate these difficulties, leading learners to see non-existing functional parallels. A Cognitive Linguistics based pedagogy can be optimal in such cases because: 1) it recognizes the usefulness of cross-linguistic comparisons in L2 teaching, but does not limit it to a simple contrastive analysis: in fact, it recognizes the lingua-cultural value of language variation, and acknowledges the importance of integrating into pedagogical practice a reflection on how different languages may use different cognitive mechanisms – and not only structures – to construct similar meanings; 2) consequently, it helps learners recognize and understand the cognitive mechanisms and rules of the L2 and also of their L1, which they may not necessarily be aware of, and 3) it simplifies the cognitive complexity of some linguistic mechanisms recurring to diagrams, drawings and animations which are aimed at making more transparent and learnable the relevant aspects of the conceptual motivation of grammar. The introduction of such techniques into the L2 classroom is useful to reduce the inner complexity and



the apparent arbitrariness of some grammar rules and make the potential L1-L2 discrepancies explicit and cognizable (cf. Della Putta 2015; Roche/Suñer 2016).

Lastly, we opted for a Cognitive Linguistics inspired intervention because there is convincing evidence that less intrusive Focus on Form (cf. Loewen 2011) techniques have little effect in altering interlanguage development when unlearning L1 properties is involved. For instance, Della Putta (2019) found that Textual Enhancement is ineffective for unlearning over-generated L1 features due to asymmetrical properties of Italian and Spanish. Similarly, the studies of Trahey and White (1993) and Trahey (1996) revealed that Input Flooding alone was not effective enough to help French-speaking learners pre-empt the erroneous transfer of all the L1 properties of the verb movement parameter to L2 English. Given this evidence, Della Putta (2015) devised a study dedicated to the unlearning of over-generated tempo-aspectual values of L1 Spanish periphrasis transferred to L2 Italian. In this study, pedagogical solutions based on Cognitive Linguistics principles were positively received by the students and proved to be helpful in enhancing their awareness of the interference issues these L1-L2 differences generate.

Based on the considerations above, we formulate here the second research question of our study:

RQ2: is a Cognitive Linguistics inspired pedagogical intervention useful in helping SLI pre-empt the transfer of the durative aspectual value from <estar + gerund> to <stare + gerund>?

4.1 Method

4.1.1 Participants and setting

We enrolled 32 SLI. All 32 participants were art students at the *Accademia di Belle Arti di Brera* in Milan, where foreign students have to take a 60-hour Italian course consisting of 5 hours per week over one semester. Participants were part of three different courses that took place, respectively, from February to June 2018 (2 courses) and from September 2018 to January 2019, and were taught by one of the authors (Della Putta). The experimental group (group A) comprises 20 SLI, students in the first two courses. The control group (group B) is formed of 9 SLI, students from the third course. The high number of SLI in the two classes from which group A was created justified, in the eyes of non-SLI students, the ad hoc treatment under scrutiny (see below). All the SLI enrolled can be considered a *study at home* group as they had studied Italian in Spain for at least one year in extensive courses before their arrival. However, they took the B1 CILS test like the participants in the first part of this study, and they all fell into the intermediate group. The second



placement parameter was also fulfilled, as all participants had previously studied Italian for at least one year and for no more than 2 years.

4.1.2 Instructional treatment

The pedagogical intervention lasted 6 weeks and was integrated into the syllabus of an Italian language course designed for university students with an intermediate level of L2 Italian. Within a notional-functional syllabus, we inserted some activities aimed at making SLI aware of the ungrammaticality of *stare* + gerund> associated with durative aspectual values.

In the first activity we used the following diagrams and drawings (Figure 1), which are designed to make clear and cognizable the difference between the progressive and the durative aspect. The diagrams also show the double aspectual value mapped onto the Spanish <*estar* + gerund> construction. In this activity we worked on the SLI's L1. Instructions and comments were given in Italian and Spanish, and are here reported in English.

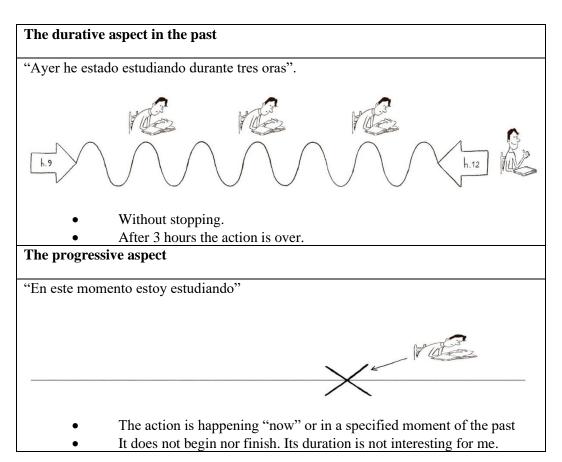


Figure 1: First activity: durative and progressive aspect in Spanish.



These explanations were given twice during the first week of the treatment by using two different sets of sentences, one with the verb *estudiar* – 'to study', shown in Figure 1, - and one with the verb *hacer* – 'to do'. In the second week, an Italian text was handed out for comprehension activities in the two classes. This text included sentences with the *<stare* + gerund> periphrasis expressing the progressive aspect, and sentences with the simple past (*passato prossimo*) expressing the durative aspect in the past. After reading the text, SLI were asked to underline these sentences and to write them on a blank sheet of paper.

We then used the same diagrams as in the first activity, this time applied to Italian, to make evident the differences between Spanish and Italian regarding the aspectual values of the two periphrases (see Figure 2).

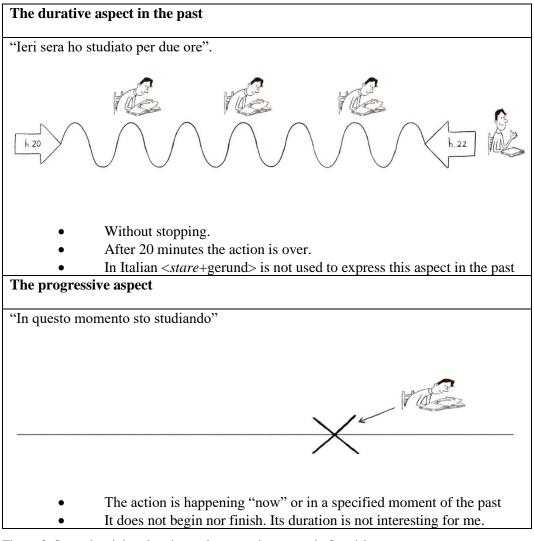


Figure 2. Second activity: durative and progressive aspect in Spanish.



In the following lesson, SLI were asked to depict and linguistically exemplify the resemblances and differences in the use of the two periphrases under scrutiny. The outcomes were heterogeneous, as some SLI drew more creative scenes where the aspectual values of the actions were pictorially represented and exemplified by sentences, whereas other SLI simply schematized the differences between the two languages.

In the third week, SLI were asked to invent 4 pairings of sentences similar to the ones previously analysed, both in Italian and Spanish. The Spanish sentences had to comprise both aspectual values of *<estar* + gerund>, whereas in the Italian ones the use of the periphrasis in durative contexts had to be avoided. Corrections were given after this exercise.

In the fourth week, explicit corrections of the erroneous use of *<stare* + gerund> to express the durative aspect were given. This happened three times in five hours of lesson.

In the fifth and sixth week two exercises of transcodification from picture to language were given. SLI were asked to work in pairs and to describe, in both Spanish and in Italian, the actions represented in two pairs of pictures. During this exercise, the erroneous use of *<stare* + gerund> was detected and corrected four times. Table 5 recaps the activities used and their distribution.

Table 5. Treatment overview.

Time period	Activity	Objective
1 st week	Use of schema and drawings.	Making SLI aware of the aspectual values expressed by <i><estar< i=""> + gerund>.</estar<></i>
2 nd week	Textual analysis and use of schema and drawings.	Helping SLI discover and become aware of L1-L2 differences.
3 rd week	Free pictorial and linguistic production.	Having SLI produce the L1-L2 differences seen before.
4 th week	Explicit corrections.	Improving accuracy and maintaining the focus on the issue at stake.
5 th week	Transcodification exercise, picture → language.	Keeping the focus on the issue at stake. Pushing SLI to produce correct sentences.
6 th week	As 5 th week.	As 5 th week.

4.2 Data analysis and results

The participants were tested three times with an AJT identical in its design to the one in the acquisitional experiment: a pre-test before the treatment, a post-test 2 or



3 days after the treatment, and a delayed post-test administered one month after the treatment. The AJT sentences were manipulated so that they were not the same in the three tests, and are listed in the appendix. The AJTs were scored with one point for each correct response, and zero for incorrect responses. The score ranges from 0 to 10 points. Answers varying more than 2.5 SDs from the mean of the same participant in each experimental condition were excluded, but no answers were rejected. This time, given the need to keep the aim of this experiment concealed, we could not perform an IRT, which in the previous experiment led to the alteration of 20% of answers from correct to incorrect. We acknowledge that this is a limitation of the present study, but we decided not to alter the data in this section in order to have a clear picture of the potential effects of the intervention.

All analyses employ a repeated-measures ANOVA with *time* as between-subjects variable and *treatment* as a within-subjects variable. Table 6 shows the descriptive statistics.

Table 6: Descriptive statistics of the AJT of the experimental group (A) and the control group (B)

	Group	N	Treatment	Mean score	Std. Deviation
Pre-test	A	20	Yes	3.15	1.4
	В	9	No	3.45	.88
Post-test	A	20	Yes	425	.63
	В	9	No	3.,34	1
Delayed-	A	20	Yes	5.3	.92
post test	В	9	No	3.81	1.65

Results of the ANOVA show significant effects for *time*, F(2, 54)= 12.3, p< .01, $\eta 2_p$ = .31, and *time*treatment* interaction, F(2, 54)= 8.2, p= .02, $\eta 2_p$ = .23. The effects of *treatment* are also significant, F(1, 27)= 4.7, p= .04, $\eta 2_p$ = .15. Results of two repeated-measures ANOVAs run independently for each group show significant improvements for group A, F(2, 38)= 35.9, p< .01, whereas no significant improvements for group B are revealed, F(2, 16)= .3, p= .7. A Bonferroni post hoc test shows significant improvements only for group A between each AJT (p always < .05).

Overall, our data reveal a positive effect of the teaching intervention, signalled by the significant interaction *time*treatment*: group A improve their AJT over time, and this seems to be due to the treatment, given that group B does not show any significant improvement. Nevertheless, it has to be noted that the effect sizes are low, and this also emerges from the fact that the treated SLI do not exceed 5.3 points, which is approximately 50% accuracy. The *time*treatment* interaction, however, may lead us to expect that the ability to judge *<stare* + gerund> as ungrammatical when used to express the durative aspect might continue to improve



over time, although rather slowly given the small effect size. Given the data from this study, this hypothesis is necessarily speculative.

Of course, the findings of this research are related to only one of the possible ways to explicitly address these interlanguage development problems. Furthermore, our operationalization of a Cognitive Linguistics inspired pedagogic intervention can take different and more complex forms such as an implementation via animated grammar metaphors (see Suñer & Roche 2019 for an experiment on German light verbs taught through multimedia animation). Further research might therefore address the question whether a different operationalization of an explicit intervention, whether based on Cognitive Linguistics principles or not, might lead to better outcomes in helping SLI unlearn the durative value of *<estar* + gerund> and acquire an Italian-like use of *<stare* + gerund>.

5 Conclusion

The results of the acquisitional study allowed us to confirm our research hypothesis: the unlearning of the durative aspect of <estar + gerund> and its combination with perfective tenses is indeed a challenging task for L1Spanish learners of Italian. This is reflected both by learners' limited implicit knowledge of the ungrammaticality of the durative use of <stare + gerund> (as revealed by the timed acceptability judgement task) and by their equally limited explicit knowledge of the grammatical issue, which is reflected in their judgements about the incorrect uses of <stare + gerund> (revealed in the immediate recall test). Our data also show that the context of study (in the home country Spain vs. abroad in Italy) does not have a significant role in determining the degree to which learners master the periphrasis: this confirms the idea that in an unlearning task based on indirect negative evidence, input exposure plays a minor role in pre-empting erroneous transfers from the L1. Moreover, although general L2Italian proficiency plays a role, we observed that learners have a very limited mastery of the periphrasis even at advanced levels. This suggests that a focused teaching intervention is needed to pre-empt the L1 transfer that prevents learners from perceiving the ungrammaticality of the mapping of the durative aspect onto <stare + gerund> and its combination with perfective tenses. The Cognitive Linguistic inspired interventions that we tested gave encouraging results, as shown by the improved performance by those participants that received explicit training in the correct uses of the Italian periphrasis and the L1-induced incorrect uses. Overall, our study confirms that in L2 acquisition the unlearning of features triggered by L1 transfer is a challenging task, which can however be at least partly overcome thanks to explicit and focussed intervention, rather than by intense input exposure.



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Appendix

Target items used in the experiments.

Table 1: Target items used in the acquisitional study

Sono stato studiando per cinque ore

Sono stato aspettando per un'ora

È stato cucinando per due ore

Siamo stati parlando per tutta la notte

Sono stato lavorando per tutto il giorno

È stato ballando per tutta la sera

Sono stati camminando per tre ore

Sono stati viaggiando per un mese

È stato facendo sport per due ore

Sono stato leggendo per tutta la mattina

Table 2: target items used in the pedagogical study

Pre-test	Post-test	Delayed post-test	
Sono stato studiando per cinque ore	Sono stato ballando per tre ore	È stato leggendo per cinque ore	
Sono stato aspettando per un'ora	È stato leggendo per quattro ore	Siamo stati bevendo birra per cinque ore	
È stato cucinando per due ore	Siamo stati lavorando per tutto il giorno	Siamo stati studiando per tutto il giorno	
Siamo stati parlando per tutta la notte	Sono stato scrivendo per due ore	Sono stato facendo festa per sei ore	
Sono stato lavorando per tutto il giorno	Siamo stati discutendo per tutta la sera	Sono stato ballando per tutta la notte	
È stato ballando per tutta la sera	È stato facendo shopping per cinque ore	È stato viaggiando per due anni	
Siamo stati camminando per tre ore	Siamo stati ascoltando musica per due ore	Siamo stati camminando per tutta la sera	
Siamo stati viaggiando per un mese	Sono stato telefonando per due ore	È stato aspettando per tutta la sera	
È stato facendo sport per due ore	È stato guidando per tutta la mattina	Sono stato facendo sport per tre ore	
Sono stato leggendo per tutta la mattina	Sono stato mangiando per un'ora	Sono stato guardando Youtube per tre ore	

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