The Effects of Corrective Feedback on English as a foreign language Learners' Acquisition of Past Simple Regular and Irregular Forms in the Portuguese Context

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Abstract: Corrective feedback (CF) is a common practice in the foreign language classroom and constitutes a topic of interest for both language teachers – who have to decide whether to correct their students, when and how – and for L2 researchers – who are interested in testing the efficacy of CF techniques in L2 acquisition. The aim of this paper is to present and discuss the results from a study on the effects of three corrective feedback strategies – recasts, prompts and explicit correction – on the acquisition of English past tense regular and irregular forms. 151 9th -grade Portuguese students (and their 5 teachers) took part in the study and were tested in a pretest-posttest design. Results will be presented and discussed in this paper as we seek to contribute to the debate about the effects of CF on L2 acquisition.

Keywords: English as a Foreign Language, L2 development, corrective feedback, recast, prompt, explicit correction, past tense

1. Introduction

Corrective feedback (CF), defined as "responses to learner utterances containing an error" (Ellis 2006: 28), is an everyday practice for language teachers. This article focuses on research on the use and effect of CF in the foreign language (FL) classroom, and has the following aims: to investigate the effects of explicit correction, recasts and prompts on the acquisition of regular versus irregular past tense forms; to examine whether the effects of CF persist over time.

Research on CF has focused on the following five questions, which are also good examples of decisions FL teachers have to take every day, more or less knowingly, when dealing with learners' oral (and written) production:

Should learner errors be corrected?
When should learner errors be corrected?
Which learner errors should be corrected?
How should learner errors be corrected?
Who should do the correcting? (Hendrickson 1978)

2. Background

2.1. *Corrective Feedback types*

CF can take place in different forms. Lyster and Ranta (1997) identified 6 feedback moves in their analysis of 100 hours of interaction in the context of French immersion which are relevant to other instructional settings: *explicit correction* – the teacher supplies the learner with the correct form and makes it clear that an error has occurred:

(1) a. St: *Last weekend I go to the cinema with my friends.
     b. T: You should say "I went to the cinema with my friends."

recast – an implicit reformulation of the whole or a part of the learner's utterance, incorporating the correction of the error:

(2) a. St: *Last weekend I go to the cinema with my friends.
     b. T: Oh, you went to the cinema with your friends.

clarification request – an indication by the teacher that the learner needs to repeat or reformulate his or her utterance:

(3) a. St: *Last weekend I go to the cinema with my friends.
     b. T: Pardon? Can you repeat?

metalinguistic feedback – when the teacher comments on the student's utterance, relying on grammar terminology so as to make him or her aware of the error and thus promoting self-correction:

(4) a. St: *Last weekend I go to the cinema with my friends.
     b. T: What happens to the verb if you're talking about the past?

elicitation – when the teacher directly asks the learner to self-correct, either by asking a question, by leading the student to complete his own sentence or by asking for a reformulation:

(5) a. St: *Last weekend I go to the cinema with my friends.
     b. T: Last weekend, I…

repetition - when the teacher repeats the erroneous utterance, often emphasizing the error by adjusting intonation:

(6) a. St: *Last weekend I go to the cinema with my friends.
     b. T: I go?

Lyster and Ranta (1997) grouped *elicitation*, *metalinguistic feedback*, *clarification request* and *repetition* under another category named *negotiation of form* because these strategies lead the student to self-correct more often. Thus, they provide mainly *negative evidence*. *Explicit correction* supplies the learner with both negative and positive evidence, provided through exposure to the input. Information about what is possible in the language is also provided by *recasts*, as well as negative evidence when they are perceived as indicating the occurrence of an error. The six CF types were later classified into two categories: *reformulations* and *prompts* (Ranta & Lyster 2007). The former category includes recasts and explicit corrections since they provide learners with target reformulations of their erroneous utterance; the latter includes clarification requests, metalinguistic feedback, elicitations and repetitions.

Some researchers (Ellis 2006; Lyster 2004) proposed looking at CF types as *input-providing* (recast and explicit correction) and *output-pushing* (prompts). Input-providing feedback requires the comparison between the form used and the one supplied, whereas output-pushing feedback involves an effort to produce the correct form using long-term memory (Lyster 2007; Ranta & Lyster 2007).

2.2. *Corrective Feedback in L2 acquisition theory*

From a second language acquisition point of view, the issue of CF is closely connected with the discussion about the role that negative evidence – information provided to the learner on what is not possible in a language – plays in language acquisition. The facilitative role of CF is recognized by L2 acquisition theories such as the Interaction Hypothesis (Long 1983, 1996), which perceives CF as facilitative for L2 development as far as vocabulary, morphology, language-specific syntax and L1-L2 contrasts are concerned (Long 1996); the Output Hypothesis (Swain 1985, 1995), in which CF is seen as a way of stimulating learners to notice gaps in their interlanguage systems; the Sociocultural Theory (Lantolf 2006; Lantolf & Thorne 2007), which regards CF as part of a collaborative process in which learners gradually become more independent and able to notice and self-correct their errors; and the Skill-Acquisition Theory, which, similarly, perceives CF as an awareness-raising tool that signals the need for more reliance on rules and helps preventing the automatization of non-target L2 structures

2.3. *Previous research on the effectiveness of Corrective Feedback*

Research on the topic has been carried out both in the laboratory and in the classroom. The results that stem from classroom studies have been mixed, partly due to different methodological choices or to the language structure under analysis. In contrast to many laboratory studies, some classroom studies have shown that prompts are more effective (Ammar 2008; Ammar & Spada 2006; Dilans 2010; Ellis 2007; Ellis, Loewen & Erlam 2006; Havranek & Cesnik 2001; Loewen & Philp 2006; Lyster 2004; Yang & Lyster 2010). On the other hand, some studies found that explicit corrections may be more effective than more implicit feedback moves such as recasts (Sheen 2007; Pawlak 2011; Varnosfadrani & Basturkmen 2009; Yilmaz 2012).

Despite the reservations about its effectiveness (Krashen 1986; Truscott 1996, 1999), CF has established itself as a key component in form-focused instruction (Li 2010; Lyster & Saito 2010; Lyster, Saito & Sato 2013; Mackey & Goo 2007; Russell & Spada 2006). However, its results seem to differ considerably according to the research context (laboratory vs. classroom studies), the instructional setting, the target structure and the learners' individual differences.

Some authors (Lyster & Saito 2010; Lyster, Saito & Sato 2013; Pawlak 2014; Russell & Spada 2006) stress the need for more research carried out in real classrooms and in foreign language contexts as the conclusions drawn from laboratory studies are difficult to apply to actual instructional settings and are, therefore, not easy to translate into didactic recommendations.

Although there are numerous studies about the effectiveness of recasts, research has paid less attention to other feedback moves such as explicit correction, clarification requests and elicitation (Li 2010). Hence, more research including these CF types is needed. The comparison between recasts and prompts has often been the focus of laboratory and classroom research. Nevertheless, work still needs to be done to confirm results from previous classroom research that indicate that prompts have stronger effects than recasts (Lyster & Saito 2010; Mackey, Abbuhl & Gass 2012).

The instructional setting seems to play a relevant role in the provision of CF and in the results thereof. Research on the topic has taken place in numerous teaching contexts. However, we have noticed a lack of research about CF in the Portuguese context as most research projects focused on written corrective feedback (Cardoso 2012; Lima 2010; Morais 2015; Pires 2008; Ramos 2002; Rassul 2008) and were produced as reports related to Supervised Teaching Practices. Some other reports reflect on oral corrective feedback from a teaching perspective aimed at describing feedback events, exploring teachers and students' perspectives on CF and implementing new strategies, but without a pretest-posttest design (Amaral 2012; Baptista 2017; Saldanha 2014).

2.3.1. *Corrective Feedback on English past tense*

Ellis, Loewen & Erlam (2006) focused on the acquisition of the English regular past tense by 3 classes of lower-intermediate adult learners of English as a second language (ESL) in New Zealand (n=34). The classes were randomly divided into a recast group, which received immediate feedback on regular past tense errors implicitly in the form of recasts; a prompt group, which was provided with a repetition of the error and metalinguistic information and a control group, which continued with its regular activities. The students were tested three times: 5 days before the instructional treatment, which lasted for one hour spread over a two-week period, the day after the treatment and 12 days after the instructional treatment. The tests included an untimed grammaticality judgment test (UGJT) and a metalinguistic knowledge test (MKT), both designed to tap the explicit knowledge of the target structure, and an elicited oral imitation test (EIT), aimed at reflecting implicit knowledge. The results showed no significant group differences on the three immediate posttests, whereas on the delayed posttest the metalinguistic group performed better than the recast and the control groups on the EIT on both the grammatical and ungrammatical items. On the UGJT, the metalinguistic group and the control group differed significantly from the recast group concerning the grammatical items. Participants maintained high results on the MKT when comparing with the pretest. Overall, explicit CF was found to be more effective as it is more likely to be perceived as a correction move, thus generating "awareness of the gap between what was said and the target norm" (Ellis, Loewen & Erlam 2006: 329).

To investigate this relationship between noticing of CF and learning of past tense, four groups of high-beginner college level francophone ESL learners (n=99) were assigned to a recast group, a prompt group, a mixed group (a combination of recasts and prompts) and a control group in a classroom quasi-experimental study by Kartchava (2012). Noticing was measured through immediate recall and a questionnaire and learning outcomes were assessed through a picture description and a spot-the- differences task in a pretest, posttest and delayed posttest design. The prompt and the mixed groups noticed more feedback than the recast group. As for the learning outcomes, the past tense accuracy levels increased more than that for questions. Accuracy levels on the first posttest for the prompt and mixed groups improved for both features, while those for the recast group decreased for the two grammatical targets. Results from the delayed posttest had to be discarded. A direct relationship between noticing and learning could not be established, although the qualitative results suggest that noticing may be facilitative for some learners in the acquisition of grammatical targets.

Yang & Lyster (2010), in a study involving 72 EFL Chinese learners, on the acquisition of English regular and irregular past tense found that the prompt group, which received feedback in the form of metalinguistic clues, repetition, clarification request or elicitation, had significant gains on both the immediate and delayed posttests, either oral or written and for regular and irregular forms. The recast group had significant short-term gains in the use of irregular past tense but no significant gains in the use of regular past tense in oral production. In written production, the recast group had significant short and long-term gains in the use of irregular past tense and short-term gains in the use of regular past tense. Because regular past tense has low saliency, the researchers hypothesize that recasts of irregular forms were more easily noticed by learners.

The study reported in this article was also conducted in a classroom context, although it involves a larger number of student participants (n=151) and a longer treatment period (4 weeks). Similarly to the previous studies reported in this section, it focuses on the effects of CF strategies on the acquisition of the English regular and irregular past tense. Based on the previous research, we predict that: explicit CF moves might lead to higher accuracy levels on the posttests than implicit CF moves such as recasts for both regular and irregular past tense; recasts might be more effective for the learning of irregular forms than regular forms. It is also possible that scores for ungrammatical sentences are higher than those for grammatical sentences, which might be interpreted as an indicator of a high level of explicit knowledge and a possible lack of implicit knowledge (Ellis, Loewen & Erlam 2006: 326).

3. Methodology

This study took place in a state school in Portugal. 151 9th -grade students and their 5 teachers participated in the study. The following research question was investigated:

Do recasts, explicit correction and prompts have different effects on the acquisition of regular versus irregular English past tense forms?

3.1. *Research context*

The present study was carried out in the Portuguese context. In Portugal, most students start learning English in primary school. After 2015/2016, English became part of the mandatory education curriculum for the 3rd and 4th –grades and it remains compulsory until the 9th -grade, with a second foreign language often being taught after the 7th -grade, usually French, Spanish or German.

The school that took part in this study is located in the Setúbal district and has approximately 1500 students, most of them Portuguese and only fewer than 10% of other nationalities. Approximately two thirds attend the "terceiro ciclo" (7th to 9th -grade) and one third attends the "ensino secundário" (10th to 12th -grade). Most of the classes follow the regular curriculum, although the school also offers some professional courses. The school has a stable teaching staff of around 100 teachers and another 50 teachers who have short to medium-term contracts. Of the 100 teachers that have a permanent post at the school, about 70% have been teaching for 10 or more years.

3.2. *Participants*

Six classes of 9th -grade students (n=151) and their five teachers took part in the study.

The average age of the students was fourteen years and their first language was Portuguese. Most of the students reported they had been learning English for more than six years, which suggests they started having English lessons in primary school, and that they were learning another foreign language, most of them French. All the classes followed the regular curriculum and had, therefore, the same English syllabus. At the time of the study, the classes had 135 minutes of English lessons per week, distributed in one 90-minute lesson and one 45-minute lesson.

The five participating teachers were experienced EFL professionals who had been teaching English for fifteen to thirty years, mainly in the state school context.

3.3. *Design*

This study compared the effectiveness of three corrective feedback strategies: recasts, prompts and explicit corrections. Group 1 (n=58) received feedback regarding the target structure – English Past Simple regular and irregular forms – in the form of recasts; group 2 (n=55) received feedback in the form of prompts; and group 3 (n=38) in the form of explicit corrections.

To prepare this stage of research, teachers were assigned to the CF strategy that they most naturally provided in class, which was established through classroom observation. The researcher met with each teacher to provide a more detailed explanation about the objectives of the study, the assigned feedback strategy and the data collection tools.

During the instructional treatment, which had the duration of four weeks, each teacher consistently provided the assigned feedback strategy – explicit correction, recast or prompt – when correcting oral English past tense

errors. The same teaching unit was taught during this period as it included tasks designed to elicit the use of English simple past tense and opportunities to hear and read the target structure in context. The students were tested three times: immediately before, immediately after and four months after the instructional period.

3.4. *Target structure*

As far as the target structure under analysis is concerned, regular past tense is formed by adding the inflectional suffix -*ed* to the base form of the verb. Although it is a relatively simple rule to learn, it has low reliability due to the large number of irregular verbs in English (Ellis 2007: 345). Typical errors as far as regular past tense forms are concerned include omission of the grammatical morpheme, when learners produce the base form of the verb (e.g. "play") instead of the past form ("played"), and misformation, when learners add an alternative inflection (e.g. "playing"). Irregular past tense forms are idiosyncratic and may involve no change (e.g. "put-put"), a vowel change (e.g. "sing-sang"), a consonant change (e.g. "make-made"), both (e.g. "keep-kept") or a suppletive form (e.g. go-went). Typical errors involve omission of the past tense marking and misformation in the form of overregularization (e.g. "fall-*falled") (Dulay, Burt & Krashen 1982).

The target structure was chosen for two main reasons. First, the Past Simple remains a problematic structure at intermediate and advanced levels, although it is introduced very early in the curriculum. Secondly, the distinction between regular and irregular past tense forms enables us to study the effects of different CF strategies on rule-based (regular forms) and item-based (irregular forms) linguistic features.

In his account of the dual-mechanism model, Ullman (2001) presented a mental model divided into two separate systems – the lexicon and the grammar – and illustrated it using regular and irregular past tense forms. He argued that the procedural system enables the learning of regular past tense forms as transformations that only require morphological sequencing and whose processing only depends on grammatical rules (e.g. "ask-asked"). Irregular past tense forms which involve morphological transformations other that affixation are hypothesized to be handled by declarative memory and to depend on the mental lexicon (e.g. "go-went").

On the other hand, the connectionist model (e.g. Plunkett & Juola 1999; Rummelhart & McClelland 1986) proposes that both regular and irregular forms are computed by a single mechanism through generalizations from exposure to the input.

3.5. *Data collection tool*

In this stage of research, the aim is to investigate if recasts, explicit correction and prompts have different effects on the acquisition of regular versus irregular English past tense forms.

A *grammaticality judgment task* (GJT) composed of 40 sentences was used: 12 affirmative sentences containing regular verbs, 12 affirmative sentences containing irregular verbs, 2 interrogative sentences including regular verbs, 2 interrogative sentences featuring irregular verbs, 2 negative sentences containing regular verbs, 2 negative sentences with irregular verbs and 8 fillers. In each type of item, half of the sentences were grammatical and the other half were ungrammatical. Participants had to decide if each sentence was grammatical or ungrammatical by ticking the appropriate box. This was a paper-and-pen test which involved no time pressure and required a focus on form.

The test was conducted in class by the researcher after providing the students with some practice sentences. Participants' responses were scored as correct (1 point) or incorrect (0 points).

Grammaticality Judgement Task

Please read the following sentences carefully and decide if they are grammatically correct or incorrect by checking the appropriate box.

	Item	Correct	Incorrect
1.	Jane Goodall discovered that chimpanzees eat meat.		
2.	Tickets for Jane Goodall's lecture sold out within 20 minutes.		
3.	Gordon Ramsay is a Scottish celebrity chef.		
4.	He once drinked horse milk on his TV show.		
5.	In 2009, Jamie Oliver cooked a special menu for Barack Obama, Gordon Brown and other world leaders.		

**Image 1: Excerpt from the Grammaticality Judgment Task**

3.6. *Preliminary results*

The data collected from the GJT, represented in Graph 1, showed medium levels of accuracy on the pretest, ranging from 54% to 64%, when looking at overall results. The three groups – recast, prompt and explicit correction – showed higher accuracy levels for regular verbs than for irregular verbs. The instructional treatment resulted in gains in the accuracy scores for regular and irregular verbs. In the recast group, the gains were very slight but greater for regular verbs in the delayed posttest. The prompt group showed a slight increase for regular verbs and moderate gains for irregular verbs. The explicit correction group showed a slight increase for regular verbs and moderate gains for irregular verbs, but these were not maintained in the delayed posttest.
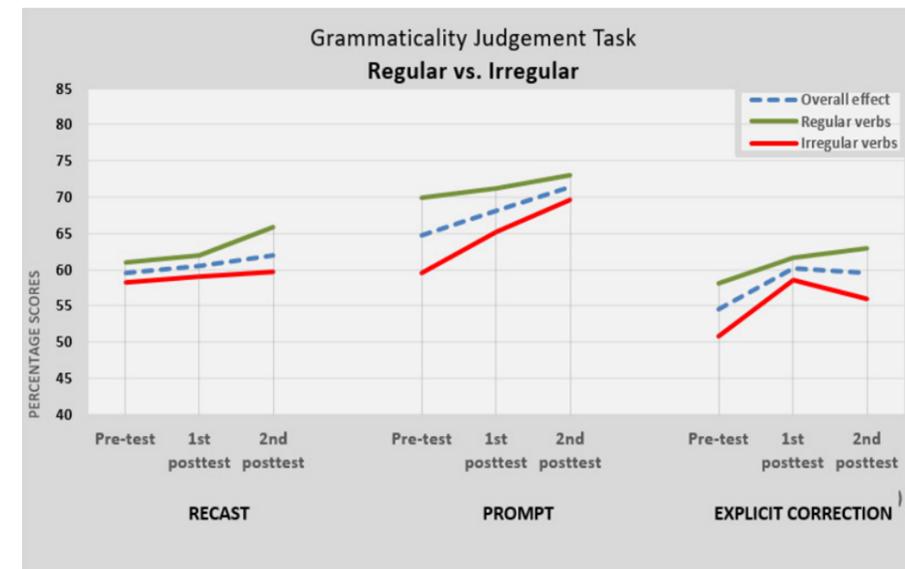
Graph 1: GJT results – Regular vs. Irregular verbs

Focusing on the affirmative sentences and on the distinction grammatical/ ungrammatical, in Graph 2 we observe that all groups had higher accuracy scores in the acceptance of grammatical sentences than in the rejection of ungrammatical sentences. We also notice that participants did not improve their accuracy when identifying grammatical sentences containing regular verbs. As for the grammatical sentences containing irregular verbs, there were slight gains in the three groups from the pretest to the first posttest, particularly in the prompt group. Only the prompt group maintained the accuracy scores in the second posttest. All groups improved their scores as far as the ungrammatical sentences are concerned, especially the prompt group.
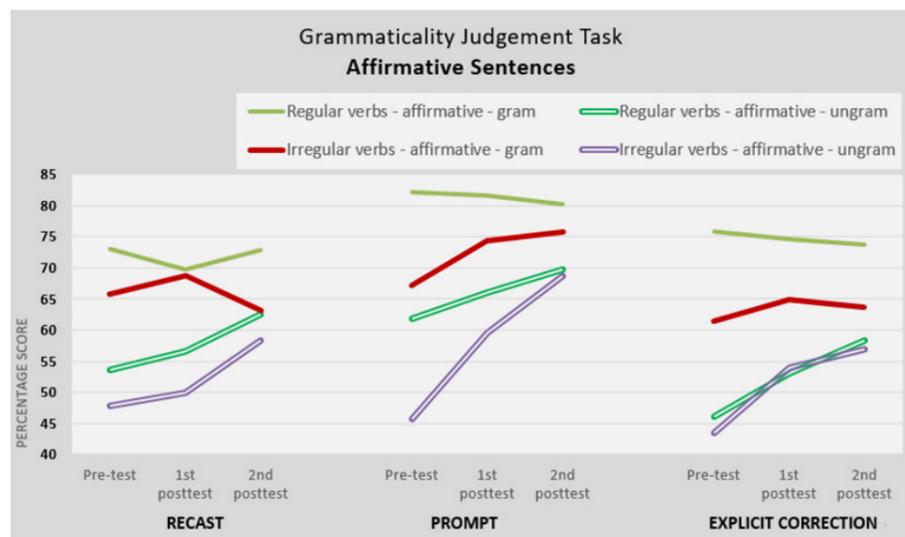
Graph 2: GJT results – Affirmative sentences (Regular vs. Irregular verbs; Grammatical vs. Ungrammatical sentences)

4. Discussion and conclusions

The main aim of this study was to investigate the effects of CF strategies on the learning of English Past Simple regular and irregular forms. These strategies differ in terms of explicitness and in this study implicit CF was operationalized as recasts and explicit CF as explicit correction and prompts in the form of elicitation and metalinguistic feedback. Like in previous studies on the same target feature (Ellis, Loewen & Erlam 2006; Yang & Lyster 2010; Kartchava 2012), participants in the prompt group showed the greatest gains in accuracy levels. The corrective intention of prompts might be clearer to learners than that of recasts as they indicate that there is something wrong in the learner's utterance without providing the correct form, thus eliciting correction from the learner. Due to their implicit nature, recasts may be interpreted by learners as a confirmation of their utterance. Participants in the explicit correction group improved their accuracy levels in the first posttest. The previous studies mentioned in section 2.3.1 did not investigate the effects of explicit correction, where there is a clear indication that an error has occurred and the provision of the correct form. In this case, learners are aware that there is an error in their utterance, but they do not benefit from the opportunity to produce the correct form. Since the learners had prior knowledge of the target structure and they could take advantage of opportunities for production and feedback, the success of prompts may have been due to the fact that they triggered the retrieval of target forms, pushed learners to modify their output and therefore "strengthened connections between knowledge stored in memory and actual language production" (Yang & Lyster 2010: 255).

The results in this study didn't confirm that participants in the recast group might show a greater improvement

in the accuracy levels concerning irregular verbs than regular verbs (Yang & Lyster 2010), which have low saliency.

When compared to the grammatical sentences, ungrammatical sentences containing regular or irregular verbs have the lowest accuracy scores in the pretest, contrarily to the pretest results by Ellis, Loewen & Erlam (2006). They interpret participants' higher accuracy scores in the rejection of ungrammatical sentences as a sign of a relatively high level of explicit knowledge and low accuracy scores in the acceptance of grammatical sentences as a possible indicator of a lack of implicit knowledge. In their study, the gains on the UGJT refer to an improvement on the grammatical sentences, whereas in the study reported in this article students' performance improved more evidently in the rejection of ungrammatical sentences containing regular and irregular verbs.

The GJTs are, in both studies, untimed, so participants can potentially go through the three steps Ellis (2004) proposes regarding the judgment of a sentence: understanding the meaning of the sentence; trying to figure out if something is incorrect in the sentence; reflecting on what is incorrect and, possibly, on the reason for this incorrectness. Thus, explicit knowledge may be involved in the judgment of both grammatical and ungrammatical sentences, although participants may also use their intuition, not performing the third step of the process. Other authors argue that GJTs, even timed ones, cannot be considered measures of implicit knowledge as they draw attention to form (e.g. Vafaee, Kachisnke & Suzuki 2016).

Research results indicate that the effects of CF may depend on the opportunities for self-repair as modified output is considered to contribute to L2 development and CF saliency, as the extent to which learners notice recasts varies across contexts and the nature of target forms. We are currently analyzing more data from grammaticality judgment tasks and from a picture description task, in which students had to produce sentences in the Past Simple based on word cues, which will enable us to confirm the trends we verified in these three groups.

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