



**Explicit Teaching of an Unsalient Property:
the case of illicit resumptive pronouns in English relative clauses**

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Abstract

The present study investigated the role of explicit instruction on the acquisition of English relative clauses by focusing on resumptive pronouns among Iranian learners of English at an intermediate level of proficiency. The study focused on two structurally different languages (Persian and English) regarding the use of resumptive pronouns. A grammaticality Judgment Test (GJT) and a Sentence Combination Task (SCT) at three phases of pre-test, immediate, and delayed posttests, have been used; paired samples t-tests showed that exposure to input through teaching materials can improve the learners' performance in specific types of relative structures, but not in all. The findings propose that if language learners, especially in a foreign language context, are provided with enough input and still don't acquire an uninterruptable feature (resumptive pronouns in this case), then it can be said that fossilization has occurred and the interpretability hypothesis (Tsimpili and Dimitrakopoulou, 2007) will be confirmed. It also shows that explicit teaching can lead to future noticing in input and result in more stable acquisition.

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1. Introduction

Acquisition of English relative clauses have always proved to be difficult for second/third language learners due to their intrinsic structural complexity. What make the process even more challenging are the structural differences between the first and the target language and the negative habits that language learners usually bring with them to the new learning context (L1 transfer). The effect of previously learned languages on the acquisition of a second/third language has recently attracted the attention of many scholars in the field of second/third language acquisition. Many studies have been conducted to investigate what kind of knowledge can be considered as the source of cross-linguistic influence (CLI) in L_n acquisition. In line with such research, the present study aims at investigating the influence of Persian (L1) on the acquisition of English (L2) relative clauses by focusing on the illicit use of resumptive pronouns among Iranian learners. Resumptive or repetitive pronouns (RP) are elements which have different settings in different languages. Obviously, English with an SVO structure has different resumptive settings compared to Persian as an SOV language. In English, RPs are not allowed, whereas in Persian, there are different options for using them in relative clauses: RPs are not allowed in subject position, they are optional in object position, and obligatory in oblique positions (Taghavipour, 2005).

From a structural point of view, English is an SVO language which uses different types of relative constructions. In English relative clauses, the head noun is located to the left of the clause and relative constructions post-modify the head noun or the noun phrase. English relative clauses can be formed in different positions in a clause; they can be formed as subject, direct or indirect object, object of a preposition (oblique), sometimes the object of a comparative conjunction 'than' (Hawkins, 2019), and finally having a genitive position. Example number 1 shows a subject relative clause:

1. *He is the man [CP who/that [TP bought the car.]]* ("man" as the subject of RC)

English relative clauses are most commonly positioned immediately after the noun they refer to and are introduced by a "wh" word which is referred to as a relative pronoun. Relative pronouns are co-indexed with the head nouns and move from their original positions in TP to the specifier position in CP; this is called operator movement. When the moved element leaves its original position in TP, there remains a gap in this position which is shown with "e" in the example above. English does not allow the repetition of the moved noun or pronoun in the original position of the head noun, whereas in Persian repetitive or resumptive pronouns are allowed in some structures as noted earlier. In English, it is possible to have an overt relative pronoun such as *who*, *whom*, *which*, and *whose*; it is also common to see a relative clause without a *wh* relative pronoun which is instead introduced by the subordinating conjunction 'that':

Object Relative Clause

2. *He is the man [that [you invited e.]]*

English also allows relative clauses to be formed with neither relative pronouns nor 'that', in which case, they are said to contain a "null operator":

3. *He is the man [ϕ [you invited e]]***Object of Preposition**4. *He is the man [ϕ [I talked to e]]***Relative Clauses in Persian**

Persian, as a null-subject language with SOV word order, has distinctive syntactic features. Like English, Persian RCs are NP initial and are always introduced by an “invariant complementizer *ke*” (Taghvaipour, 2004, p. 276). In Persian, unlike English, resumptive pronouns are sometimes allowed in different RCs. In this regard, Persian RCs are different in using RPs. Taghavipour (2005) shows the use of RPs in Persian RCs: RPs are not possible in subject RCs (example 5), optional in object RCs (example 6), and obligatory in object-of-preposition RCs (example 7). In all Persian restrictive RCs presented below, -i represents relative particle (REL) which is attached to the head noun. OM stands for object marker, and Acc stands for the accusative case of the object.

Subject RC (only acceptable without an RP)

5. xanomi ke lebas-e- ghermez poošid-e- æst moælem-e- ma æst.

Woman-REL [that dress red wear-past-3rd sing] teacher-poss be-pres 3rd sing.

The woman who is wearing a red dress is our teacher.

Object RC (allowed with and without RP)

6. Mærdi [ke (u ra) dævæt kærðæm] næyamæd.

Man-REL that (he-ACC) invite-past 1st sing neg-come-past 3rd sing.

“The man whom I invited didn’t come.”

As can be seen, in example 6, the Persian sentence is grammatically correct with or without the resumptive pronoun “u/he”.

Object-of-preposition RC (only acceptable with RP)

7. Mæn an pesæri ke ketab ra be u dadid mişenasæm.

I that boy-REL that book-OM preposition he give-past-2nd s know-present-1st sing

“I know the boy whom you gave the book to.

According to the “Interpretability hypothesis”, Tsimpli and Dimitrakopoulou (2007) asserted that some syntactic features are unavailable in second language acquisition after the critical period. These features are called uninterpretable features. Uninterpretable features play an essential role in movement and syntactic relations.

In other words, acquiring an uninterpretable feature, such as a [wh] feature on C, is challenging for adult learners because of reasons such as maturationally-based L1 influence. While some researchers agree with this hypothesis (e. g. Cassilas, 2008; Hawkins & Liszka, 2003; Liszka, 2004; Franceschina, 2002; Fransecchina & Hawkins, 2003; Hawkins & Chan, 1997), others argue that all features are available in L2, irrespective of the critical period, but they believe that some other factors, such as communication pressures, may be the reason for

the observed morphological variability or erroneous utterances produced by learners (e.g., McCarthy, 2007, 2008; Prévost & White, 2000; Gavrusseva & Lardiere, 1996; Hazdenar & Schwartz, 1997; Lardiere, 1998a, 1998b, 2005, 2007, 2009).

Based on Hawkins and Chan (1997), we assume that relative clauses in English are formed by movement of a *wh*-phrase to the specifier position of *cp*. This movement is triggered by an uninterpretable [*wh*] feature on *C*. The *wh*-phrase leaves a trace in the position from which it has moved. As such movement is not obligatory in Persian, the use of resumptive pronouns is common in Persian relative clauses. The task of Persian speaking EFL learners is then too de-learn the use of resumptive pronouns in English relative clauses.

The present study aims at investigating the acquisition of relative clauses by Iranian learners of English to find whether explicit instruction can enhance the process of acquisition or not. In this study, intermediate learners of English are the target of research, since at intermediate levels of proficiency learners usually go through learning fluctuations to form their inter-languages.

2. Background to the study

Literature always mentions English relative clauses as a syntactic difficulty for EFL learners. Thus, different studies have focused on RCs in different languages. Among the many studies relating to RC structures, Rungruang and Chanthawee (2023) investigated the acquisition of Thai relative clauses through a teaching model called explicit instruction. Another objective of their study was to find out to what extent the performance of Thai university students fit the Noun Phrase Accessibility Hierarchy (NPAH) in that Subject RCs are considered the easiest form and Genitive RCs are the most difficult ones to acquire. In their study, twenty-two university students majoring in English spent four weeks learning English RCs through explicit instruction. The findings showed that students performed better in both sentences combining test and the translation task. Nonetheless, their performance did not fit the NPAH in all cases. This study showed that subject RCs were the easiest form to acquire as expected, but object and genitive RCs showed inconsistent results from the sentence combining test and the translation task. That is, students performed better in genitive RCs than in object RCs in the sentence combination task, but in the translation task, student had higher scores in object RCs compared to genitive RCs.

Regarding the cross-linguistic influence of L1 on L2/L3 and in the shadow of the interpretability Hypothesis, many studies have explored the second language acquisition of relative clauses and whether L2 speakers transfer a resumptive strategy from their L1 to L2. Solaimani et al. (2023) investigated the grammatical acceptability of different RC types in L2 English and whether reliance on a resumptive strategy is a syntactic or processing issue. The participants included 71 L1- Persian L2-English, 52 L1-French L2-English, and 44 native English speakers, who completed a proficiency c-test, a grammaticality judgment task, and a reading span working memory (WM) task. Unlike French, which is similar to English in the syntactic derivation of RCs, Persian is a structurally *wh*-in-situ language that syntactically allows resumption in direct object and object-of-preposition RCs. The results showed that unlike L1-French speakers, L1-Persian speakers were more likely to accept resumptive pronouns in L2-English RCs; however, both L1 and L2 groups overwhelmingly preferred a

gap over a resumptive strategy. The results suggested that given sufficiently high proficiency and long immersion experience, L2 speakers can match native speakers in terms of RC syntactic representations, implying that the issue faced by learners is a processing issue rather a representational one as suggested by the Interpretability Hypothesis.

Koçak (2020) explored Turkish Tertiary Level EFL learners' recognition level of relative clauses. This study also examined the difficulty level of types of relative clause construction for Turkish EFL learners and the effect of instruction on the learners' acquisition of English RCs. The data were gathered from two sequences of the same test (a pre-test and a post-test) given to 30 philology students. The data obtained from the pretest indicated that the participants needed remedial teaching; therefore, relative clauses were taught to students through six-hour form-focused class instruction. Two weeks later, a post-test was administered to the participants to assess the effectiveness of instruction on students' identification level of RCs. Koçak showed that although most of the participants were good at identifying relative clauses, their recognition level of RCs changed significantly according to the various types of RC constructions. In addition, the results showed that the explicit instruction facilitated the acquisition of relative clauses to a great extent. Results of this study emphasized the necessity and importance of form-focused instruction.

Among the Iranian studies done in this regard, in a recent study, Sadeghi et al (2022) investigated the role of two pedagogical interventions, namely textual input enhancement (TIE) and learners' output production (LOP) on noticing and learning English relative clauses. The findings revealed that LOP positively affected the learners' noticing and learning of RCs. The findings also showed that TIE only promoted the learners' noticing, but not learning of RCs. Although in this study the focus was on the role of input, RC types and details were not under investigation.

Mowlai (2021) investigated the typological features of Persian RPs in headed RCs. The first goal of his research was to find out the process of making RPs in Persian headed RCs. He focused on the three main universals in this regard including: base-generation, movement, and processing based universals. He also targeted the results of Keenan & Comeri (1977) who had worked on Persian pronoun retention strategy. Mowlai concluded that there are three main reasons for considering Persian as a language with base-generated RP procedure: first, Persian uses the complementizer (ke) at the beginning of all headed RCs; second, Persian has a strong island structure in RCs, and finally, Persian RCs are read the same in both gap and pronoun retention strategies. Mowlai indicated that Keenan & Comeri's Accessibility hierarchy for pronoun retention of Persian can be modified in two dimensions. While Keenan & Comeri (1977) claimed that Persian necessarily uses only the first strategy (gap strategy) in subject position of relative clauses, this paper presented some relative clauses which use pronoun retention strategy either optionally or obligatorily in subject position. Furthermore, according to Keenan & Comeri, in Persian, using pronoun retention strategy in complement position is an obligation. However, Mowlai presented some evidences showing that in some object-complement and complement-complement RCs with specific verbs, pronoun retention strategy is optional rather than obligatory.

In a quasi-experimental study, Nosratzadegan et al (2016) investigated the impact of input enhancement, metalinguistic feedback, and peer-editing on 73 intermediate female Iranian EFL learners' recognition of RCs. The findings highlighted the effectiveness of metalinguistic feedback and offered implications for more effective teaching of RCs to Iranian EFL learners.

In another study, Marefat and Abdollahnejad (2014) investigated the status of RPs in Persian L2 learners of English. They used a GJT and a translation test which were administered to two groups: 111 adult Persian learners of English at four different proficiency levels and 18 English native speakers. Repeated measures ANOVA showed that learners become more native-like in distinguishing and rejecting RPs in English as their level of proficiency improves, however, even advanced learners showed more notable performance deficit compared to the native speakers. In their study, different proficiency levels were taken into consideration, but RC types were not determined and classified.

Rezaei (2011), among other Iranian researchers, investigated the acquisition of some uninterpretable features among Persian learners of English. In his study, 60 participants in two intermediate and advanced levels completed a GJT including 45 items. The results depicted that only intermediate learners showed some variability in the use of RPs, while such variability disappeared to a great extent at the advanced stage of proficiency.

As can be seen, in all the recent studies done in Iran, relative clauses have generally been investigated without classifying the RC types. Moreover, in a few the studies, the role of explicit instruction has been investigated. What make the present study significantly novel is the specific attention to different kinds of relative clauses and focusing on the role of instruction in the acquisition of these structures. To fill this gap, the present study investigated the role of explicit instruction on the acquisition of 5 types of English relative clauses: subject, direct and indirect object, object of preposition, and genitive RCs. This study focused on the use of resumptive pronouns among intermediate university students in Iran, Isfahan. The study tried to compare the performance of students before and after receiving the explicit instruction.

2. Method

Participants

The participants of the present study consisted of 35 intermediate university students studying at the University of Isfahan. They were studying at the first semester (math, computer, and statistics) and were grouped as homogenous by the Language center of the university based on their English score in the Entrance exam of the universities held by Sanjesh organization. For all the students, Persian was the mother tongue and all of them had started studying English after puberty (around 14). The participants went through a pre-test, a treatment (instruction of English relative clauses), and two immediate and delayed post-tests.

Instruments

The Grammaticality Judgment Test

The grammaticality judgment tests used in this study at the three phases of pre/, immediate, and delayed post-tests consisted of 33 English sentences with different grammatical

structures some of which contained relative structures and some others were used as distractors. At each phase, the sentences were modified to avoid memory effect. The students were asked to mark the sentences as grammatical or ungrammatical. The students were also supposed to modify the ungrammatical sentences and provide the correct forms as well.

The Sentence Combination Task

The sentence combination tasks included 20 pairs of sentences which were supposed to be combined by the students to get a final sentence including both parts. 10 pairs of sentences were used as distractors and for each pair some initial words were given as the clue. The SCT also was held in pre, immediate, and delayed post-tests.

Relative clause teaching materials

Some pedagogical RC PowerPoint files were used as the treatment in the class by the teacher and all 5 types of RCs under investigation were reviewed. The lessons started with a review of English relative clauses and proceeded with providing the students with examples of English relative structures. Resumptive pronouns were introduced and reviewed in all 5 RC types.

Procedure

Two GJ and SC tests were given to the students as the pre-test to investigate their initial state. After a week, the students received a four-session teaching of relative clauses. Immediately after the treatment, the first post-tests (GJT and SCT) were held and with an interval of two weeks, the delayed post-tests were administered. Paired t-tests were used to determine the differences between mean performances of the students in the pre and post-tests and to see if the teaching sessions had any significant influence on their improvement.

3. Results

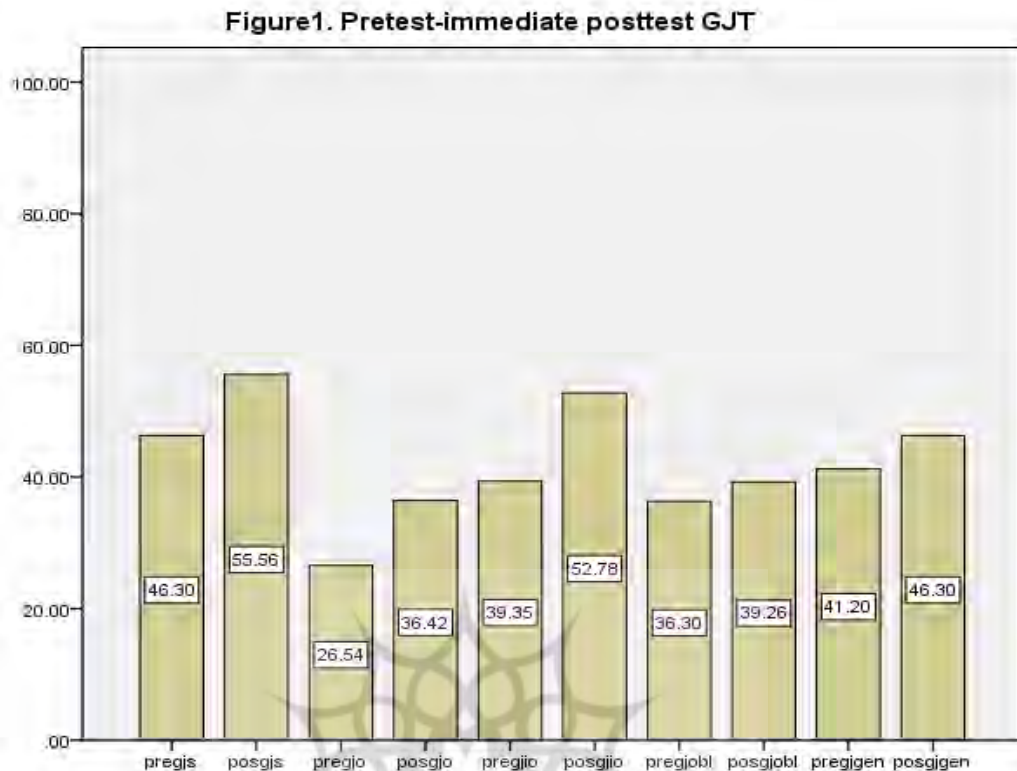
Results from the GJT

Table 1 below compares the total performance of the students in pre and immediate GJTs in both grammatical and ungrammatical sentences. As can be seen, there is not a significant difference between the students' performances in pre and immediate posttests. The only significant difference is observed in indirect object relative clauses ($p: 0.049$).

Paired Samples Test Table 1. *Pre-test, immediate posttest GJT.*

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pregjs – posgjs	-9.25926	32.07424	6.17269	-21.94741	3.42889	-1.500	26	.146
Pair 2	pregjo – posgjo	-9.87654	26.35607	5.07223	-20.30266	.54957	-1.947	26	.062
Pair 3	pregjio – posgjio	-13.42593	33.77775	6.50053	-26.78796	-.06389	-2.065	26	.049
Pair 4	pregjobl – posgjobl	-2.96296	29.19626	5.61882	-14.51262	8.58669	-.527	26	.602
Pair 5	pregjgen posgjgen	-5.09259	28.43246	5.47183	-16.34010	6.15491	-.931	26	.361

Figure 1. Below represents the same information obtained from the pretest and immediate posttest in GJT.



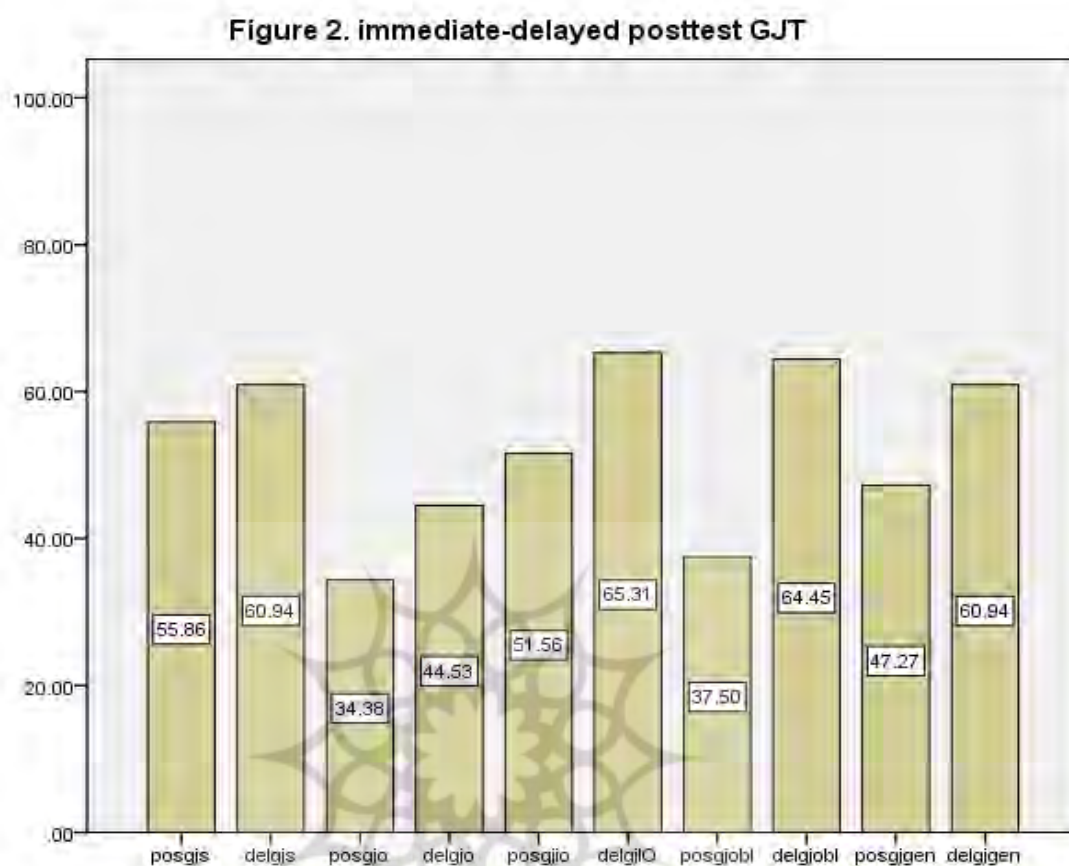
To get a clearer picture of the students' performance paired samples t-tests were also held for grammatical and ungrammatical sentences separately. The students didn't show any significant improvement in distinguishing the correct sentences, but they performed significantly better at distinguishing ungrammatical direct and indirect object RCs ($p:0.013$, $p: 0.032$).

Table 2 below compares the performances of the students in immediate and delayed GJTs. It can be seen that except for the subject RC, there are meaningful differences between the two tests for all other RC types (object RC, $p: 0.43$; indirect object RC, $p: 0.013$; object of preposition RC, $p: 0.000$, and Genitive RC, $p: 0.021$). The results of the grammatical/ungrammatical t-tests also showed that the students performed better at distinguishing correct object and oblique RCs ($p: 0.032$, $p: 0.000$). In distinguishing ungrammatical sentences, only Genitive RCs were observed to differ significantly ($p: 0.040$).

Table 2. Immediate and delayed posttest GJT. Paired Samples Test

		Paired Differences			T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	posgjs – delgjs	-5.07813	28.72621	5.07812	-1.000	31	.325
Pair 2	posgjo – delgjo	-10.15625	27.24954	4.81708	-2.108	31	.043
Pair 3	posgjio – delgjio	-13.75000	29.52582	5.21948	-2.634	31	.013
Pair 4	posgjobl – delgjobl	-26.95313	25.42172	4.49397	-5.998	31	.000
Pair 5	posgigen – delgigen	-13.67188	31.80703	5.62274	-2.432	31	.021

The information presented in table 2 above, is shown in figure 2 below:



Results from the SCT

According to the findings of the SCT in table 3, there is not a meaningful difference between the pre-test and the immediate posttest in any of the RC types.

Table 3. Pre-test/Immediate posttest SCT. Paired Samples Test

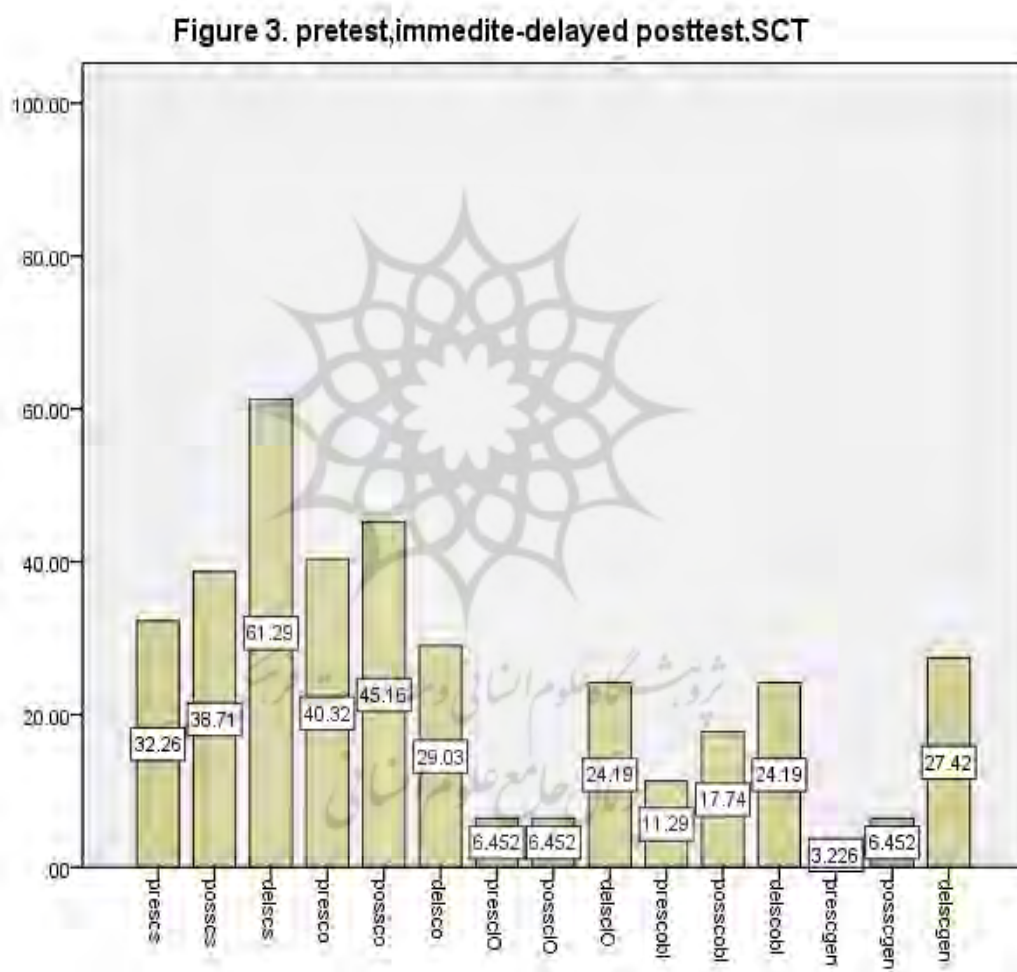
		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	prescs – posscs	-9.37500	44.78893	7.91764	-25.52313	6.77313	-1.184	31	.245
Pair 2	presco – possco	-6.25000	54.99267	9.72142	-26.07697	13.57697	-.643	31	.525
Pair 3	prescIO – posscIO	-1.56250	23.70645	4.19075	-10.10959	6.98459	-.373	31	.712
Pair 4	prescobl – posscobl	-6.25000	24.59347	4.34755	-15.11689	2.61689	-1.438	31	.161
Pair 5	prescgen – posscgen	-3.12500	21.76673	3.84785	-10.97274	4.72274	-.812	31	.423

Table 4 shows a significant difference between the students' performances in immediate and delayed SCT posttests in subject (p: 0.032), indirect object (p: 0.019), and genitive (p: 0.005) RCs.

Table 4. Immediate/delayed posttest SCT. Paired Samples Test

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	posses – delscs	-21.87500	55.26695	9.76991	-41.80086	-1.94914	-2.239	31	.032
Pair 2	possco – delsco	15.62500	49.53864	8.75728	-2.23559	33.48559	1.784	31	.084
Pair 3	posscoIO – delscIO	-17.18750	39.36876	6.95948	-31.38145	-2.99355	-2.470	31	.019
Pair 4	posscoobl – delscobl	-6.25000	30.45356	5.38348	-17.22968	4.72968	-1.161	31	.255
Pair 5	possccgen -delsccgen	-20.31250	37.80121	6.68237	-33.94129	-6.68371	-3.040	31	.005

The results obtained from tables 3 and 4 are summarized in figure 3 below:



As can be seen, the students' mean performances are meaningfully different in subject, indirect object, and genitive relative clauses.

4. Discussion

The GJT

On the basis of the results shown in the previous section, it can be inferred that the treatment did not have any significant influence on the students' general performances in the immediate posttests. The only RC type with an improved mean performance is the indirect object.

Regarding the distinguishing grammatical/ungrammatical sentences, no significant difference has been observed. Here again, students performed better only in direct and indirect object RCs. This is quite contrary to what is usually expected, since after any explicit instruction the performance of the students improves as a result of learning or memorization.

Compared to the immediate posttest, the results obtained from the delayed posttest showed a general improvement in all RC types except for the subject RC. There are three main reasons to justify this result: first, subject relative clauses in Persian and English are very similar and, in both languages, RPs are not allowed in this position; second, it can be said that since subject RCs are usually the easiest for the students, no difference has been observed after receiving the treatment; finally, subject RCs are the only type of RC which are usually present in textbook examples and students have usually seen many examples of this structure.

On the basis of the findings, it seems that the teaching sessions have improved the students' performances in the other types of RCs; the students were more successful in identifying the grammatical object and oblique RC sentences and the ungrammatical Genitive RC sentences after receiving the RC teaching sessions. Since indirect object RCs showed a general improvement in both immediate and delayed posttests, it can be discussed that explicit teaching of relative clauses of this type has a positive influence on the process of acquisition.

Remembering that unlike English, in Persian, oblique RCs are only grammatical with the use of an RP in place of the relativized head noun, Persian learners of English showed that instruction would be helpful for resetting this resumptive principle in English. It is therefore observed that providing enough input helped students become more sensitive to the ungrammaticalities in the sentences. In other words, instruction has improved noticing input.

The SCT

As can be seen in tables 3 and 4 above, the performances did not differ significantly in pretest and immediate posttest. It seems that the students' performances were not affected by the teaching sessions and they did almost the same in pre-test and the immediate posttest; however, in the delayed posttest, there are meaningful improvements in subject, indirect object, and genitive RC structures. Generally speaking, the teaching sessions showed some positive influence on the students' performances in the delayed posttest.

Compared to the GJT, the students showed that the SCT had been more challenging for them. The less improvement observed in the results might be associated with the difficulty the students found in SCT per se as well as the RC structures.

5. Conclusion

This study was an attempt to investigate the potential influence of explicit instruction of 5 types of relative clauses on the performance of intermediate university students in Iran. It is generally expected that any teaching program should enhance the students' abilities in performing better in tests specifically in immediate posttests. The results of this study did not show such an improvement; rather, the students got better results in delayed tests.

What is observed in the present study is that teaching of relative clauses could improve the students' performances in some RC structures, but not in all the predicted areas. Moreover, the students did not behave steadily well in judging grammatical/ungrammatical sentences and in

combining the sentences in the SCT. As a result, some forms of instability in learning can be observed among intermediate learners. This is in line with the previous findings regarding intermediate learners' variability in the process of acquisition. It can be concluded that Persian speakers in this study benefited from the teaching sessions in this research work, but due to the potential negative transfer from their L1 (Persian) and maybe their fossilized inter-languages, they could not show the maximum level of change after the treatment.

The findings are to some extent in line with Tsimplici and Dimitrakopoulou (2007) who asserted that uninterpretable features, such as resumptive pronouns, are unavailable in second language acquisition after the critical period. In other words, acquiring an uninterpretable feature like resumptive pronouns in L2 English input is challenging for adult learners. However, based on the results obtained in specific types of RCs such as direct/indirect object and genitive, it can be concluded that at intermediate levels of proficiency, language learners might need to be provided with more intensive instructions and input both qualitatively and quantitatively. It is predicted that more input can make up for the critical period deficit. As a result, it is concluded that the shortage of instruction and input is clearly seen in the Iranian context of education. The evidence for this claim comes from a great number of Iranian English textbooks which abound with English lessons on relative clauses without providing the required input on different RC types. A quick look at the content of textbooks shows that there is not enough instruction of relative clauses and even if explicit instruction is found, it is only for subject relative clauses and not any other types. This might be a reason behind the students' instability in performing well in GJT and SCT tests in this study.

It is worth pointing out that students in Iran are learning English in a foreign rather than a second language context, therefore both instruction and input play very important roles in their success. Unfortunately, what is practically observed in classrooms is the lack of both explicit instruction and enough input (texts or exercises).

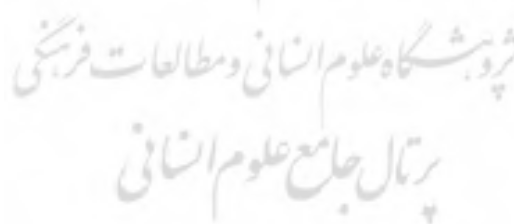
Since the findings of the present study are only obtained from one level of proficiency, i.e., the intermediate university students, they cannot be overgeneralized to higher levels of proficiency. But for intermediate learners of English, this study supports Rezaie (2011) who suggested that the intermediate learners showed instability in the use of resumptive pronouns. Whether such variability will wane at the advanced stage of proficiency or not can be subject to future research.

In the present study, the students showed instability in using resumptive pronouns or gaps in English sentences. This phenomenon can be associated with some evidences presented by Mowlaei (2021) which showed that in some Persian object-complement and complement-complement RCs with specific verbs, pronoun retention strategy is not obligatory. It is therefore concluded that Persian speakers negatively transfer this feature from their mother tongue to the context of learning English.

In language acquisition, it is expected that the role of explicit instruction as well as implicit input (Krashen, 1992) is taken into consideration. While the present study investigated the role of instruction, some may claim that the improvements observed are merely explicit changes and do not necessarily lead to acquisition. In response, the following discussion is put forward: after any explicit instruction a kind of short-term learning is observed which can usually be

associated with memorization. After the instruction is over, attrition may occur and the improvements disappear. However, in this study, the learners showed a significant level of improvement in the delayed posttests not in immediate posttests. The reason is that the focus of instruction has been on different types of RCs, not on the general RC structure; consequently, the amount of implicit input has increase, and as a result of explicit instruction, learners have been able to notice the structures in delayed tests. It is to some extent acceptable that explicit instruction might not directly lead to acquisition, but according to Ellis' *weak interface hypothesis* (1993) it definitely makes learners pay closer attention to input and consequently acquisition occurs as an indirect outcome.

Regarding the interpretability hypothesis, the findings of the present study propose the following conclusion: if language learners, especially in a foreign language context, are provided with enough input and still don't acquire an uninterruptable feature, (Resumptive pronouns in this case), then it can be said that fossilization has occurred and the interpretability hypothesis will be confirmed. However, due to the fact that the participants of this study were only intermediate learners and had not been exposed to an acceptable amount of input, the results cannot be overgeneralized. This implication can be investigated for advanced learners of English in future studies, since they are pedagogically exposed to more data. Also in future studies, the role of implicit input rather than explicit instruction can be the focus of investigation to shed more light on the findings of the present work.



References

- Chomsky, N. (1995). *The minimalist program*. Cambridge, MA: MIT Press.
- Ellis, R. (1993). The structural syllabus and second language acquisition. *TESOL quarterly*, 27(1), 91-113.
- Franceschina, F. (2002). Case and ϕ -feature agreement in advanced L2 Spanish grammars. In Susan H. Foster-Cohen, T. R., & Marie-L. P. (Eds.), *EUROSLA Yearbook 2* (pp. 71-86). Amsterdam: Benjamins.
- Franceschina, F. & Hawkins, R. (2003). Explaining the acquisition and non-acquisition of determiner-noun gender concord in French and Spanish. In Prévost, P., & Paradis, J. (Eds.), *The acquisition of French in different contexts* (pp. 175-205). Amsterdam: Benjamins.
- Gavrusseva, E. & Lardiere, D. (1996). The emergence of extended phrase structure in child L2 acquisition. In Aandy, S.; Dalia, C. A; Elizabeth H; & Aandrea Z. (Eds.), *Proceedings of the 20th Annual Boston University Conference on Language Development* (pp. 225-236). Cascadilla Press.
- Hawkins, R. & Casillas, G. (2008). Explaining frequency of verb morphology in early L2 speech. *Lingua*, 118, 595-612.
- Hawkins, R. & Chan, C. (1997). The partial availability of universal grammar in second language acquisition: the failed functional features hypothesis. *Second Language Research*, 22, 269-301.
- Hawkins, R. & Liszka, S. (2003). Locating the source of defective past tense marking in advanced L2 English speakers. In Roeland, V. H.; Aafke, H.; Folkert K.; & Richard T. (Eds.), *The interface between syntax and lexicon in second language acquisition* (pp.21-44). Benjamins.
- Hazdenar, B. & Schwartz, B. D. (1997). Are there optional infinitives in child L2 acquisition? In Elizabeth Hughes, Mary Hughes, & Annabel Greenhill (Eds.), *Proceedings of the 21st Annual Boston University Conference on Language Development* (pp. 257-268). Cascadilla Press.
- Keenan, E. & Comrie, B. (1977). Noun phrase accessibility and universal grammar. *Linguistic Inquiry*, 8 (1), 63–99.
- Koçak, A. (2020). Turkish tertiary level EFL learners' recognition of relative clauses. *Journal of Language and Linguistic Studies*, 16(4), 1637-1655. [10.17263/jlls.850976](https://doi.org/10.17263/jlls.850976).
- Kong, S. (2011). The non-droppability of uninterpretable features in SLA: On interpretation of resumptive pronouns in L2 Chinese. *Taiwan Journal of Linguistics*, 9(2), 147-180.
- Krashen, S. (1992). The input hypothesis: An update. *Linguistics and language pedagogy: The state of the art*, 409-431.
- Lardiere, D. (2008). Feature assembly in second language acquisition. In Juana Liceras, Helmut Zobl, & Helen Goodluck (Eds.), *The role of features in second language acquisition* (pp. 106-140). Erlbaum.
- Lardiere, D. (2009). Some thoughts on the contrastive analysis of feature in second language acquisition. *Second Language Research*, 25, 171-225.
- Lardiere, D. (1998a). Case and tense in the 'fossilized' steady state. *Second Language Research*, 14, 1-26.
- Lardiere, D. (1998b). Dissociating syntax from morphology in a divergent L2 end- state grammar. *Second Language Research*, 14, 359-375.
- Lardiere, D. (2005). On morphological competence. In Laurent Dekydtspotter, Rex A Sprouse, & Audrey Liljestrang (Eds.), *Proceedings of the 7th Generative Approaches to Second Language Acquisition Conference (GASLA 2004)* (pp. 178-192). Cascadilla Press.
- Liszka, S. A. (2004). Exploring the effects of first language influence on second language pragmatic processes from a syntactic deficit perspective. *Second Language Research*, 3, 212-231.
- Marefat, H. & Abdollahnejad, E. (2014). Acquisition of English Relative Clauses by Adult Persian Learners: Focus on Resumptive Pronouns. *The Journal of Teaching Language Skills (JTLS)*, 5 (4), 19-40.

- McCarthy, Corinne. (2007). *Morphological variability in second language Spanish*.
- Mowlaei, H. (2021). Typological Study of Resumptive Pronouns in Persian Relative Clause. *Journal of Linguistics & Khorasan Dialects*, 13(1), 113-140. [10.22067/jlkd.2021.70621.1033](https://doi.org/10.22067/jlkd.2021.70621.1033).
- Nosratzadegan, N.; Seifoori, Z. & Mafton, P. (2016). Persian Speakers' Recognition of English Relative Clauses: The Effects of Enhanced Input vs. Explicit Feedback Types. *Issues in Language Teaching (ILT)*, Vol. 5, NO.2, 211-232.
- Prévost, P. & White, L. (2000). Missing surface inflection hypothesis or impairment in second language acquisition? Evidence from tense and agreement. *Second Language Research*, 16, 103-133.
- Rezai, M. J. (2011). Acquisition of resumptive pronouns in interrogative embedded clauses by Persian learners of English. *Iranian EFL Journal*, 7(4), 24-44.
- Rungruang, A. & Chanthawee, C. (2023). The effects of explicit instruction on English relative clauses. *Journal of Humanities and Social Sciences University of Phayao*, 11(1), 67-96
- Sadeghi, S.; Maftoon, P. & Yazdanimoghadam, M. (2022). An Investigation into Textual Input Enhancement and Output Production in Relation to the Noticing of English Relative Clauses: The Case of Iranian EFL Learners. *Journal of Language Horizons*, 6(1), 7-27. [10.22051/ghor.2021.32221.1334](https://doi.org/10.22051/ghor.2021.32221.1334).
- Solaimani, E.; Myles, F. & Lawyer, L. (2023). Testing the Interpretability Hypothesis: Evidence from acceptability judgments of relative clauses by Persian and French learners of L2 English. *Second Language Research*, [02676583231162783](https://doi.org/10.26765/83231162783).
- Taghavipour, M. A. (2004). An HPSG analysis of Persian relative clauses. In S. Muller (Ed.). *Proceedings of the HPSG 04 Conference* (pp. 274-293). CSLI Publications.
- Taghavipour, M. A. (2005). *Persian relative clauses in head-driven phrase structure grammar*. Doctoral dissertation, University of Essex, England.
- Tsimpli, I. M. & Dimitrakopoulou, M. (2007). The interpretability hypothesis: Evidence from Wh-interrogatives in SLA. *Second Language Research*, 23, 215-242.
- Tsimpli, I. M. (2006). *Variation in SLA*. in *Encyclopedia of language and linguistics* (2nd edition). Unpublished doctoral dissertation, McGill University, Montréal.