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The Role of Corrective Feedback and Learning Styles on EFL Students' Acquisition of Grammatical Structures

Mohammad Khatib
Associate Professor
Allameh Tabataba'i University, Tehran, Iran
mkhatib27@yahoo.com

Muhammad Nasser Vaezi
Ph.D. in TEFL
Allameh Tabataba'i University, Tehran, Iran
nasser.vaezi@atu.ac.ir

Rasool Najjarbaghseyah
Corresponding author, Assistant Professor
IRI Amin Police University, Tehran, Iran
rasool.najjar@police.ir

Abstract

The role of oral corrective feedback has been investigated by SLA researchers from various perspectives. Focusing on Iranian EFL context, the present study aimed to explore the role of receiving corrective feedback in the learning of English grammatical structures. It also probed the association between the type of corrective feedback and EFL learners' learning styles. This was an experimental study examining a sample of 128 intermediate-level EFL learners through pretest-posttest control group design. Data of the study was analysed through one-way ANOVA conducted on post-test scores. Results of the study indicated that there were statistically significant differences between experimental groups and control group in terms of receiving feedback. These findings implied the outperformance of the metalinguistic feedback group over recast group and also the superiority of providing EFL learners with feedback compared to no-feedback. The results obtained from two-way ANOVA revealed an effectively significant interaction between the type of oral corrective feedback and the learners' learning styles. The study discussed how both types of corrective feedback and learning styles could manipulate L2 acquisition which might have some implications for EFL language teachers in the classroom.

Keywords: Corrective Feedback, Recast, Metalinguistic Feedback, Learning Styles, Field-Dependency

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1. Introduction

The role of the teacher Oral Corrective Feedback (OCF) has received considerable attention from SLA researchers for the past three decades. To this date, there have been bulk of studies (e.g., Herron, 1981; Loewen & Nabei, 2007; Lyster, 1998(a); Lyster & Saito, 2010; Lyster, Saito, & Sato, 2013; Morris, 2002; Rassaei, 2013, 2014 & 2015; Rassaei & Moinzadeh, 2014; Sagarra & Abbuhl, 2013) on the role of oral corrective feedback (OCF). Additionally, a large number of the studies either on oral or written corrective feedback have confined themselves to study the role, efficacy and the impact of feedback on the use of some target structures such as dative verbs (e.g., Carroll & Swain, 1993); regular past tense, i.e., –ed (e.g., Cho, 2012; Ellis, Loewen, & Erlam, 2006); wh-question forms (e.g., Rassaei & Moinzadeh, 2012); articles (e.g., Lyster, 2004; Muranoi, 2000; Rassaei, 2013, 2014 & 2015; Rassaei & Moinzadeh, 2014; Sheen, 2007a & 2007b), and so forth. Yet, it can be claimed that there exists no or little research on the role of Corrective Feedback (CF) on the acquisition and/or use of some other certain grammatical structures (CGSs), especially at the sentential level, such as conditional sentences and reported speech which are the targets for the present study.

Moreover, in comparison to studies done on the role of CF in Second Language Acquisition (SLA), there have been smaller number of studies on the correlation between the individual differences (i.e., motivation, anxiety, …) and the given feedback (e.g., Goo, 2012; Rassaei, 2013; Rassaei, 2015; Sheen, 2008; Zhang & Rahimi, 2014), and even fewer number of studies concerning the relationship between learning styles (LSs) as one of the individual factors and CF (e.g., Rassaei, 2014; R´ev´esz, 2012). Hence, the possible correlation of the learners' LSs and the type of OCF provided to them in the context of second or foreign language learning has relatively remained overlooked. The importance

of LSs as an individual approach to learning or a source of individual differences (IDs) must be extensively acknowledged in educational contexts. Dörnyei (2005) claims that IDs relate to some of the core issues in applied linguistics and that they can be meaningfully linked to the most important processes underlying SLA.

The current study, in the first place, discusses the role CF plays in SLA, and then by presenting briefly the definitions and types of CF as well as those of LSs, tries its best to examine the effect of recast and metalinguistic feedback and the learners' LSs on the acquisition of CGSs.

2. Literature Review

2.1. Corrective Feedback and Second Language Acquisition

It is for a few decades that in SLA researches, error correction in a language class setting has been gaining considerable attention (Burnett, 2002; Ellis, 2009; Lyster & Ranta, 1997; Philp, 2003). Li (2010) believes that the growing progress of research in error correction demands a research synthesis scrutinizing the helpfulness of corrective feedback across studies and identifying the variables impacting its effectiveness. Li's (2010) study and some other recent meta-analyses (Lyster & Saito, 2010; Mackey & Goo, 2007; Russell & Spada, 2006) prove the positive role of CF in language teaching and learning.

Interest in correction and repair as components of instructional practice in language classrooms can be traced to its theoretical roots in the interaction hypothesis (Long, 1996), which asserts that negotiated interaction facilitates learners' target language acquisition by helping to draw their attention to gaps in their knowledge of linguistic forms. Negotiated interaction happens when

more proficient users or the native speakers of L2 draw the attention of L2 learners to the mismatches existing between the linguistic forms they already know and the ones they do not know.

While theories derived from Chomsky's Universal Grammar like that of Schwartz's (1993) claim that acquisition is driven entirely by positive evidence and thus assuming no role for CF as a source of negative evidence, cognitive interactionist theories (e.g., Long, 1996) claim that CF assists acquisition by helping learners establish target-like form-meaning mappings while they are engaged in the effort to communicate. Skill learning theories (e.g., DeKeyser, 1998) also see a role for CF in assisting learners to proceduralize their declarative knowledge of the L2. Interactionist and skill-learning theories have also provided competing hypotheses concerning which type of CF -input-providing or output-pushing- best promotes SLA. In contrast, sociocultural theory rejects the view that there is a single type of CF that is best for learning; instead, it proposes that learners benefit most when teachers prompt the learner to self-correct and scaffold his or her attempts by fine-tuning their choice of corrective strategy to the learner's developmental level (Aljaafreh & Lantolf, 1994). It seems that regardless of the types of theories; that is, interactionist, cognitive, sociocultural, skill-learning and so forth, the study of CF has served as a means of testing the claims of the competing SLA theories. Also, seemingly, they all respect the role of CF in L2 acquisition, but to some different extents.

2.2. Corrective Feedback Typology

According to Lightbown and Spada (1999), CF is defined as "Any indication to the learners that their use of the target language is incorrect" (p.171). A six-type taxonomy which can be claimed as one of the most influential as well as

earliest typologies of corrective feedback was proposed by Lyster and Ranta (1997). The typology includes explicit correction, recasts, elicitation, metalinguistic clues, clarification requests, and repetition as six types of CF being used in instructed SLA (See Lyster & Ranta, 1997). The main unit of analysis in the present study was two types of error treatment strategies from the six-type taxonomy, i.e., recast, and metalinguistic feedback whose effects on the students' use of CGSs were examined in the context of the learners' LSs. In recasts the teacher provides the learners with the correction without showing directly that the student's utterance is incorrect. In metalinguistic feedback, however, a meta-linguistic comment, in the form of a piece of information, or questions pertinent to the well-formedness of the learners' utterances is provided by the teacher. In other word, the explicit indication of the error is done but no correct form is provided for the students.

2.3. Recast

Among CF, as Goo (2012) notes, recast as an indirect CF has recently changed to a controversial issue and has also gained importance among all other types of CFs in L2 researches. Some studies (Braidi, 2002; Lyster & Mori, 2006; Lyster & Ranta, 1997; Lyster, Saito &Sato, 2013; Sheen, 2004; Oliver, 1995) provide us with the evidence that teachers use recasts more than other types of CF strategies. Perhaps, one of the reasons that teachers take advantages of recasts is for it provides them with the opportunity to give the learners the correct forms as an immediate indirect reaction to their erroneous utterances. In line with the first reason, another reason, which is also counted as one of the merits of recasts, is the fact that they are more likely to promote L2 development, since they provide learners with the correct form while they cause no interruption in the flow of communication (Erlam & Loewen, 2010).

According to Leeman (2003), teachers' provision of correct form right after the learners' incorrect uttered form helps the learners easily notice their deviation from the target-like form, and as a consequence of such a noticing L2 development is probably promoted. Moreover, a study by Lyster, Saito, and Sato (2013) proved that recasts are used more frequently than other different types of CFs.

Some researches suggesting recasts as the most effective CF strategies in L2 classroom and providing evidence for it demonstrated that recasts facilitate L2 development (Ammar & Spada, 2006; Goo, 2012; Goo & Mackey, 2013; Li, 2010; Lyster & Saito, 2010; Mackey & Goo, 2007; R´ev´esz, 2012). Yet, sometimes, recasts have been under criticism for being vague and not noticeable enough to make learners either notice their own erroneous utterances (e.g., Lyster, 1998b; Rassaei, 2013), or perceive the teachers' recasts as mere repetitions of the same utterances. In other words, learners fail to distinguish the corrective role of recasts, and see the teachers' corrective repetitions wrongly as non-corrective repetitions which were intended by the teachers to confirm the comprehensibility of the learners' messages (Ammar, 2008; Egi, 2007; Lyster, 1998a & 1998b; Lyster & Mori, 2006; Mackey, Gass, & McDonough, 2000; Rassaei, 2013 & 2015; Rassaei & Moinzadeh, 2014). Moreover, research shows that some internal and external factors somewhat influence the degree of the recast's efficacy and perceptibility (See Mackey, Gass, & McDonough, 2000; Rassaei & Moinzadeh, 2014).

2.4. Metalinguistic Feedback

Employing metalinguistic feedbacks, teachers, directly warn the learners against their erroneous utterances without providing them with the correct form aimed at pushing them to correct their own errors (Lyster & Ranta, 1997;

Sheen, 2007b). Therefore, one can claim that in some aspects metalinguistic feedbacks are superior to recasts because of promoting learners' understanding of target forms (Sheen, 2007b), pushing learners to self-correct forms, and triggering learners' modified output (Lyster, 2004; Lyster & Mori, 2006) Thus on the basis of Swain's output hypothesis, metalinguistic feedback could assist L2 acquisition, and creates a teacher-learner interaction.

Loewen (2011) suggests that CF has been attended to as a type of focus on form (FonF) under a more general category of form-focused instruction (FFI). In the same vein, Ellis (2008) proposes that metalinguistic feedback is counted as an explicit/direct CF which can be categorized under the category of explicit FFI when metalinguistic terminology is used in the form of, for instance, rule explanation. This is while implicit FFI makes no use of metalanguage of any kind. Then, he categorizes metalinguistic CF as a form of CF that is a type of reactive deductive explicit FFI, and recast as a reactive inductive explicit FFI. He maintained that reactive deductive CF (e.g., explicit correction and metalinguistic feedback) evidenced to be more effective in gains in instructed SLA than reactive inductive CF (e.g., repetition and recast).

Moreover, comparing the impact of recasts with that of metalinguistic feedback on the second language development, some empirical studies proved the superiority of metalinguistic feedback over recasts (e.g., Ellis, Loewen, & Erlam's, 2006; Rassaei & Moinzadeh, 2012). There are also a few other comparative studies which indicated the outperformance of some other types of direct CF strategies such as explicit correction, or prompts over some indirect CF strategies such as recast (e.g., Rassaei, 2013; Ammar, 2008). Some other researches, however, maneuvering on the equal efficacy of recasts and metalinguistic feedbacks or prompts, do not support the idea that one type of

CF is superior to the other ones (e.g., Loewen & Nabei, 2007; Lyster & Izquierdo; 2009; Nassaji, 2009).

Now, reviewing the studies on recasts and metalinguistic feedback, a big question comes to our mind: which one is better? Although there is no consensus to show the absolute superiority of one type of CF over other ones, the mentioned studies and the likes have displayed some valuable facts about CF types and differences and similarities between them. Yet, in order to make CF studies more practical and relevant to educational purposes including some factors such as individual differences and LSs, examining CF types on varied target forms of L2, and operating CF types in diverse instructional settings seem to be of crucial importance. The just-mentioned rationale is the fundamental purpose of the current study on the way of promoting the practicality of CF studies.

2.5. Individual Differences and Learning Styles

As Dörnyei (2005) put it, "Individual differences (IDs) are characteristics or traits in respect of which individuals may be shown to differ from each other" (p.1). He maintains that "IDs have been found to be the most consistent predictors of L2 learning success, yielding multiple correlations with language attainment in instructed settings …" (p.2). Learning styles and strategies could affect language learning and learners in both conventional and technology-based language learning (khabbaz & Najjar, 2015).

There have been some studies which have investigated the effect of different types of CFs along with IDs as moderating effects on language learning, that is, to investigate whether individual learner characteristics are influential factors on CF. For example, Sheen (2007b) examined the effects of metalinguistic feedback and recasts along with the controlling effects of

language aptitude and also the learners' attitudes towards error correction on L2 development. The results not only showed the outperformance of metalinguistic group over recast group but also indicated significant associations in the metalinguistic group between the learners' gain scores and the aptitude as well as their positive attitudes towards error correction. Later, in another study, Sheen (2008) suggested that the learners' level of language anxiety influenced the efficacy of recasts. The results disclosed that learners with high foreign language anxiety could not take advantages of the corrective value of recasts, while those with low anxiety could. Another example is the study by Goo (2012) wherein the effects of metalinguistic feedback and recasts as well as the modulating effects of the working memory capacity of the Korean learners of English on the L2 grammar development were investigated. The results revealed the equal efficacy of both types of CF in promoting the development of L2 grammatical target structures. The findings also indicated that working memory of the learners could predict the effectiveness of recasts but not that of metalinguistic feedback.

Moreover, in their study, Sagarra and Abbuhl (2013) suggested that the efficacy of recasts is under the influence of the individuals' working memory and the modality of recasts delivered through computer. For the first, the results showed that higher span learners were superior to lower span learners in all recast groups in developing linguistic accuracy, and for the latter, on the basis of the results, the computer-delivered oral recasts displayed a higher effectiveness than computer-delivered written recasts.

Notably, most of the studies on IDs have been confined to individual factors such as motivation, age, language aptitude, memory, learner beliefs, and so forth, and relatively the learning styles as a subcategory of IDs are rarely attended to. Dörnyei (2005) has suggested that LSs are among the "important

contributors to success in mastering a foreign language" (p. xi). In a standard definition by Reid (1995), LS(s) refer to "an individual's natural, habitual, and preferred way(s) of absorbing, processing, and retaining new information and skills" (p. viii). Ehrman (1996) defines LSs as "broad preferences for going about the business of learning" (p. 49).

The present study utilizes Ehrman and Leaver's (2002) Learning Style Construct which is novel and best suited for the purpose of the study. Meanwhile, according to Dörnyei (2005) not only is it as one of the best measurement tools encompassing a rich set of data about an individual in the form of an emerging profile, but it also enjoys the merit of both generality and specificity (i.e., for cases in SLA studies). Based on Ehrman and Leaver's (2002) taxonomy, ten major LSs are presented upon which people are categorized on a dichotomous style, i.e., to be or not to be of a specific style, or in other words to enjoy or not to enjoy some certain characteristics (See Ehrman & Leaver, 2003). From among the ten different types of LSs, only field dependency style is the LS whose interaction with the two types of OCF, i.e., recast as an indirect OCF (IOCF) and metalinguistic feedback as a direct OCF (DOCF) is investigated in the current study. Field dependency style was selected by the researchers because a large number of related studies on this style let the researchers find and compare the related theoretical and practical relations of the previous studies with the current study. Moreover, from different OCF types, recasts and metalinguistic feedback were selected as the representatives of IOCF and DOCF respectively on a random selection basis by the researchers.

2.6. Learning Styles and Corrective Feedback Interaction

LS as a source of IDs and its possible correlation with the learner's corrective feedback uptake have been untouched. One of the most important LSs in Ehrman and Leaver's (2002) Learning Style Construct is field-dependency continuum upon which individuals or learners are identified as whether field-dependent (FD) or field-independent (FI). Cassidy (2004) differentiated FD and FI individuals where he argued, "Field-independent learners are characterized as operating within an internal frame of reference, intrinsically motivated with self-directed goals, structuring their own learning, and defining their own study strategies. Field-dependent learners, on the other hand, are characterized as relying more on an external frame of reference, are externally motivated, respond better to clearly defined performance goals, have a need for structuring and guidance from the instructor, and a desire to interact with other learners" (pp. 425–426).

Moreover, according to Cohen and Weaver (2005), field-dependent individuals "need context to focus and understand something, and may take in language one part at a time; challenge juggling features of the language at the same time (e.g., verb, tense, number agreement)" … field-independent learners are "able to handle the language parts as well as the whole without being distracted, and good at juggling numerous language elements at once without dropping the ball" (p. 15)".

The review of studies in the field of L2 acquisition on FD/FI shows that most of these studies back to 1980s and 1990s. They were predominantly correlational studies exploring the association between FD/FI and various aspects of L2 knowledge rather than relating FD/FI to miscellaneous instruction types used in L2 educational contexts (e.g., Chapelle & Green, 1992; Hansen & Stanfield, 1981; Johnson & Rosano, 1993; Tinajero & Páramo,

1998). However, in a rather different design, Abraham (1985)'s study using a pretest/posttest design investigated to what extent FD and FI learners gained from deductive versus inductive instruction of grammar.

Accordingly, very few studies investigated the association between FD/FI and corrective feedback. For instance, Rassaei (2014) examined the hypothesis that the learners' field dependence/independence learning styles influence the efficacy of recasts. The findings of his study indicated that recasts were beneficial only to the field independent learners. Considering the fact that scarcity of research is seen in such a field especially in recent years, and attempting to fill the existing gap, the current study employing a pretest/posttest as well as a correlational design explored the role of providing learners with different types of CF in the acquisition of certain grammatical structures and also investigated the correlation among CF, learning style and the acquisition of the target structures.

2.7. Target Structures

Through a pilot study, conditional sentences and reported speech were chosen as target structures for the purpose of the study, i.e., to examine whether recast and metalinguistic feedbacks can assist or may have any impact on the learners' learning and mastering of certain English structures if we control for their field-dependency LSs. To this end, an attempt was made to answer the following research questions:

1. Are there any statistically significant differences among the three groups receiving recasts, metalinguistic feedback, and no feedback in the learning of English first conditional sentence and the reported speech of positive statements?

2. Is there any statistically significant interaction between the two types of oral corrective feedback (i.e., recast and metalinguistic feedback) and the EFL students' field-dependent and field-independent LSs in the learning of English first conditional sentence and the reported speech of positive statements?

3. Method

3.1. Participants

128 EFL students took part in the study. To have control over between- and within-group differences, an attempt was made to choose all sample subjects from one gender (male), aging 20-30, and with the same proficiency level, i.e., intermediate.

3.2. Instrumentation

Based on the procedural process of the study, Oxford Placement Test (OPT) was held as the test of placement to homogenize the learners. Out of 168 EFL learners at a Language School, 131 students, based on the test interpretation of the OPT scores, were assigned as the intermediate level. Ehrman and Leaver Learning Style Questionnaire v. 2.0 (2002) was chosen from among other learning style tests/batteries as the best for the researcher's purpose. On the basis of validity arguments (Dörnyei, 2005), and some reasons like the availability, reasonable length (30 items), comprehensibility, and convenient scoring design (easy scoring), it was used to answer the research questions on the interaction and correlation of the two factors, i.e., the CF types and the LSs. For the purpose of avoiding any ambiguity or misinterpretation as well as better understanding on the part of the learners, the translated version of the

questionnaire was used. The translation was taken originally from a prior study on cognitive style done by Maftoon and Rezaie (2013), yet it was given to three TEFL experts, and then upon their helpful comments, some changes and revisions were made to the translated questionnaire.

For the requirements of a pretest-posttest control group design, two equivalent tests on the use of the CGSs were made to check the students' knowledge of the subject. A test consisting of 60 items was designed for both pretest and posttest. The two target structures, each having 10 question items, were distributed randomly among other grammatical structures to avoid Hawthorne effect. To guarantee the reliability of the test, it was piloted to 50 students of English, and then its internal consistency was calculated through Cronbach's alpha (α=.83).

3.3. Materials

Three sessions of the normal conversation class at the intermediate level covered each of the target structures, that is, CGSs. Thus, for the purpose of this study, the conventional language material of the same institute was used (i.e., TOP NOTCH 2). Right after the grammar part was taught by the teacher and the exercises were done by the students, a speaking game activity was focused on to elicit the students' errors in order to apply the supposed type of CF within each CF group whenever they made erroneous utterances. For each of the two target structures in the current study, three separate sessions of treatment and practice were allocated wherein some topics were given to the students. They were given a 10-minute time to practice each topic in pairs. For instance, regarding conditional sentences as the target structure, they were asked to answer "if you become president of the country, what will you do for the country and the nation?" Each student, then, was asked to talk about the

topic for three minutes using the target structure in his sentences. The teacher corrected the student's errors orally using recasts for the recast group, or metalinguistic feedback for the metalinguistic feedback group. The control group treatment procedures were the same with no CF from the teacher.

3.4. Procedure

The language learners were selected as intermediate according to the test scores of the OPT. Out of 168 EFL students of the Language School who namely are called intermediate students, having OPT held, 131 students, based on the test interpretation of the OPT scores, were assigned as the intermediate level. The accepted students were randomly assigned to three groups. Therefore, the experimental groups (A and B) and the control group (C) were randomly determined. Group A received recasts as feedback, group B received metalinguistic feedback, and group C received no feedback. Each group contained two classes of 20 (+/-2), and thus six classes were formed. It should be noted that out of a total number of 131 learners randomly assigned to different three groups, 3 learners dropped the course; therefore, 128 learners participated in the study and consequently 128 learners' profiles were formed. Then, each learner was asked to answer his questionnaire (learning style test). Finally, in order to complete every learner's profile for later data analysis, each questionnaire sheet was coded. The researchers performed a pilot study wherein 5 sessions of free discussion, conversation, or oral presentation were recorded (audiotaped), and then transcribed to find out the most problematic structures (target structures), namely 'CGSs' in the present study, i.e., conditional sentences and reported speech. A pre-test consisting of 60 items was designed. The two target structures, each having 10 question items, were distributed randomly among other grammatical structures to avoid Hawthorne

effect. And then an equivalent form of the pre-test was designed as the post-test. Then, the tests were piloted and checked for internal consistency reliability through Cronbach's alpha (α= .83). The pre-test was administered to measure and diagnose the subjects' knowledge of the selected target features prior to treatment.

The treatment was given. Each of the four experimental groups involved in the study received its own set of treatment. As such, Group A received recasts, and Group B received metalinguistic feedback. However, group C had very little (by accident) or no opportunity of being given a specific sort of CF. All the groups received the same material for the CGSs by the same teacher within 6 sessions of treatment. Treatment being finished for the three groups/six classes, the posttest was administered. Statistical analyses were done on the data set to answer the research questions. By means of SPSS package, the scores were subjected to a number of statistical analyses as follows:

a. Conducting one-way ANOVA to answer the first research question;

b. Conducting two-way ANOVA to calculate the "effects" of grades on the post-test to show to what extent they vary depending on the learning style

4. Results

Are there any statistically significant differences among the three groups receiving recasts, metalinguistic feedback, and no feedback in the learning of English first conditional sentence and the reported speech of positive statements?

A one-way between-groups analysis of variance (ANOVA) was conducted to explore the impact of recasts or feedback on the learning of English first conditional sentence and the reported speech of positive statements. Preliminary analyses were performed to ensure no violation of the assumptions

of normality and homogeneity. Participants were divided into three groups according to the receiving recasts, metalinguistic feedback, and no feedback. According to the data (table 1), there was a statistically significant difference at the p<.05 level among the mean scores for the three groups: *F (2, 125)= 11.40, p=.00*. The effect size, calculated using eta squared, was 0.15 that shows the actual difference in mean scores between groups was a large effect. Post- hoc comparisons using the LSD test (table 2) indicated that the mean scores for recasts group (*M=15.68, SD=1.65*) was significantly different from metalinguistic feedback group (*M=16.75, SD=2.23*) and control group (*M=14.59, SD=2.27*).

Table 1. ***Posttest ANOVA for Exploring the Impact of Feedback/Recast/No Feedback***

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	97.787	2	48.893	11.409	.000
Within Groups	535.682	125	4.285		
Total	633.469	127			

Table 2. ***Dependent Variables' Posttest Multiple Comparisons***

(I) feedback group	(J) feedback group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval
					Lower Bound
Recast	Meta	-1.06818*	.45225	.020	-1.9632
	Control	1.09091*	.44135	.015	.2174
Meta	Recast	1.06818*	.45225	.020	.1731
	Control	2.15909*	.45225	.000	1.2640
Control	Recast	-1.09091*	.44135	.015	-1.9644
	Meta	-2.15909*	.45225	.000	-3.0542

Is there any statistically significant interaction between the two types of oral corrective feedback (i.e. recast and metalinguistic feedback) and the EFL students' field-dependent and field-independent LSs in the learning of English first conditional sentence and the reported speech of positive statements?

A two-way between-groups analysis of variance was conducted to explore the impact of two types of oral corrective feedback and the EFL students' field-dependent and field-independent LSs on the learning of English first conditional sentence and the reported speech of positive statements. Preliminary analyses were performed to ensure no violation of the assumptions of equality of error variances. Participants were divided into three groups according to the receiving recasts, metalinguistic feedback, and no feedback. The interaction effect between corrective feedback groups and LS was statistically significant $F(6, 122)=3.98, p=.001$. The effect size was large (partial eta squared=.164). Post- hoc comparisons using the Tukey HSD test (table 3) indicated that the field dependent (FD) and independent (FI) participants in metalinguistic group outperformed those in other groups ($M_{FD}=16.57, SD_{FD}=2.20; M_{FI}=16.84, SD_{FI}=2.29$). Moreover, based on the results, both the FD and FI participants in control group (CG) did worst on the post-test as compared to those with the same learning style in the other two groups ($M_{FD}= 14.40, SD_{FD}= 2.06; M_{FI}=14.75, SD_{FI}= 2.47$). Furthermore, the means and standard deviations of the field dependent (FD) and independent (FI) participants in recast ($M_{FD}= 15.92, SD_{FD}= 1.71; M_{FI}= 15.33, SD_{FI}= 1.53$), displayed that both the FD and FI participants did worse on the post-test as compared to those with the same learning style in the metalinguistic group, but did better on the post-test as compared to those with the same learning style in the control group.

Table 3. *Tests of Between-Subjects Effects (Dependent Variable: Posttest)*

Source	ype III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	103.917[a]	6	17.31	3.98	.001	.164
Intercept	9140.862	1	9140.862	2104.284	.000	.945
Feedback group * LS	103.917	6	17.319	3.987	.001	.164
Error	529.959	122	4.344			
Total	32171.000	129				
Corrected Total	633.876	128				

a. R Squared=.164 (Adjusted R Squared=.123)

b. Computed using alpha=.05

5. Discussions

The present study aimed at examining the impact of direct and indirect oral corrective feedback and learners' LSs on the EFL students' acquisition of certain grammatical structures. This part, then, includes a two-pronged discussion of the preceding results: The role of CF in instructed SLA and the interaction between CF and LS.

In general, the results of this study supported the findings of other studies which proved the positive impact of OCF in instructed SLA (Herron, 1981; Loewen & Nabei, 2007; Lyster, 1998a; Lyster & Saito, 2010; Lyster & Saito, 2013; Morris, 2002; Rassaei, 2013, 2014 and 2015; Rassaei & Moinzadeh, 2014; Sagarra & Abbuhl, 2013). The present study in line with some meta-analyses (Li, 2010; Lyster and Saito, 2010; Mackey & Goo, 2007; Russell & Spada, 2006) proved the positive role of CF in language teaching and learning. The findings of the study, therefore, are against some earlier theories rooted in Chomsky's Universal Grammar such as that of Schwartz's (1993) which claimed that

acquisition takes place only when the learners receive positive evidence, and thus CF as a source of negative evidence has no role in acquisition.

In specific, as the main purpose of the study, here, the possible assumed role of DOCF and IOCF on the acquisition of L2 is discussed. As to address the first research question, the results of the current study assumed a role for both recast and metalinguistic feedback; yet, the learners being grouped in metalinguistic group outperformed those in recast group. This was in line with some studies mentioned earlier in the literature which compared the role of recasts and metalinguistic feedback (e.g., Ammar, 2008; Ellis, Loewen, & Erlam, 2006; Lyster, 2004; Rassaei, 2013; Rassaei & Moinzadeh, 2012, Sheen, 2007b). As such, in portraying the superiority of metalinguistic feedback over recast, the findings of the current study assisted those of the previous ones.

A possible justification for the outperformance of the metalinguistic group over other groups in the current study can be for the particular features of metalinguistic CF including, for example, direct/explicit nature, output-prompting strategy (See Sheen & Ellis, 2011), i.e., prompting move (See Lyster and Mori, 2006), modified out-put producing capacity (See Rassaei, 2015), noticeability or attention-drawing (Ellis, Loewen, & Erlam, 2006), self-reflection arousing, and interaction-creating which all can result in better learning. Outstandingly, the most important feature of metalinguistic feedback is noticeability or attention-drawing, and as Gass and Mackey (2000) believe the role of attention in connecting input and intake is not to be neglected. In the same vain, according to Schmidt (2001) awareness at the level of noticing plays a key role for learning and at the level of understanding results in deeper and faster learning. It can also be suggested that within such a context of language use where metalinguistic CF is provided by the teacher for the learners, the learners find a reason to attend more to their own language or

utterance and their teacher's language in providing the learners with this type of feedback. Therefore, not only the learners find chances of reflection on their erroneous utterances, but also more chances of interaction, self-correction, and acquisition are created for them. Hence, it seems that metalinguistic feedback not only makes the learners notice their ill-formed utterances, but also it can provide them with the opportunity to get more involved in the context of language use by highlighting the target structure usage and thus possibly suggesting them to correct their ill-formed utterances. Additionally, it can be assumed that taking advantages of metalinguistic feedback can create contexts of language use, and as Johnson (1995) suggests creating contexts of language use for the learners makes them have a reason to attend to language, and it is one of the key requirements for interaction which consequently lead to creation of an acquisition-rich atmosphere in a classroom. Therefore, it can be suggested here that metalinguistic feedback creates two levels of noticing which immediately can result in interaction and eventually in acquisition. At the first level, it draws the learners' attention to L2 target forms/ usage specifically and directly, and at the second, it draws the learners' attention to the language use generally and indirectly, that is reproducing correct language through self-correction.

Notably, the above-mentioned studies' findings, and especially those of this study are in complete harmony with the studies on explicit form-focused instructions (FFI) (See Ellis, 2008) most of which found that reactive deductive CF (e.g., explicit correction and metalinguistic feedback) proved to be more effective in gains in instructed SLA than reactive inductive CF (e.g., repetition and recast). The implication for using metalinguistic feedback, here, is that this type of CF is noteworthy, and using it by the teacher in classroom is a type of instructional strategy in pushing the learners to reflect on their erroneous

utterances and accordingly try to self-repair their errors which brings about a more facilitated, dynamic and interactive L2 learning. Therefore, the findings of the current study highlight the role of FFI and strengthen all reactive explicit FFI studies as well.

Back to the literature, however, the findings of the current study are not congruent with some earlier studies which suggested the equal effect of direct and indirect CF (Goo, 2012; Loewen & Nabei, 2007; Lyster & Izquierdo, 2009; Nassaji, 2009).

As to address the second research question, the results indicated that learners with FD/FI in both metalinguistic and recast group outperformed the control group in the posttest which means the significant interaction of CF and LS. Yet, the learners in metalinguistic group outperformed the recast group. More precisely, concerning the interaction between CF and LS, the findings of the current study showing an interaction between LS and the CF with a large effect size (partial eta squared=.164 equal to .8 Cohen's d) demonstrated that LS as an independent interactional variable intervened learning. The results are in line with some earlier studies. Some prior studies showed associations between the learners' individual differences and their L2 development. For instance, Sheen's (2007b) study suggested that there existed a significant relationship between the students' L2 development and their aptitude which was counted as an independent variable with moderating intervening effects on the effects of metalinguistic CF and recasts on L2 development. More elaborately, the Sheen's (2007b) study showed the outperformance of the metalinguistic CF group over recast group and also the significant correlation between the learners' scores and their aptitude as a type of IDs. Our study is similar to and in line with Sheens' except that it used LS as a type of IDs. However, regarding the intervening role of LS in CF studies, the findings of the

current study are different from those of Rassaei's (2014) study wherein he proved that FI learners outperformed FD learners in all immediate and delayed posttests and demonstrated that one specific type of LS (i.e., FI) can favor a specific type of CF (i.e., recast) but the findings of the current study displaying different results suggested that a specific type of CF (i.e., metalinguistic) can favor different LSs (i.e., both FI and FD).

Moreover, understanding the extent to which FD/FI learners benefit from direct/indirect types of CF in a single study was earlier suggested by Rassaei (2014) as an interesting line of research which has not been touched, and in this regard the current study made some contribution to such understanding by suggesting that there existed a significant interaction between LS and CF, and both FD and FI learners benefited more from direct type of CF. In other words, regardless of the learners' LSs, the role of direct type of CF has been very strong among any types of LSs. Therefore, as further studies, researchers are suggested to go beyond finding the interaction between LS types and CF types and by adding or examining some other LSs rather than field-dependency style and investigate the extent to which they may or may not favor a specific type or even all types of CF.

6. Conclusion

In comparison to other studies on CF, one of the merits of this study was to examine the role of CF in the context of the learners' LSs in learning L2 target structures. As Oxford (2001) points out, "Language learning styles and strategies are among the main factors that help determine how – and how well – our students learn a second or foreign language"(p.359). In addition, based on Ellis's (2010) view, LS is one of the individual factors of a learner which holds the capacity of interacting with the contextual factors to "mediate

between the CF that learners receive and their engagement with the CF and thereby influencing learning outcomes" (p.339). Accordingly, the study not only indicated that the learners' LSs can be counted as an intervening factor in language acquisition, but also highlighted the positive impact of recasts and metalinguistic feedback on the acquisition of certain grammatical structures in the study, i.e., conditional sentences, and reported speeches.

The findings of the present study, firstly, reemphasized the role of CF in L2 acquisition as it had been stipulated in some earlier mentioned studies. Secondly, the CF treatment groups showed a better performance in the posttest than that of the no-feedback group, and so proved the role of CF in acquiring the target structures. This was in line with Russell and Spada's (2006) meta-analysis of corrective feedback, finding CF to be more effective than no CF. Thirdly, considering CF as a type of Focus on form (FonF) under the category of FFI, the study reestablished the same results wherein reactive deductive CF_ in our study, metalinguistic feedback_was more effective than reactive inductive CF- recast in our study.

Regarding the fact that different studies have shown different results for the superiority of one type of CF over the others, although this study like many other similar studies proved that more explicit feedback may be more effective than implicit one, still more evidence is needed to show if there is any best CF strategy.

Furthermore, although the study indicated that there was a strong association between the students' LSs and the type of CF in L2 acquisition, the role of CF proved to be stronger than that of the learners' learning styles. Further studies, however, are needed to prove such a view. Additionally, it is suggested that the same types or other types of CF with the same or other LSs be investigated to explore the association between them, and also to figure out

if there is any superiority of one or more types of CF for all learners of different LSs, or to understand if one or some specific types of CF would be more effective for one or some people with different or similar specific types of LSs.

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