Defossilization of Fossilized Pragmatic Routines: Corpus-Driven Input-Based and Output-Based Instruction

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Abstract

Mainstream L2 pragmatic research has shown that pragmatic fossilization is quite common among L2 learners at almost all levels of proficiency. This study examined the defossilizing effect of corpus-driven activities on 10 situationally-based pragmatic routines under two instructional conditions, i.e. input-based and output-based treatments. Participants were 33 advanced EFL learners in two classes in a private English language center. They received instruction in four sessions across two weeks. Before and after the treatment, a WDCT was administered for pretest and posttest purposes. The results of paired-samples and Independent Samples *t*-tests showed that input-enhancement and output-based instructions were effective in defossilization pragmatic routines which had a strong fossilization tendency among learners. Both treatment tasks led to significant increases in learners' comprehension and production of the routines. The output-based group; however, significantly outperformed the input-based group in the production of the routines. The findings indicate that pragmatic instruction can debilitate the fossilization tendencies of pragmatic routines and that different instructional tasks have differential effects on the production and comprehension of pragmatic routines. The pedagogical implication of this study is that a combination of instructionally supported corpus-based tasks would be effective for enhancing EFL learners' ability to comprehend and use routines appropriately in context.

1. Introduction

A common observation among advanced L2 learners is that despite having an acceptable command of grammatical knowledge, they often fail to use language appropriately in different contexts and registers (e.g. Bardovi-Harlig, 1999; Bardovi-Harlig & Hartford, 1990, 1993; Eslami-Rasekh, 2005; Liu, 2006; Roever & Al-Gahtani, 2015; Tajeddin & Hosseinpur, 2014; Woodfield, 2008). The situation is even worse in EFL contexts where limited opportunity for interaction with native speakers of English (Kasper & Rose, 1999) plays a debilitative role in the development of L2 pragmatic competence. The difficulty associated with mastering pragmatic features has led some researchers to conclude that pragmatic competence is the most challenging aspect of the language to master for L2 learners (e.g. Blum-Kulka & Sheffer, 1993). One corollary of this conclusion is that pragmatic components are not only likely but, in some senses, primary candidates for fossilization, particularly in EFL contexts (Romerro-Trillo, 2002; Tajeddin, Alemi, & Pashmforoosh, 2017).

An excursion into fossilization literature, however, shows that, aside from a few noteworthy exceptions (e.g. Hall, 2009; Romerro-Trillo, 2002), previous research has stalled short of studying fossilization and defossilization of pragmatic features. Considering the serious consequences that persistent pragmatic failures can have for L2 speakers, particularly higher proficiency ones (Gass, 1995; Saeko Fukushima, 1990; White, 1993), studying pragmatic fossilization merits attention. In view of the present gap in L2 pragmatic literature regarding the fossilization and defossilization of pragmatic features, the purpose of the present study is to examine the effect of two corpus-based types of instruction, i.e. input-based and output-based, on defossilization of 10 pragmatic routines among advanced Iranian EFL learners with a fossilized competence of these routines.

2. Literature Review

2.1. L2 Fossilization and Defossilization

Fossilization is one of the fundamental constructs in SLA introduced by Selinker (1972) to describe the failure of the vast majority of adult learners to achieve native-like competence in an L2. As a demarcation point between L1 and L2 acquisition, Selinker (1972) defined fossilization as:

> A mechanism which is assumed also to exist in the latent psychological structure … Fossilizable linguistic phenomena are linguistic items, rules, and subsystems which speakers of a particular NL will tend to keep in their IL relative to a particular TL, no matter what the age of the learner or the amount of explanation and instruction he receives in the TL. (p. 215)

Selinker and Lamendella (1979) broadened the scope of fossilization to include all levels of L2 structure and described it as "a relatively permanent cessation of interlanguage (IL) learning before the learner has attained target language norms at all levels of linguistic structure and in all discourse domains in spite of learners` ability, motivation, and opportunity for further progress" (p. 373). Han (2006) took Selinker and Lamendella`s (1979) definition one step further and defined fossilization as a competence phenomenon which is manifested only at the discourse level. She justified her claim by drawing on Jakubowicz's (2002) model of syntactic complexity. She argued that complexity and variability are interrelated and noted that those parts of interlanguage which are controlled by discourse-pragmatic conditions, i.e. soft features (Sorace, 2005), require the integration of syntactic knowledge with knowledge from other domains, including semantics, pragmatics, and discourse.

During the past four decades, research on L2 fossilization has mainly been concerned with linguistic errors. A large body of studies has investigated syntactic, morphological, and phonological fossilization (e.g. Lardiere, 1998; Washburn, 1994). However, fossilization in relation to pragmatics has remained relatively unexplored. In a longitudinal study, Lardiere (1998), for example, monitored grammatical errors in the interlanguage of Patty, an adult Chinese ESL learner, for a period of ten years. At the time of data collection, Patty had been living in the USA for ten years and when the final dataset was collected, he had been living there for 20 years. Data comprised three audio-recorded conversations between Patty and the researcher and two grammaticality judgment tasks which were collected cross-sectionally, i.e. at different points in time with regular intervals. Qualitative analysis of the data showed that Patty persisted in producing erroneous morphological markings on verbs over the ten years while her ability to produce extended phrase structures in English was almost native-like. Based on these findings, Lardiere concluded that ESL learners may have access to some aspects of UG including knowledge of abstract syntactic structures. However, they do not have access to the procedures which are needed to extract these structures and apply them to morpho-phonological forms. He also came up with the conclusion that some aspects of grammar are more prone to fossilization.

In another study, Washburn (1994) assigned 18 undergraduate students at a US university to a fossilized group and a non-fossilized group. The assignment criteria were length of residence and whether or not they had ever failed an ESL course. Participants in the fossilized group had been living in the US from six months to four-and-a-half years and had failed at least one ESL course. Length of residence for those in the non-fossilized group was between five to seven years and they had never failed an ESL course. Three

types of data collection instruments were utilized: an interview, a grammaticality judgment task, and an imitation task. In addition, all participants engaged in a learning task in which they received instruction on those structures they made errors in the grammaticality judgment task and imitation task. The findings of the study showed that participants in the non-fossilized groups benefited from instruction more than those in the fossilized group. Also, the findings showed that the non-fossilized group had more stability in the production of the correct forms after treatment than the fossilized group.

Despite receiving wide recognition in SLA research, fossilization of soft properties (i.e. discourse-pragmatic features) has remained relatively underexplored. This is in spite of the fact that the existence of pragmatic fossilization has been confirmed by the general findings in most studies showing advanced learners` failure to use the L2 appropriately and effectively after years of formal instruction (e.g. Bardovi-Harlig & Hartford, 1990, 1993; Roever & Al-Gahtani, 2015; Woodfield, 2008). An exception is Romero Trillo`s (2002) study which investigated fossilization of DMs in child and adult SLA. He investigated the development of discourse markers in native and non-native child and adult English language speakers. He reported that advanced L2 speakers of English did not have the competence to use discourse markers required in casual conversation and that this leads to pragmatic fossilization. To explain these findings, Romero Trillo hypothesized that EFL learners seem to follow a "binary track" (p. 770) in their L2 linguistic acquisition: the formal vs. the pragmatic track. Development along these two tracks would occur simultaneously in L1 acquisition as a result of exposure to natural language contact. For EFL learners, however, linguistic and pragmatic development would occur through formal instruction and since it is often almost impossible to create (pseudo)-natural foreign language context in formal education, pragmatic competence often lags far behind grammatical competence and it is amenable to fossilization. Accordingly, he explained pragmatic fossilization as "the phenomenon by which a non-native speaker systematically uses certain forms inappropriately at the pragmatic level of communication" (p.770). Arguing in a similar vein, Han (2006) described fossilization as a competence phenomenon which is manifested only at the discourse level.

Employing a typical-error method, Tajeddin et al. (2017) aimed to identify the fossilization tendency of a number of pragmatic routines among 230 Persian-speaking EFL learners from different proficiency levels and explored the likely sources of their fossilization. They administered a pragmatic routines test to the participants and, based on their responses, they determined the common errors committed by most of the participants in all the proficiency groups. Subsequently, retrospective interviews were conducted with 15 highly fossilized advanced learners to explore the likely

sources of the typical errors across the three proficiency groups. The findings showed that participants' lack of sociopragmatic knowledge was the main reason underpinning their failures. It was found that first language transfer, lack of knowledge, and overgeneralizations were among the most frequent sources of pragmatic fossilization. The researchers attributed this to the insufficient authentic input EFL learners are exposed to.

A different line of research in fossilization studies has explored the effect of various types of instruction on impeding the fossilization of language features. Vigil and Oller (1976), for example, studied the effect of interactive feedback conditions on determining which linguistic rules of IL system are the potential candidates for fossilization. They distinguished between cognitive and affective feedback as two different facets of feedback and argued that cognitive feedback which is used to exchange information, facts and supposition usually by using language is the most significant de-stabilizing factor in the development of IL rules although they acknowledge the mediating role that affective feedback which is used to express messages using non-linguistic devices like body language can have in fossilization of either correct or incorrect forms. Following Vigil et al. (1976), Brown (2001) argued that fossilization may be the result of lack of corrective feedback on the part of the teacher to have learners make alternations in their utterances. In a similar vein, Skehan (2002, p. 85) argued that "even within constraints that individual factors have great importance, it is nonetheless accepted that … types of feedback on learner production can have some impact".

Mukkatash (1986), on the other hand, reported quite different findings. He studied the effect of corrective feedback and grammatical explanation on a set of common errors (e.g. erroneous tenses and relative clauses) made by his adult Arabian students. He found that grammar correction and feedback did not exert a significant influence on defossilizing these errors and his students kept making these errors. He, therefore, argued that systematic error correction and explicit grammar instruction cannot necessarily stop fossilization. In another study, Washburn (1994) reported the partial effectiveness of corrective feedback in defossilizng grammatical errors. He compared the impact of corrective feedback on the grammatical errors made by a fossilized group and a non-fossilized group of learners. The findings demonstrated that the treatment sessions were more effective in the non-fossilized group, leading to faster improvements in accuracy while using the target constructions. In the fossilized group, by contrast, participants learned to use approximately a third of the target constructions accurately and they kept perpetrating the same errors while using the target constructions. The studies on interlanguage defossilization, however, have mainly examined the effect of instruction on defossilizing grammatical features. To the

researchers` knowledge, no outstanding study has to date examined the effect of instruction on defossilizing pragmatic features.

2.2. Pragmatic Routines

Pragmatic routines are "highly conventionalized prepatterned expressions whose occurrence is tied to more or less standardized communication situations" (Coulmas, 1981, pp. 2-3) and are essential in dealing with everyday situations. They are generally divided into two types: conversational routines and situationally bound utterances (SBUs) (Kecskes, 2010). While the former is functionally bound, the latter is situationally bound. As noted by Bardovi-Harlig (2012), routines such as *you know* (House, 2009; Pilcher, 2009) and *I mean* and *you see* (Romero Trillo, 2002) represent functionally bound expressions. As for SBUs, Kesckes (2010) considers them as formulas specific to the context in which they are used. Hall (2009) provides some examples of these routines, including expressions serving as topic-opening (e.g., *So what's up with you*?), expressions of honorifics (e.g., *Your Highness*, I am deeply honored), or expressions conveying affective content (e.g., *That's what I'm talking about*).

House (1996) described pragmatic routines as an integral part of everyday conversations and argued that "it is important to learn routines at any learning stage because they embody the societal knowledge that members of a given speech community share" (p. 226). The findings of several studies have indicated that the representation of pragmatic routines in L2 textbooks is absent, decontextualized, or even inaccurate (Bardovi-Harlig, Mossman, & Vellenga, 2015a; Cohen & Ishihara, 2013; Eisenchlas, 2011; Ishihara & Cohen, 2010; Vellenga, 2004; Williams, 1988), thus, making this aspect of pragmatic competence quite susceptible to fossilization.

Several studies have investigated the effectiveness of corpus-based noticing activities on learners' ability to produce and recognize formulaic expressions. Furniss (2016), for example, examined the effectiveness of input for teaching nine pragmatic routines in Russian which were new to learners. Participants were 34 learners of Russian as a foreign language who were assigned to the control group and the instructional group ($N = 18$). They took part in a self-paced 4.5-5.0 hours instruction via the web. The pre-test, post-test, and delayed post-test had three subsections: (a) two scenarios which elicited a written response, (b) six multiple-choice scenarios, and (c) an 18-item recognition task. The findings revealed significant improvement in learners` ability to produce appropriate routines from pre-test to post-test in the instructed group. Besides, the analysis of responses to the judgment task demonstrated that the instructed group`s ability to recognize non-authentic expressions witnessed a considerable improvement compared with the control group.

Bardovi-Harlig and Vellenga (2012) also used the conversation of the *Friends series* to teach 30 pragmatic routines. The purpose of the study was to compare the effectiveness of instruction and mere exposure. Participants were divided into two groups; Group A were given noticing activities on the first half of the expressions (Set A) and Group B did the noticing activities on the second half (Set B). The participants took a pretest and then received three one-hour lessons over three weeks. The posttest was administered one week after the final treatment session. Both pretest and posttest measured oral production of the expressions. The findings documented that both instruction and exposure to the expressions were effective for the learners in both groups. Also, Bardovi-Harlig et al. (2015b) supplemented noticing activities with communicative oral practice to teach 16 routines used in academic discussions. In the first part of the instruction, participants were engaged in noticing activities and, in the second part, they were given oral activities in which they were supposed to use the routines they had noticed. The pretest and posttest required oral production of the routines in simulated team works on a computer. Participants were 37 learners in four classes. Two classes received the instructions over a period of two weeks, and two classes served as the control group. The results showed significant improvements in learners` ability to produce the pragmatic routines in the instructed group.

In another corpus-based study, Bardovi-Harlig, Mossman, and Su (2017) compared the effect of using direct corpus searches by learners and studying teacher-developed corpus-based materials on the acquisition of pragmatic routines used for agreement, disagreement, and clarification in academic English discussion in four 50-minute lessons across two to three weeks. The pre- and post-tests were computer-delivered oral tasks consisting of 30 items. Based on the results, significant improvements were made in the oral production of the routines in both treatment groups.

Overall, the general insight gleaned from the literature indicated that noticing activities and oral production activities hold promises for the instruction of pragmatic routines. In studies reviewed, however, the researchers have generally investigated the effectiveness of instruction on a set of randomly selected expressions that were used as the basis for instruction. In the present study, we aimed to explore the use of corpus-based noticing activities and oral production activities on defossilization of routines with fossilization tendencies. To this end, the following research questions were formulated:

1. Do corpus-driven input-based and output-based activities have any significant effect on the defossilization of pragmatic routines among EFL learners?

2. Is there a significant difference between the performances of the input-enhancement and the output-based groups in the comprehension of pragmatic routines?

3. Is there a significant difference between the performances of the input-enhancement and the output-based groups in the production of the pragmatic routines?

3. Method

3.1. Participants

Participants were 33 advanced learners, consisting of 15 males and 18 females. They were taking part in Cambridge CPE exam preparation courses which, according to the Common European Framework of Reference, are equivalent to advanced proficiency levels. They ranged in age from 18-37 (M = 23.18, SD = 1.17). To select this group of participants, henceforth called *"fossilized advanced learners"*, a written discourse completion test (WDCT) which evaluated learners' ability to employ appropriate pragmatic routines in response to 20 situations was administered to 93 advanced learners who were studying English in a private language institute. At the same time, the test was administered to 32 American native speakers of English online. Learners' responses to the WDCT were compared with those given by native speakers and each response was assigned either 0 or 1 based on whether it was appropriate (1 = appropriate) or inappropriate (0 = inappropriate). Thirty-five learners who fell at least one-half standard deviation (SD) below the mean on the test were considered to possess a fossilized competence of the target pragmatic features.

Participants were randomly assigned to the two modes of treatment, that is, input-enhancement and output-based groups. Two participants in the input-based group participated in only one of the treatment sessions. Consequently, they were excluded from the final analysis of the data. Table 1 below presents gender distribution of participants in the two modes of instruction.

Table 1
Frequency Distribution of the Participants in the Two Treatment Groups

Pragmatic feature	Treatment type	Gender		Total
		Male	Female	
	Input-based Instruction	9	8	17
Pragmatic Routines	Output-based Instruction	8	10	18
	Total	15	18	33

3.2. Instructional Materials

This study is part of a large-scale study which sought to examine the overriding acquisition regularities of pragmatic routines. In this study, we examined whether and how direct corpus searches by learners is likely to hamper the fossilization tendency of routines. The target of instruction included a total of 10 pragmatic routines which were found to have strong fossilization tendencies in advanced learners' IL based on the findings of a descriptive study conducted prior to this study. These expressions included '*Thanks for having me',* saying to the host while leaving a party, to let somebody know you will answer the phone, '*Go ahead',* used to let somebody say or do something, '*Long time no see'*, '*After you'*, while entering a place, '*You have the wrong number'*, on the phone, '*(you`ve)mistaken me for someone else'*, '*sorry to hear that'*, *'No problem/That`s Ok',* in response to 'I`m sorry', '*Make yourself at home',* saying to a guest to make him feel relaxed, and '*Can I leave a message?',* on the phone.

The instruction in both groups was corpus-based. Corpus of Contemporary American English (COCA) was used to design the activities. We contrasted two different approaches to corpus-driven instruction in this study, i.e. input-based and output-based instruction. In both groups, learners were involved in teacher-guided corpus searches for the 10 routines in COCA. This online corpus consists of more than 560 million words, in 2017, from five genres of spoken, fiction, popular magazines, newspapers, and academic journals. The expressions are presented in interactive texts, which make it possible to demonstrate the use of the targeted expressions in context. The routines were randomly divided into four categories and were taught in four treatment sessions. Table 2 shows the focus of each of the four lessons. In the first session, two routines were presented as it was predicted that familiarizing learners with the procedure would take some time. In session four, too, only two routines were taught because the instructor was requested to brief learners on the posttest they would take in the following week.

In both groups, each session began with giving learners cue cards for the routines that were to be covered in that session, the instructions for carrying out the searches, and a noticing activity for each routine. In what follows, an example of the noticing activity for one of the target expressions is presented.

Learners then started searching the target expressions one-by-one, as specified by the instructor. Figure 1 shows the search results for '*Make yourself at home*' in the COCA. As can be seen, in all examples, the expression '*Make yourself at home*' is highlighted, which serves as a kind of

input-enhancement for helping focus learners' attention on the target features (Eslami & Eslami-Rasekh, 2008).

Table 2

Lessons' Outline

Lesson	Expressions in Focus
(1)	(1) *Thanks for having me,* (2) *Go ahead*
(2)	3) *After you,* (4) *You have the wrong number,* (5) *you`ve mistaken me for someone else*
(3)	(6) *No problem/That`s Ok*, (7) *Sorry to hear that,* (8) *Make yourself at home*
(4)	(9) *Can I/we leave a message?,* (10) *Long time no see*

Corpus Search Guide for '*Make yourself at home'* (Lesson 3)

A. Search for '*Make yourself at home'* in the search box in COCA.
B. From the given list, open number 1, 3, and 10, and read them carefully.
C. Now answer the following questions:
a) In which contexts can we use this expression?
b) What is the expression used in Persian under similar circumstances?
c) In what ways is it similar or different from the English one?

Learners' search might have given rise to several corpora in which the target routines had been used. They were, however, asked to check only the first three cases for each routine and read them carefully. Learners in both treatment groups were then expected to do a noticing activity for each routine immediately after carrying out the guided searches. This helped them better recognize different contexts in which the expressions could be used. The noticing activities were the same for both treatment groups. When learners completed the noticing activities, the instructor discussed the expressions with the learners and summarized and emphasized the key points about each routine in both groups. Whenever necessary, the instructor referred to the Persian equivalents of the expressions and the likely similarities or differences. Learners' active participation in the discussions was encouraged by the teacher. The treatment for the input-based group continued likewise for each routine in the next two sessions.
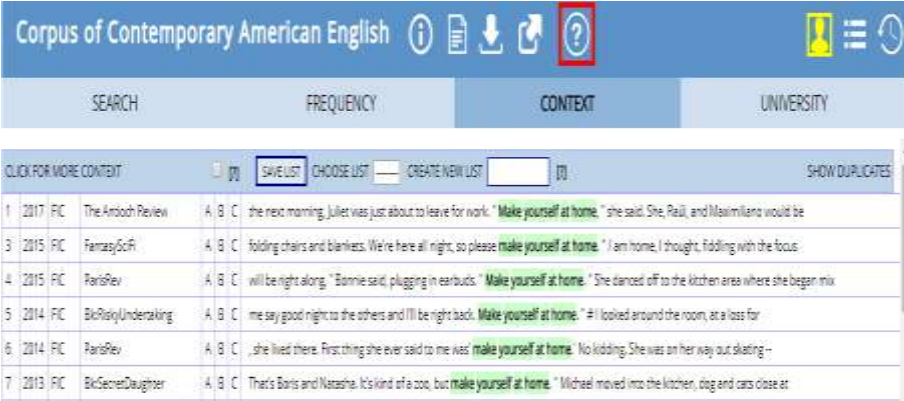
In the output-based group, however, after the corpus search and the instructor`s explanations, learners were engaged in production activities as well. The activities were designed in a way to provide the opportunity for the participants to produce the routines in a context with the instructor's guidance. To this end, after searching for all the routines and doing the

noticing activities, learners were given a set of 10 cards. They were required to read the situation on the card and to use a routine to fill in the blanks. The situations on the cards were taken from COCA, but were different from the three excerpts that learners had already read. Learners were required to write their answers on the other side of the card. At the end, the entire class was involved in a discussion of the answers given to each cue card. The instructor monitored and guided the discussions and helped with any possible misunderstandings or problems. The treatment in the output-based group followed the same procedure for two more sessions. Below is given a practice card for '*Make yourself at home*'.

Figure 1. The results of corpus search for '*Make yourself at home*' (Lesson 3)

Sample production cue card for "*Make yourself at home*'

> **Cue Card NO#8**
>
> Jack said to Peter "If I'm late, please don't wait for me? The guest cabin is yours", indicating the forward door. "Rest up and change. We'll meet for drinks in the dining car, say, eight? **...................................**, my friend.

A total of 60 minutes of instruction was planned each session in the input-based group. Approximately 40 minutes were used for searching the expressions in COCA and doing the noticing activities and 20 minutes for metapragmatic information. In the output-based group, an additional 30 minutes were allocated to oral production activities.

3.3. Instrumentation

The pretest and posttest were a WDCT consisting of 10 situations which were randomly arranged. Each situation was provided by a response, and participants were supposed to point out whether the provided utterance in response to a given situation was appropriate. In case they perceived the response to be inappropriate, they were to provide their own response. The responses provided to each situation on the test were selected based on the fossilization tendencies of the routines identified from learners' responses to the WDCTs in the descriptive study conducted before the current study. The items in the posttest were the same as those in the pretest but in different order. The test was pilot-tested with a group of advanced level learners who were similar to the main study participants in terms of their L1 background and age range. The participants were requested to underline any part which seemed ambiguous to them or included expressions they had difficulty understanding. The wording of some items was modified. Cronbach's alpha estimate of internal consistency for the test at this stage was .72. The following is an example of the test items:

Situation#11

You are at home watching TV. Your telephone rings. You pick up the receiver. A stranger on the phone says "Hello, may I talk to the bank manager?" What would you say?

To familiarize the participants with the test, they were provided with two examples with the pragmatic routines which were not part of the treatment. Learners took the post-test a week after the final session of instruction.

3.4. Data Collection

The main purpose of the present study was to explore the potential effectiveness of two corpus-based instructional approaches to the defossilization of 10 pragmatic routines which showed strong fossilization tendencies. Advanced learners who scored the lowest on the pragmatic routines WDCT and who were willing to take part in the experimental study were randomly assigned to two treatment groups: the input-based group and the output-based group. The study was conducted in four weeks. In the first and last weeks, the pretest and posttest were administered, respectively. Each treatment group received four sessions of instruction on the 10 pragmatic routines over two weeks, two sessions every week, with three days in between. In the first session, the instructor familiarized learners with corpus searches on COCA by searching one expression as an example. The classes met in a private English language teaching institute and learners carried out the searches on their cell phones, tablets, or laptops. The instruction was delivered by the second researcher. The posttest was administered a week after the final treatment sessions.

3.5. Data Analysis

To examine the effectiveness of instruction, the data obtained from the pre-tests and post-tests were analyzed by the researchers. If a participant identified the appropriateness of the routines correctly, he/she was given a score of one point. Incorrect identification of the appropriateness of the routines scored zero. As a result, the maximum comprehension score was 10. Since appropriate routines were provided for two scenarios, learners were supposed to produce the target routines in response to eight scenarios. It follows that a maximum possible score of 8 could be gained for the production of the routines. Inappropriate expressions and the expressions which were grammatically incorrect (e.g. *Thank for have me*) received a score of zero. Descriptive analysis for pretests and posttests was calculated. Paired-samples *t*-tests were run to see if there were statistically significant differences between fossilized advanced learners` ability to comprehend and use the fossilized pragmatic routines before and after the instruction. To find out which type of instruction was more effective in defossilizing the stabilized pragmatic errors, two Independent Samples *t*-tests were run.

4. Results and Discussion

4.1. Results

Table 3 presents descriptive analyses of the pre-test data for the two groups. As shown in the table, the mean scores of the input-enhancement and the output groups were 1.58 and 1.66 on the comprehension and 1.11 and 1.00 on the production sections, respectively.

Table 3
Descriptive Statistics for Pretest Comprehension and Production Scores in the Two Treatment Modes

	Treatment	Mean	Std. Deviation	N
Pretest Comprehension	Input	1.58	.61	17
	Output	1.66	.59	18
Pretest Production	Input	1.11	.60	17
	Output	1.00	.59	18

To ensure that the two experimental groups were not significantly different in their ability to comprehend and produce the target pragmatic routines before the treatment, two independent samples *t*-tests were run on the pre-test comprehension and production scores (see Table 4). The results showed no significant differences between the two groups in comprehension (t(33) = -.38, *p* = .70) and production (t(33) = .58, *p* = .56) sections of the test.

Table 4
Independent-samples T-tests for the Pretest Comprehension and Production Scores

		F	Sig.	t	df	Sig. (2-tailed)
Pretest Comprehension	Equal variances assumed	.17	.68	-.38	33	.70
	Equal variances not assumed			-.38	32.68	.70
Pretest Production	Equal variances assumed	.28	.59	.58	33	.56
	Equal variances not assumed			.58	32.84	.56

Table 5 presents descriptive analyses of the posttest data for the two groups. As shown in the table, the mean scores of the input-enhancement and the output groups were 8.94 and 9.16 on the comprehension and 6.05 and 7.72 on the production sections of the test.

Table 5
Descriptive Statistics for Posttest Comprehension and Production Scores in the Two Treatment Modes

	Treatment	Mean	Std. Deviation	N
PosttestComprehension	Input	8.94	1.02	17
	output	9.16	.92	18
Posttest Production	Input	6.05	1.78	17
	Output	7.72	.66	35

Subsequently, to answer the first research question, i.e. the effectiveness of the treatments on defossilizing learners` fossilized

competence of the 10 routines, two paired-sample *t*-tests were carried out (see Table 6). As can be seen from the table, participants' performances in both sections of the test, i.e. comprehension (t(33) = -36.77, *p* < .05) and production (t(33) = -3.69, *p* < .05), was significantly better on the posttest compared with the pretest. Thus, the pragmatic instruction seems to have exerted a positive influence on learners` ability to produce the targeted routines.

Table 6
Paired-Samples T-tests for the Comprehension and Production Scores of Pretest and Posttest

	Mean	t	df	Sig. (2-tailed)
Comprehension	-7.42	-36.77	34	.00
Production	-5.85	-20.17	34	.00

To answer the second and third research questions, i.e. to investigate whether there was a significant difference between the performance of the input-enhancement group and that of the output-based group as measured by the comprehension and production of the targeted routines, two independent-samples *t*-tests were run on the posttest scores. The treatment type, i.e. input-enhancement and output-based, was considered as the between-subject variable (see Table 7). As the table demonstrates, the results did not show any significant difference in the comprehension ability of the two groups (t(33) = -.68, *p* = .49). The results, however, were quite opposite for the production section of the test. The output-based group significantly outperformed the input-enhancement group (t(33) = -3.69, *p* < .05), showing the superiority of the output-based instruction over input-enhancement group in enhancing learners` ability to produce the targeted routines.

Table 7
Independent-Samples T-tests for the Posttest Comprehension and Production scores

		F	Sig.	t	df	Sig. (2-tailed)
Posttest Comprehension	Equal variances assumed	.06	.80	-.68	33	.49
	Equal variances not assumed			-.68	32.11	.50
Posttest Production	Equal variances assumed	17.17	.00	-3.69	33	.00
	Equal variances not assumed			-3.61	20.19	.00

4.2. Discussion

This study compared the effect of using corpus-driven input-based and output-based instruction on the defossilization of the pragmatic routines which exhibited a strong fossilization tendency among adult Iranian EFL learners. The results showed that the use of corpus-based treatments led to significant improvements in participants' comprehension and production of the pragmatic routines in both input-based and output-based instructional groups. The overall improvements in learners` ability to comprehend and use routines are consistent with the findings of previous research which have documented the effect of using corpus-based materials for the instruction of the routines (e.g. Bardovi-Harlig et al., 2015b; Bardovi-Harlig et al., 2017; Bardovi-Harlig & Vellenga, 2012; Simpson, Briggs, Ovens, & Swales, 2002). The effectiveness of using instructional materials based on naturally occurring language has been reiterated in several studies in instructional pragmatics in the past decade (e.g. Bardovi-Harlig et al., 2015a, 2015b; Bardovi-Harlig et al., 2017; Bardovi-Harlig & Vellenga, 2012; Flowerdew, 2015; Furniss, 2016; Gilmore, 2011). This type of input seems to lead to more positive learning outcomes and thus can serve as a good substitute for the rather decontextualized pragmatic input in L2 textbooks (Eisenchlas, 2011; Ishihara & Cohen, 2010; Jiang, 2006; Vellenga, 2004). In a 10-month study on the effectiveness of authentic materials and standard textbooks in facilitating the development of communicative competence including pragmatic competence, Gilmore (2011) concluded that learners who used authentic materials had better performance.

Moreover, the results showed that the observed differences between the comprehension scores of the two treatment groups were not statistically significant. Improvements in participants` comprehension ability can be ascribed to the noticing activities that participants did. This is in line with the noticing hypothesis suggesting that "what learners notice in input is what becomes intake for learning" (Schmidt, 1995, p. 20). In his review of studies on form-focused instruction, Ellis (2012) concluded that input-enhancement activities such as highlighting the target features assist the noticing and acquisition of the features. Besides, in this study, the noticing activities the learners were engaged in were based on a discovery-based approach. As noted by Vyatkina (2016a), discovery learning has a great potential for promoting noticing through exposing learners to several contextualized examples of the target feature (i.e. input enrichment) and by highlighting the target expressions (i.e. input-enhancement). In instructional pragmatics, discovery learning is seen crucial to noticing and pragmatic awareness (Bardovi-Harlig et al., 2015b; Tomlinson, 1994). It seems that the hands-on learning experience provided by discovery learning tends to boost learners' noticing of the target features.

By contrast, although both groups improved significantly in their ability to use the routines on the posttest, the results of between-group comparisons revealed that learners in the output-based instruction outperformed the learners in the input-enhancement group in the production of the appropriate routines. These results were to some extent predictable given that learners in the output-based instruction were engaged in tasks which required the production of the routines every session. Thus, they seemed to have more effectively learned how to use these expressions. This provides further evidence for Swain`s (1995, 1998, 2005) output hypothesis, which posits that output-based tasks require thinking about the form and function of the target feature which in turn leads to improvements in the future production of those features. These findings are in line with many studies which have shown that output-based tasks benefit different aspects of L2 acquisition (e.g. Suzuki & Itagaki, 2007; Tajeddin & Pezeshki, 2014). Tajeddin and Pezeshki (2014), for example, reported the positive effects of the output tasks on the comprehension and production of politeness markers, as opposed to input-enhancement tasks which improved learners` comprehension of (im)politeness of the sentences. In this study, however, the participants in the input-enhancement group improved significantly in both comprehension and production of the pragmatic routines, which can be in part due to the explicit instruction of the routines after corpus searches. This finding provides further support for Kupferberg`s (1999) study which showed that input-based activities, when coupled with explicit instruction, can result in improvements in learners' comprehension and production.

Overall, the findings of the study provide evidence for the effectiveness of pragmatic instruction to counteract the fossilization tendency of the routines. To the researchers' knowledge, few if any studies have to date investigated the defossilizaion of pragmatic features. Therefore, the findings cannot be compared with the past research in this regard. Ellis (1989), however, posited that formal instruction can facilitate the defossilization of grammatical features. Given that pragmatic routines can facilitate interactions by providing the leeway for the speakers to convey their intended illocutionary force and helping the interlocutors to understand the speaker`s intention (Bardovi-Harlig et al., 2017), the study of how best this aspects of pragmatic competence can be taught merits attention.

5. Conclusion and Implications

The results suggested that learners in both output-based and input-based groups benefited from the instruction of the pragmatic routines which had exhibited a tendency for fossilization. However, in line with several studies in L2 pragmatics research, the instructional tasks employed in this study seemed to have differential effects on different aspects of learners` pragmatic competence. While input enhancement tasks in the input-based

group resulted in increases in the learners' ability to notice the appropriate routines, they seemed to be less effective in bringing about similar results in their ability for the production of routines. By contrast, the results showed that the output-based tasks were more effective in enhancing learners` ability to identify and to produce appropriate routines. Moreover, the findings highlight the importance of the development of instructional materials that portray naturally occurring interaction in the target language.

The results of this study have implications for teaching pragmatic routines. The findings show that routines are teachable and pragmatic instruction should be integrated into EFL classrooms. This provides further evidence for the results of the previous studies which have shown that pragmatic knowledge does not progress hand in hand with grammatical competence in a foreign language context. Hence, teaching L2 pragmatic features is both necessary and effective given the limited opportunities that EFL students have to communicate with native speakers (Alcon Soler & Martinez-Flor, 2008). Teachers are, therefore, recommended to devise activities which help enhance learners` pragmatic competence. As revealed by the findings of this study, input-enhancement or output tasks can improve learners` comprehension or production of the routines. The pedagogical implication is that a combination of instructionally supported corpus-based materials and activities would be effective for enhancing EFL learners' ability to comprehend and use routines appropriately in context. The accessibility to free online corpora can provide resources for L2 teachers to develop instructional pragmatics tasks based on authentic language and, by so doing, compensate for the shortcomings of the L2 textbooks which usually lack relevant, contextualized input for the acquisition of pragmatics.

Future studies are certainly needed to investigate long-term influences of different instructional methods on the destabilization of pragmatic features which exhibit fossilization tendency. Besides, future research will also benefit from examining how some individual learner differences, including L2 pragmatic motivation, attention to L2 pragmatic features in the input, and attitudes toward the L2 culture, are likely to impact the effectiveness of instruction. It is also necessary to acknowledge the limitations of the study. The result presented here may not be generalizable beyond the learners participating in this study. Participants in this study were a select group. Clearly, future research with a larger and more representative data set is required to determine whether findings of the study are typical of Iranian EFL learners in general and to draw stronger conclusions. Also, the present study aimed to examine the effect of corpus-driven input-based and output-based instruction on defossilizing pragmatic routines among young adults, aged between 18-35. Replication of the study with learners from different age groups is needed to find out if the effect of instruction is similar across different age groups.

References

Alcon Soler E., & Martinez-Flor, A. (2008). Pragmatics in foreign language contexts. In E. Alcon Soler, & A. Martinez-Flor (Eds.), *Investigating pragmatics in foreign language learning, teaching and* testing (pp. 3-24). New York, NY: Multilingual Matters.

Bardovi-Harlig, K. (1999) Exploring the interlanguage of interlanguage pragmatics: A research agenda for acquisitional pragmatics. *Language Learning, 49*(4), 677-713.

Bardovi-Harlig, K. (2012) Pragmatics in SLA. In S. M Gass & A. Mackey (Eds.), *The Routledge handbook of second language acquisition* (pp. 147-162). London: Routledge.

Bardovi-Harlig, K., & Hartford, B. S. (1990). Congruence in native and nonnative conversations: Status balance in the academic advising session. *Language Learning, 40*(4), 467-501.

Bardovi-Harlig K., & Hartford, B. S. (1993). *Natural conversations, institutional talk, and interinterlanguage pragmatics*. Unpublished Manuscript. Bloomington: Indian University, Programs in Applied Linguistics.

Bardovi-Harlig, K., Mossman, S., & Su, Y. (2017). The effect of corpus-based instruction on pragmatic routines. *Language Learning & Technology, 21*(3), 76-103.

Bardovi-Harlig, K., Mossman, S., & Vellenga, H. E. (2015a). Developing corpus-based materials to teach pragmatic routines. *TESOL Journal*, *6*(3), 499-526.

Bardovi-Harlig, K., Mossman, S., & Vellenga, H. E. (2015b). The effect of instruction on pragmatic routines in academic discussion. *Language Teaching Research*, *19*(3), 324-350.

Bardovi-Harlig, K., & Vellenga, H. E. (2012). The effect of instruction on conventional expressions in L2 pragmatics. *System*, *40*(1), 77-89.

Brown, H. D. (2001). *Teaching by principles: An interactive approach to language pedagogy.* White Plains, NY: Longman.

Blum-Kulka, S., & Sheffer, H. (1993). The metapragmatic discourse of American-Israeli families at dinner. In G. Kasper & S. Blum-Kulka (Eds.), *Interlanguage pragmatics* (pp. 196-223). Oxford: Oxford University Press.

Boulton, A. (2012). Hands-on/hands-off: Varying approaches in data-driven learning. In J. Thomas & A. Boulton (Eds.), *Input, process, and product: Developments in teaching and language corpora* (pp. 152-168). Brno, Czech Republic: Masaryk University Press.

Cohen, A. D., & Ishihara, N. (2013). Pragmatics. In B. Tomlinson (Ed.), *Applied linguistics and materials development* (pp. 113-126). London, UK: Bloomsbury Academic.

Coulmas, F. (1981). Poison to your soul: Thanks and apologies contrastively viewed. In F. Coulmas (Ed.), *Conversational routines: Explorations in standardized communication situations and prepatterned speech* (pp. 69-91). The Hague, Netherlands: Mouton.

Eisenchlas, S. A. (2011). On-line interactions as a resource to raise pragmatic awareness. *Journal of Pragmatics*, *43*(1), 51-61.

Ellis, R. (1989). Are classroom and naturalistic acquisition the same? *Studies in Second Language Acquisition, 11*(3), 305-328.

Ellis, R. (2012). *Language teaching research and language pedagogy*. Malden, MA: Wiley-Blackwell.

Eslami-Rasekh, Z. (2005). Raising the pragmatic awareness of language learners. *ELT Journal*, *59*(3), 199-208.

Eslami, Z. R., & Eslami-Rasekh, A. (2008). Enhancing the pragmatic competence of non-native English-speaking teacher candidates (NNESTCs) in an EFL context. In E. Alcon Soler & A. Martinez-Flor (Eds.), *Investigating pragmatics in foreign language learning, teaching and* testing (pp. 178-197). New York, NY: Multilingual Matters.

Flowerdew, L. (2015). Data-driven learning and language learning theories: Whither the twain shall meet. In A. Leńko-Szymańska & A. Boulton (Eds.), *Multiple affordances of language corpora for data-driven learning* (pp. 15-36)*.* Amsterdam: John Benjamins.

Furniss, E. A. (2016). Teaching the pragmatics of Russian conversation using a corpus-referred website. *Language Learning & Technology*, *20*(2), 38-60.

Gilmore, A. (2011). "I prefer not text": Developing Japanese learners' communicative competence with authentic materials. *Language Learning*, *61*(3), 786-819.

Hall, T. (2009). The fossilization-formula interface. *Working Papers in TESOL and Applied Linguistics*, *9*(2), 62-64.

Han, Z. (2006). Fossilization: Can grammaticality judgment be a reliable source of evidence. In Z-H. Han & T. Odlin (Eds.), *Studies of fossilization in second language acquisition* (pp. 56-82). Clevedon: Multilingual Matters.

House, J. (1996). Developing pragmatic fluency in English as a foreign language: Routines and metapragmatic awareness. *Studies in Second Language Acquisition, 18*(2), 225-252.

House, J. (2009). Introduction: The pragmatics of English as a lingua franca. *Intercultural Pragmatics*, *6*(2), 141-145.

Ishihara, N., & Cohen, A. D. (2010). *Teaching and learning pragmatics: Where language and culture meet.* London: Longman.

Jakubowicz, C. (2002). Functional categories in (ab)normal language acquisition. In I. Lasser (Ed.), *The process of language acquisition* (pp. 165-202). Frankfurt am Main: Lang.

Jiang, X. (2006). Suggestions: What should ESL students know? *System*, *34*(1), 36-54.

Kasper, G., & Rose, K. R. (1999). Pragmatics and SLA. *Annual Review of Applied Linguistics, 19*, 81-104.

Kecskes, I. (2010). The paradox of communication: Socio-cognitive approach to pragmatics *Pragmatics and Society*, *1*(1), 50-73.

Kupferberg, I. (1999). The cognitive turn of contrastive analysis: empirical evidence. *Language Awareness, 8*(3), 210-222.

Lardiere, D. (1998). Case and tense in the 'fossilized'steady state. *Second Language Research*, *14*(1), 1-26.

Liu, J. (2006). Assessing EFL learners' interlanguage pragmatic knowledge: Implications for testers and teachers. *Reflections on English Language Teaching, 5*(1), 1-22.

Mukattash, L. (1986). Persistence of fossilization. *International Review of Applied Linguistics in Language Teaching, 14* (3), 187-203.

Pilcher, H. (2009). The functional and social reality of discourse variants in a northern English dialect: I DON'T KNOW and I DON'T THINK compared. *Intercultural Pragmatics, 6*(4), 561-596.

Roever, C., & Al-Gahtani, S. (2015). The development of ESL proficiency and pragmatic performance. *ELT Journal*, *69*(4), 395-404.

Romero Trillo, J. (2002). The pragmatic fossilization of discourse markers in non-native speakers of English. *Journal of Pragmatics, 34*(6), 769-784.

Schmidt, R. (1995). Consciousness and foreign language learning: A tutorial on the role of attention and awareness in learning. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning* (pp. 1-63). Honolulu: University of Hawai'i Second Language Teaching and Curriculum Center.

Selinker, L. (1972). Interlanguage. *IRAL, 10*(1-4), 209-232.

Selinker, L., & Lamendella, J. T. (1979). The role of extrinsic feedback in interlanguage fossilization: A discussion of rule fossilization: A tentative method. *Language Learning*, *29*(2), 363-376.

Simpson, R. C., Briggs, S. L., Ovens, J., & Swales, J. M. (2002). *The Michigan corpus of academic spoken English*. Ann Arbor, MI: The Regents of the University of Michigan. Retrieved from *http://quod.lib.umich.edu/m/micase/*

Skehan, P. (2002). Theorizing and updating aptitude. In P. Robinson (Ed.), *Individual differences and instructed language learning* (pp. 197-216). Philadelphia, PA: John Benjamins.

Sorace, A. (2005). Selective optionality in language development. In L. Cornips & K. P. Corrigan (Eds.), *Syntax and variation: Reconciling the biological and the social* (pp. 55-80). Amsterdam: John Benjamins.

Suzuki, W., & Itagaki, N.   (2007). Learner metalinguistic reflections following output oriented and reflective activities. *Language Awareness, 16*(2), 131-146.

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.), *Principles and practice in the study of language: Studies in honour of H. G. Widdowson* (pp. 125-144). Oxford: Oxford University Press.

Swain, M. (1998). Focus on form through conscious reflection. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 64-81). Cambridge: Cambridge University Press.

Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 471-483). Mahwah, NJ: Lawrence Erlbaum Associates.

Tajeddin, Z., Alemi, M., & Pashmforoosh, R. (2017). Acquisition of pragmatic routines by learners of L2 English: Investigating common errors and sources of pragmatic fossilization. *TESL-EJ, 21*(2), 1-21.

Tajeddin, Z., & Hosseinpur, R. (2014). The impact of deductive, inductive, and L1-based consciousness-raising tasks on EFL learners' acquisition of the request speech act. *Journal of Teaching Language Skills, 33*(1), 73-92.

Tajeddin, Z., & Pezeshki, M. (2014). Acquisition of politeness markers in an EFL context: Impact of input enhancement and output tasks. *RELC Journal*, *45*(3), 269-286.

Tomlinson, B. (1994). Pragmatic awareness activities. *Language Awareness*, *3*(3), 119-129.

Vellenga, H. E. (2004). Learning pragmatics from ESL and EFL Textbooks: How likely? *TESL-EJ*, *8*(2), 1-18.

Vigil, N., & Oller, J. W. (1976). Rule fossilization: A tentative model. *Language Learning, 26*(2), 281-297.

Vyatkina, N. (2016a). Data-driven learning for beginners: The case of German verb-preposition collocations. *ReCALL*, *28*(3), 207-226.

Vyatkina, N. (2016b). Data-driven learning of collocations: Learner performance, proficiency, and perceptions. *Language Learning & Technology*, *20*(3), 159-179.

Washburn, G. (1994). Working in the ZPD: Fossilized and nonfossilized nonnative speakers. In J. Lantolf & A. Gabriela (Eds.), *Vygotskian approaches to second language research* (pp. 69-81). Norwood, NJ: Ablex.

Williams, M. (1988). Language taught for meetings and language used for meetings: Is there anything in common? *Applied Linguistics*, *9*(1), 45-58.

Woodfield, H. P. (2008). Problematising discourse completion tasks: Voices from verbal report. *Evaluation and Research in Education, 21*(1), 43-69.