Effect of prosody awareness training on the quality of consecutive interpreting between English and Farsi

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Chapter ten

Prosody training for interpreters: Does methodology matter?

Abstract

This study investigates the effect of explicit vs. implicit prosody teaching on the quality of consecutive interpretation by Farsi-English interpreter trainees. Three groups of student interpreters were formed. All were native speakers of Farsi who studied English translation and interpreting at the BA level at the University of Applied Sciences, Tehran, Iran. Participants were assigned to groups at random, but with equal division between genders (6 female and 6 male students in each group). No significant differences in English language skills (TOEFL scores) could be established between the groups. Participants took a pre-test of consecutive interpreting before starting the program. The control group listened to authentic audio tracks and did exercises in consecutive interpreting. The first experimental group received explicit instruction of English prosody and did exercises based on the theoretical explanation which was provided by their Iranian instructor. The second experimental group received implicit instruction of English prosody through the use of recasts. The total instruction time was the same for all the groups, i.e., 10 hours. Students then took a post-test in consecutive interpretation. The results showed that explicit teaching of prosody had a significantly positive effect on the overall quality of interpreting from Farsi into English compared with that of implicit prosody instruction. These results have pedagogical implications for curriculum designers, interpreter training programs, material producers and all who are involved in language study and pedagogy.

Keywords: Consecutive interpreting, explicit teaching, implicit teaching, prosody instruction.

10.1   Introduction[1]

Explicit learning is an intentional process requires learners to determine what will be learned such that the learners can express the acquired knowledge structure (Kemper 2008). Implicit learning, on the other hand, refers to incidentally learning the structure of stimuli in the learner's environment, so that it is generally hard for the learner to express what exactly this knowledge structure is (Cleeremans 1993, Berry 1997). Kemper (2008) states that the effectiveness of explicit and implicit instruction is determined by both the type of the learner and the rule that has to be learned.

Research shows that correct prosody (intonation, rhythm, and stress) is important for successful EFL (English as a Foreign Language) pronunciation (Gut & Pillai 2014;, Kang 2010, Xue & Lee 2014, Pickering 2004, Yoon 2014, Yenkimaleki & Van Heuven 2016a, b, c, d). Gut and Pillia (2014) predict that second-language learners will face problems in producing prosodic focus marking when their first language is different from the second language in the way it signals focus.

By considering the important role of explicit teaching of prosody in second language acquisition, there are very few studies which have focused on the contribution of explicit prosody instruction in EFL contexts (Jang & Lee 2015). However, there are some studies which indicate the importance of segmentals over suprasegmentals (e.g., Flege et al. 1995). Flege et al. (1995) found that Italian EFL learners produced accurate vowels and consonants (segments) more than accurate prosody. Jilka (2007), writing on the difficulty associated with the teaching of prosody, points out that establishing comprehensive and universal rules and guidelines for speech production (including prosody) is difficult. It is easier to design rules that target the segmental pronunciation and prosodic problems that are specific to the specific combination of native and foreign language at issue. Jilka also says that nature of prosodic features is inherently complicated and because of the complexity of prosodic feature errors, no specific teaching methodology deals with them appropriately. Moreover, most of the teaching methods focus on segmental aspects of the second language learner's pronunciation problems (reported in Yenkimaleki 2016a, b). Ahrens (2004: 10) states that, in order to solve some of the problems of instructors in prosodic feature awareness, technology should be called upon to solve the problems associated with this aspect. She claims that through computer-aided analysis of voice characteristics and prosody we can get more information on the relationship of prosodic domains. She maintains that computer-aided analysis of voice characteristics is helpful in its present state but there should be more cooperation with experts in voice and signal processing. Hirschfeld and Trouvain (2007), discussing the current methodology in teaching prosody, suggest that suitable methods for prosody teaching be developed for second language learners. It demands the development of software that automatically recognizes segmental phonetic and prosodic deviations fro the native norm, presents exercises in training programs and assesses the mastery of prosodic features for second language learners. Moreover, they

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[1] This chapter is identical to Yenkimaleki, M. & Heuven, V. J. van (2016). Prosody instruction for interpreter trainees: Does methodology make a difference? An experimental study. *Proceedings of the 8th International Conference on Psychology Language and Teaching (ICPLT), 19−20 December 2016, Dubai. PEOPLE, International Journal of Social Sciences*, 19 (submitted).

state that systematic training awareness of prosodic features results in higher degree of intelligibility in the foreign language, which was illustrated by teaching practice in different academic settings.

Generally, the teaching of pronunciation in EFL settings is looked upon as a luxury and has received little attention (e.g., Goodwin et al. 1994). In the pre-reform movement era in foreign-language teaching methodology, pronunciation had either a reputation as a subject language teachers tended to avoid (Fraser 2006, Macdonald 2002) or it was instructed implicitly depending on the learner's capability of imitating sounds and rhythms without any explicit instruction – i.e., an intuitive-imitative approach of teaching pronunciation (Celce-Murcia et al. 1996). A number of scholars paid attention to this issue in EFL contexts by investigating the explicit teaching of phonological rules (e.g., Murakawa 1981, De Bot & Mailfert 1982, Leather 1990, Champagne-Muzar et al. 1993, Pennington 1998, Ahren 2004, Derwing & Munro 2005, Venkatagiri & Levis 2007, Foote et al. 2011, Derwing et al. 2012, Robinson et al. 2012, Yenkimaleki & Van Heuven 2013, 2016a, b, c, d, Suwartono 2014, Koike 2014, Yenkimaleki 2016). Some studies report a positive effect of implicit teaching of pronunciation rules. For instance, Papachristou (2011) ran an experimental study investigating the effectiveness of pronunciation teaching of English to Greek state school students aged 16 years old, examining the production of English vowels. The implicit form of pronunciation instruction resulted in more native-like production of vowels.

Therefore, prosody teaching should be included in the interpreter training curriculum. But in order to see which methodology of instruction (implicit vs. explicit) works better in training interpreters, this issue needs to be studied systematically. The results will shed more light on the optimally effective choice of methodology for instructors and practitioners in teaching prosodic features for interpreter trainees.

Concretely we asked the following research question: *Does an explicit method of prosody instruction enhance the quality of consecutive interpreting performance for student interpreter trainees more than implicit instruction?*

At this stage we prefer not to suggest specific hypotheses as to which of these methodologies will be more effective. This will depend on the working languages in different countries, the expectations the students have about the effective methodology of prosody instruction and the proficiency of instructors in implementing the methodological rules in teaching prosodic features. In this exploratory study we will address the question on the basis of an experiment in which student-interpreters with Farsi as the native language and English as the second working language were trained with explicit, implicit or no special attention for prosodic differences between the working languages. Students were trained and tested in recto interpreting, i.e., from the foreign language (English) into their native language (i.e., Farsi). This direction of the interpreting process was targeted since earlier research has shown that the benefits gained by prosody awareness training are easier found for straight (*recto*) interpreting than for inverse (*verso*) interpreting (see Chapter 9).

10.2   Method

10.2.1   Participants

Thirty-six students of translation and interpreting between Farsi and English were chosen randomly from 100 senior students at the University of Applied Sciences, Tehran, Iran. They were randomly divided into three groups of twelve students that each incorporated six male and six female students. The participants were native speakers of Farsi with an age range of 18-27 years. They participated in all sessions of the training program.

10.2.2   Procedure

The participants were divided into one control group and two experimental groups through the application of systematic random sampling. The control group received routine exercises, asking them to listen to authentic audio tracks in Farsi and then interpret these into English. The first experimental group spent less time on these tasks and instead received explicit prosodic feature awareness instruction for 20 minutes during each session. The second experimental group also spent less time on inter-pretation tasks and instead received implicit prosodic instruction for 20 minutes during each session.

At the beginning of the program all the participants took a pre-test of general English proficiency. The test battery was the standard Longman's TOEFL English proficiency test, with separate modules testing the learner's (i) Listening comprehension, (ii) Reading comprehension and (iii) Structure and writing skills. The participants took part in the program for ten sessions (one hour per session) in five weeks, i.e., ten hours in all. Then, the control group and experimental groups took a pre-test on consecutive interpretation so that their level of expertise in interpreting could be assessed before they received any type of training.

The control group listened to 400 minutes of authentic audio tracks and did exercises in consecutive interpreting. Moreover, both the control group and the experimental groups listened during 200 minutes to the Iranian instructor who explained how to do exercises and also provided feedback on the students' consecutive interpreting per-formance. Both experimental groups altogether listened for 200 minutes to authentic audio tracks and did exercises in consecutive interpreting according the contents of the audio tracks. The first experimental group received 200 minutes of explicit instruction of English prosody and did the exercises based on the theoretical explanation which was provided by their Iranian instructor (for details, see Chapter 3, Appendix 3.2, pp. 50−86). The second experimental group received 200 minutes of implicit instruction in English prosody through authentic audio tracks and did the exercises based on the tasks. This group received instruction of prosodic features implicitly through the use of "recasts", i.e., reformulating the learner's immediately preceding erroneous utterance while maintaining his or her intended meaning (for details see Ammar & Spada 2006). The activities covered by the three participant groups and the time (in minutes) spent on them are summarized in Table 10.1.

Table 10.1. Summary of activities and time spent (minutes) by three groups of participants in the experiment.

Activity	Group		
	Control	Explicit	Implicit
Audio tracks/exercises in interpretation	400	200	200
Listening to instructor for feedbacks	200	200	200
Explicit prosody instruction		200	
Implicit prosody instruction			200
Total time spent	600	600	600

In all the sessions, at different times, formative tests were administered to the participants in order to measure their progress and to diagnose problems on the part of the participants. Then, the control group and experimental groups took a post-test on consecutive interpretation so that the effect of treatment could be assessed. Both pre-test and post-test were composed of three 30-seconds audio extracts (BBC World Service, for details see Chapter 3, for examples see Appendix 3.1) that the participants were supposed to listen to and interpreted into Farsi after a one-minute interval. Three raters, who were native speakers of Farsi and lecturers in the Translation and Interpreting Department at the University of Applied Sciences, evaluated the participants' interpreting performance. The participants' performance was scored based on the criteria adapted from Sawyer (2004). These criteria were elaborated in Chapter 3 (§ 3.5.2). They are:

Table 10.2. Eight evaluation criteria subdivided into three domains used in the quality judgment of interpreting performance. Weights add up to 100. After Sawyer (2004).

Meaning		**Language use**		**Presentation**	
Accuracy	20	Grammar	10	Pace	10
Omissions	15	Expression	10	Accentuation	10
Additions	15	Terminology	10		

10.3 Results

At the beginning of the program all the participants took a pre-test of general English proficiency so that we can see whether the participants form a homogeneous group not. The test battery was the standard Longman's TOEFL English proficiency test, with separate modules testing the learner's (i) Listening comprehension, (ii) Reading comprehension and (iii) Structure and writing skills. Table 10.3 shows the participants' TOEFL scores.

Oneway analyses of variance were run for the three TOEFL component scores separately as well as for the overall (i.e., mean) TOEFL score with group (control, implicit, explicit) as a fixed factor. The very small differences in the scores were never

statistically significant for any of the four dependent variables, $F(2, 33) < 1$ in all cases. We conclude that there were no differences between the three groups in terms of proficiency in English prior to the experiment.

Table 10.3. Raw component and overall (mean) scores on TOEFL proficiency test obtained by control and experimental (implicit instruction; explicit instruction) groups. Within each group subjects are listed in descending order of the overall TOEFL score.

| | | Control group | | | | | | Experimental groups | | | | | | | | |
| | | | | | | | | Implicit instruction | | | | | Explicit instruction | | | |
ID	Gender	List. Comp	Struct.& writing	Read. Comp	Overall TOEFL	ID	Gender	List. Comp	Struct.& writing	Read. Comp	Overall TOEFL	ID	Gender	List. Comp	Struct.& writing	Read. Comp	Overall TOEFL
C01	M	66	67	66	66.3	I01	M	68	65	65	66.0	E01	F	67	65	65	65.6
C02	F	65	63	65	64.3	I02	M	66	65	63	64.6	E02	M	66	63	61	63.3
C03	M	62	61	66	63.0	I03	F	65	63	63	63.6	E03	M	63	61	61	61.6
C04	M	61	61	59	60.3	I04	M	62	60	61	61.0	E04	F	60	58	63	60.3
C05	F	61	58	57	58.6	I05	F	60	59	60	59.6	E05	M	59	60	59	59.3
C06	F	57	56	57	56.6	I06	F	57	58	56	57.0	E06	M	58	57	59	58.0
C07	F	54	55	56	55.0	I07	M	55	60	53	56.0	E07	F	56	57	58	57.0
C08	M	53	54	52	53.0	I08	F	52	56	53	53.6	E08	F	53	56	54	54.3
C09	F	51	52	50	51.0	I09	F	50	53	47	50.0	E09	F	52	54	51	52.3
C10	F	50	51	49	50.0	I10	M	49	51	47	49.0	E10	F	50	49	50	49.6
C11	M	49	52	48	49.6	I11	M	48	50	46	48.0	E11	M	49	48	47	48.0
C12	M	48	51	47	48.6	I12	F	47	46	44	45.6	E12	M	46	47	45	46.0
Mean		56.4	56.7	56.0	56.5	Mean		56.5	57.1	54.8	56.2	Mean		56.5	56.2	56.0	56.3
SD		6.4	5.2	6.9	6.1	SD		7.5	6.1	7.5	7.0	SD		6.7	5.8	6.5	6.3

The three expert raters were in excellent agreement in their judgments of the interpreting performance of the 36 participants in the pre-test. Cronbach's alpha computed on the overall scores given by the raters was as high as .969, while the coefficient never dropped below .935 when one rater was left out. On the strength of this finding all further analyses of the pre-test scores were done on the ratings after averaging over the three experts.

Table 10.4 shows the scores obtained by the interpreter trainees on the pre-test. These scores are the sum of the rating components as defined in Table 10.2. The scores range theoretically between 0 and 100. The individual trainees' score range between 65 and 93. The differences in scores on the pre-test between three groups are very small, as

they were in the TOEFL proficiency test. The TOEFL scores are very strongly correl-
ated with the judged quality of the interpreting performance for each of the three
groups of participants, with $r = .944$ for the control group, .969 for the implicit
instruction group and .997 for the explicit instruction group ($N = 12$, $p < .001$ in all
three cases). The correlation across all 36 participants was $r = .963$ ($p < .001$). Given
this high correlation we decided to evaluate the statistical significance of the differences
in pre-test scores between the three participant groups by a repeated measures oneway
analysis of variance (RM-ANOVA) with participants matched on the basis of the
TOEFL scores. Degrees of freedom were Huyhn-Feldt corrected (not shown here)
whenever the assumption of sphericity was violated. The RM-ANOVA revealed a
significant effect of group, $F(2, 22) = 3.8$ ($p = .038$, $p\eta^2 = .257$). Post-hoc analysis for
contrasts ($\alpha = .05$, with Bonferroni correction for multiple testing) indicated that only
the difference between the control group (81.9) and the implicit-instruction group
(80.7) was significant. This should not be a problem for the experiment, however. If the
intervention (implicit or explicit prosody instruction) should be beneficial, we expect
the experimental groups to outperform the control group in the post-test.

*Table 10.4. Overall quality rating of interpreting performance in the pre-test (on a scale between 0 and
100). Ratings are listed for each judge separately as well as averaged over judges, for participants in
control group and two experimental groups. Within each group subjects are listed in descending order of
the overall TOEFL score (see Table 10.2).*

| Control group | | | | Experimental groups | | | | | | | | | |
| | | | | Implicit instruction | | | | | Explicit instruction | | | | |
ID	Rater 1	Rater 2	Rater 3	Mean	ID	Rater 1	Rater 2	Rater 3	Mean	ID	Rater 1	Rater 2	Rater 3	Mean
C01	91	90	94	91.6	I01	89	90	93	90.6	E01	92	91	95	92.6
C02	89	88	90	89.0	I02	90	88	90	89.3	E02	89	92	90	90.3
C03	88	87	91	88.6	I03	88	87	90	88.3	E03	89	90	89	89.3
C04	86	90	90	88.6	I04	85	86	86	85.6	E04	89	90	84	87.6
C05	84	89	90	87.6	I05	84	87	80	83.6	E05	88	89	81	86.0
C06	83	80	87	83.3	I06	83	84	79	82.0	E06	82	87	80	83.0
C07	82	80	86	82.6	I07	83	81	76	80.0	E07	80	84	79	81.0
C08	80	79	81	80.0	I08	81	80	77	79.3	E08	79	80	74	77.6
C09	79	77	78	78.0	I09	78	74	76	79.0	E09	76	79	70	75.0
C10	75	74	73	74.0	I10	75	72	74	73.6	E10	73	76	70	73.0
C11	72	70	70	70.6	I11	70	69	70	69.6	E11	70	69	69	69.3
C12	70	68	67	68.3	I12	68	68	65	67.0	E12	65	63	67	65.0
Mean	81.5	81.0	83.0	81.8	Mean	81.1	80.5	79.6	80.6	Mean	81.0	82.5	79.0	80.8
SD	6.6	7.8	9.1	7.7	SD	7.1	7.8	8.5	7.5	SD	8.7	9.3	9.2	8.8

At the end of the training program, a post-test of interpreting was run to assess the effect of the treatment. We aimed to make the pre-test and post-test equally difficult but with different fragments and items. The raters and procedures were the same as in the pre-test.[2] The results of the post-test ratings for control group and experimental groups are presented in Table 10.5.

Table 10.5. Post-test scores. For more information see Table 10.4.

| Control group | | | | Experimental groups | | | | | | | | | |
| | | | | Implicit instruction | | | | | Explicit instruction | | | | |
ID	Rater 1	Rater 2	Rater 3	Mean	ID	Rater 1	Rater 2	Rater 3	Mean	ID	Rater 1	Rater 2	Rater 3	Mean
C01	89	88	90	89.0	I01	90	92	94	92.0	E01	96	97	96	96.3
C02	88	87	90	88.3	I02	90	89	92	90.3	E02	95	94	93	94.0
C03	87	89	88	88.0	I03	89	89	91	89.6	E03	93	92	91	92.0
C04	86	89	88	87.6	I04	87	86	87	86.6	E04	92	91	90	91.0
C05	86	89	90	88.3	I05	85	88	82	85.0	E05	90	91	89	90.0
C06	84	81	88	84.3	I06	84	85	80	83.0	E06	91	88	87	88.6
C07	83	81	84	82.6	I07	84	83	79	82.0	E07	88	87	85	86.6
C08	81	80	82	81.0	I08	80	81	89	83.3	E08	84	86	83	84.3
C09	80	78	78	78.6	I09	80	77	79	78.6	E09	82	84	82	82.6
C10	75	73	73	73.6	I10	73	70	75	72.6	E10	80	80	81	80.3
C11	72	71	71	71.3	I11	71	70	71	70.6	E11	78	76	75	76.3
C12	70	64	65	66.3	I12	71	69	68	69.3	E12	73	71	70	71.3
Mean	81.7	80.8	82.2	81.5	Mean	82.0	81.5	82.2	81.9	Mean	86.8	86.4	85.1	86.1
SD	6.3	8.2	8.5	7.6	SD	7.0	8.2	8.4	7.6	SD	7.3	7.6	7.5	7.4

The overall scores obtained in the post-test were roughly the same as those obtained in the pre-test for the control group as well as for the experimental group with implicit instruction. In fact, the score obtained by the control group had dropped .3 of a point, while the implicit-instruction group had gained 1.2 points. The second experimental group, with explicit instruction of prosody, obtained a score of 86.1 points, which is a considerable (5.3 points) improvement vis-à-vis the pre-test. The effect of group on the post-test scores was statistically significant by the same type of RM-ANOVA as was used in the pre-test, $F(2, 22) = 47.8$ ($p < .001$, $p\eta^2 = .813$). Post-hoc analyses revealed, however, that the difference between the control group and the implicit-instruction

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[2] In fact, the speech fragments produced in the pre-test and the post-test were rated in one large session. One rater (the present author) knew the students; the other two raters did not. For more information on the rating procedure see § 8.4.1.

group was not significant but that the explicit-instruction group differed from the other groups.

We assume that, in spite of our precautions to make the pre-test and the post-test equally difficult, the post-test has turned out to be somewhat more difficult. It would be hard to imagine that 600 hours of practice and feedback with interpreting tasks would not yield any positive results for the control group. It is therefore probably better to depart from the assumption of equal pre-test and post-test, and evaluate the effect of the intervention (implicit or explicit instruction) by adopting the gain, i.e., the difference between the post-test and the pre-test score obtained by the same individual, as the optimal dependent variable. The gain values are listed in Table 10.6.

An RM-ANOVA on the gain-scores reveals a highly significant effect of participant group, $F(2, 22) = 55.9$ ($p \ll .001$, $p\eta^2 = .836$). Moreover, post-hoc analyses show that the differences in gain between all tree groups of participants are significant. The explicit-instruction group (+5.3) outperformed the implicit-instruction group (+1.3), which in turn gained significantly more by the treatment than the control group (−0.3).

Table 10.6. Gain (difference between post-test and pre-test scores) for three groups of participants. For more information see Table 10.4.

Participant group					
Control		Implicit instruction		Explicit instruction	
ID	Gain	ID	Gain	ID	Gain
C01	−2.6	I01	1.4	E01	3.7
C02	−0.7	I02	1.0	E02	3.7
C03	−0.6	I03	1.3	E03	2.7
C04	−1.0	I04	1.0	E04	3.4
C05	0.7	I05	1.4	E05	4.0
C06	1.0	I06	1.0	E06	5.6
C07	0.0	I07	2.0	E07	5.6
C08	1.0	I08	4.0	E08	6.7
C09	0.6	I09	−0.4	E09	7.6
C10	−0.4	I10	−1.0	E10	7.3
C11	0.7	I11	1.0	E11	7.0
C12	−2.0	I12	2.3	E12	6.3
Mean	−0.28	Mean	1.25	Mean	5.30
SD	1.18	SD	1.25	SD	1.72

Figure 1A-B-C shows how the TOEFL scores, which were used as the matching criterion, and the group membership together determine the participant's interpreting performance.
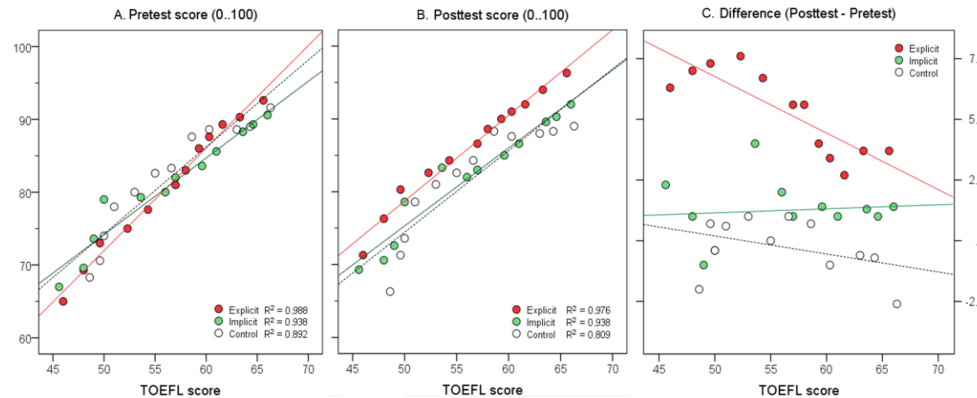
Figure 10.1. Pre-test score (A), post-test score (B) and Gain (difference between post-test and pr-etest score, C) plotted as a function of the individual interpreter trainee's TOEFL score prior to the experiment, broken down by three groups of participants.

as established just before the experiment started. It also shows that there is no difference in scatter between the participant groups. In panel B the strong correlation between TOEFL score and post-test performance has hardly changed but at the same time is obvious that the group that received explicit instruction on prosody has better scores overall. Panel C shows that all three participant groups differ from one another when the trainees' performance is expressed in terms of gain between pre-test and post-test. The improvement in interpreting quality is largest for the experimental group with explicit instruction, intermediate for the implicitly instructed group, and no gain is seen for the control group. Moreover, we point out that explicit instruction in the use of prosody affects the trainees differentially. There is a significant but inverse correlation ($r = -.848$, $N = 12$, $p < .001$) between an individual's TOEFL score and the size of the benefit gained by the treatment: the poorer (in terms of the TOEFL proficiency score) the students at the start of the experiment, the more they benefit by the explicit instruction. No such inverse relationship is observed for the other two groups.

As a final exercise, we computed the gain obtained between pre-test and post-test for each of the eight rating scales separately. Since the training of the experimental groups was focused on prosody, we would expect those rating scales evaluating prosodic aspects of the interpreters' performance to improve more than other aspects – relative to the control group. Figure 10.2 plots the gain for each of the eight scales for the three participant groups separately. Table 10.7 is a summary of the RM-ANOVAs which were run to test the effect of participant group on each of the eight rating scales separately. Braces in Figure 10.2 include participant groups that do not differ significantly from each other by post-hoc analyses (with Bonferroni correction for multiple comparisons, $\alpha = .05$).

Table 10.7 shows that the effects of participant group are fairly small, or absent, for most rating scales, with the exception of three. The two scales that pertain to prosody

prove highly sensitive to the group effect, with large percentages of the variance in the judgments accounted for ($p\eta^2 > .750$). The largest effect is obtained for judged optimality of pace (i.e., fluency of interpreting). All three groups differ from each other such that the explicit-instruction group E gains more than the implicit instruction group I, which in turn gains more than the control group C. The second-largest effect of group is observed for the accentuation scale, where E outperforms I and C, which do not differ significantly from each other.
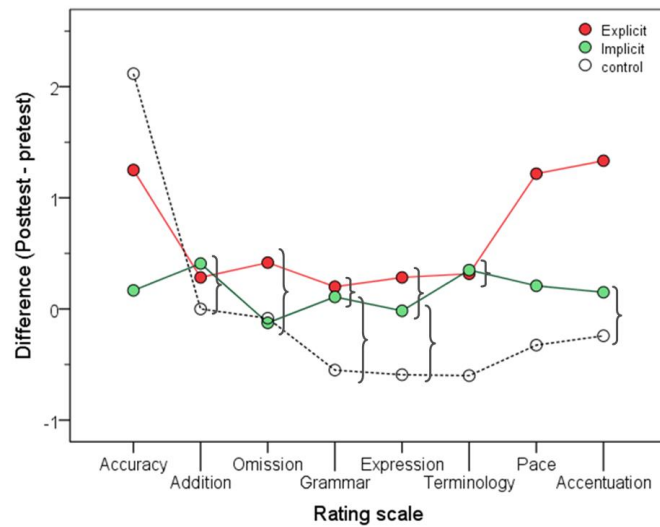
Figure 10.2. Gain (difference between post-test and pre-test) for each of eight rating scales, broken down by participant group. Maximum difference is 10 points, except for Accuracy (20 points), Omissions (15 points) and Additions (15 points). Braces include group levels which do not differ significantly for the scale at issue by a Bonferroni test.

Interestingly, the effect of participant group is reversed for the Accuracy scale. Here we find that C > E > I. This finding suggests that focusing on prosody (whether by implicit or by explicit instruction) diverts the interpreter's attention away from accuracy. When the training program does not specifically draw the students' attention to prosodic aspects of the interpreting task, the traditional method would appear to impress on the students that accuracy in interpreting is the most important aspect to attend to – which is, in fact, made explicit by the recommendation to weight this scale more heavily than any other rating scale in the judgment procedure.

Table 10.7. Summary of RM-ANOVA on each of eight rating scales with participant group as the factor. P-values are based on Huyhn-Feldt corrected degrees of freedom (not indicated in the table).

Rating scale	F	p	$p\eta^2$
Accuracy	28.5	< .001	.722
Omissions	1.6	.224	.127
Additions	1.5	.239	.122
Grammar	5.5	.011	.334
Expression	6.1	.008	.356
Terminology	13.3	< .001	.547
Pace	35.0	< .001	.761
Accentuation	34.1	< .001	.756

10.4   Conclusion

This study investigated the effect of explicit vs. implicit prosody teaching on the quality of consecutive interpreting by Farsi-English interpreter trainees. The results showed that the teaching of prosody had a significantly positive effect on the overall quality of interpreting even when the time spent on prosody training could not be devoted to the traditional interpreting practice. The results also revealed that explicit instruction in the use of prosody leads to a greater improvement of interpreting quality than implicit instruction, and that the gain yielded by explicit instruction was especially beneficial as the trainee was less proficient in English at the start of the training program. Moreover, the results showed that the effect of explicit prosody teaching was especially strong as far as the interpreter's use of accentuation is concerned, i.e., on the scale that should be most sensitive to the intervention.

The results of this study converge with Yenkimaleki and Van Heuven (2016a, b, c, d), who argued that the explicit teaching of prosodic features should improve interpreter trainees' speech perception and production, which in turn should result in better per-formance in interpreting tasks. The results of this study are also in line with Fullana (2006), who stated that second-language learners cannot achieve native-like pronunci-ation without the help of explicit instruction. However, there are some studies which hold that implicit teaching of strategy instruction would help students reinforce their awareness of the language rules and would impact more strongly on students' develop-ing pronunciation skills than explicit instruction (e.g., Griffiths 2003, Papachristou 2011). In light of such conflicting experimental results this issue demands more invest-igations with other learners and different combinations of source and target languages.

The pedagogical implications of this study would pertain to interpreting programs all over the world. Policy makers, curriculum developers, practitioners, and administrators need to make a number of changes in their overall approach in methodology choice in teaching prosody at interpreter training programs. Producers of teaching materials for interpreter training programs should be in contact with researchers in the field of phonetics, take publications of phonetics into consideration and include methodolog-ical issues of prosody teaching in the textbooks for interpreting programs.

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