Journal of Applied Linguistics and Language Research
Volume 2, Issue 2, 2015, pp. 122-130
Available online at www.jallr.ir
ISSN: 2376-760X

The Effect of Right-ear Advantage on Iranian Translation Students' Simultaneous Interpretation Quality

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Abstract
Since in simultaneous interpretation the act of comprehension and production occur at the same time, it is one of the most difficult aspects of translation studies. In order to improve this important aspect of translation studies this study sought to examine the effect of the right ear advantage on the interpretation quality in a simultaneous interpretation situation. Nine Iranian English translation students chosen based on purposive sampling, from two universities in Iran participated in this study. The participants were asked to listen to two tapes through earphones, one of the tapes with the right ear and the other one with the left ear and to translate them like a simultaneous interpreter. Using Carroll (1965) interpretation quality model, students' interpretations were analyzed. The results of the study revealed that students who used right ear had more acceptable interpretation than those who used their left ear in a simultaneous interpretation.
Keywords: dichotic listening test; right-ear advantage; simultaneous interpretation

INTRODUCTION

Some studies have inspected use of headphones in simultaneous interpretations. Some research have proven that simultaneous translators like to release one of the ears when using headsets in order to monitor their output better. For example, Lawson (1967) conducted a research which proved use of one ear versus the other among interpreters. Another study was conducted by Parson (1975), in this study eighty percent of participants said they normally kept an earphone off one ear, either partially or completely.

Since some simultaneous interpreters usually keep an earphone off or in fact use one of their ears at the time of interpretation, this study tries to inspect effect of right ear use on interpretations quality. In order to explain why we are going to inspect the effect of right ear use on students' interpretation quality here in we elaborate four important points.

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First, lateralization; it says language affairs like, production and interpretation or comprehension of language occur in the left hemisphere of the brain (Yule, 2006, p.139). For example in the 1860s Paul Broca a French surgeon, reported that damage to this specific Part of the brain (left hemisphere) was related to extreme difficulty in producing speech. It was noted that damage to the corresponding area on the right hemisphere had no such effect. This finding was used to argue that language ability must be located in the left hemisphere and since then has been treated as an indication that this area is crucially involved in production of the speech (Yule, 2006, p.139; Springer & Deutsch, 1997). In another case, Carl Wernicke who was a German doctor, in the 1870s, reported that damage to left part of the brain was found among patients who had speech comprehension difficulties. This finding confirmed the left hemisphere responsibility of the language ability and led to the view that left hemisphere is the part of the brain involved in language abilities. So from above mentioned definitions we come to this conclusion that the responsibility of understanding and producing speech lies with left hemisphere, needless to say that these two factors are the most needed requirements for a good interpreter.

Second, contralateral brain function; some other researches have also demonstrated that anything experienced on the right-hand side of the body is processed in the left hemisphere, it means that left part of brain is also responsible for controlling activities of right part of body, and anything on the left side of body is processed in the right hemisphere; it means that right part of brain is responsible for controlling activities of left part of body (Pierson, Bradshaw & Nettelton, 1983). These findings are also illustrated in Flaherty's (2004) that a stroke in the right hemisphere resulted in paralysis of the left leg. So a basic assumption would be that a signal coming in the right ear will go to the left hemisphere and a signal coming in left ear will go to the right hemisphere. So from above information we can infer that words are heard sooner when heard by right ear. It is because brain processes the words that are heard from right ear in just one stage performance but the words that are heard from left ear in a two stage performance; Based on point 2 or contralateral brain function the words that are heard from left ear first go to right hemisphere but based on point 1 or lateralization and since right hemisphere is not responsible for language affairs they have to be conveyed to left hemisphere for processing (so it is a two stage processing).

Third, right-ear advantage; with this information an experiment was done in which a subject sat with a set of earphones on and was given two different sound signals simultaneously, one through each earphone. Through one earphone came the word Dog and through other at exactly same time came the word Cat. When asked to say what was heard, the subjects more often correctly identified the sound that came via the right ear. This is known as the Right-ear advantage (Yule, 2006, kimura, 1961, 1967, 1973, 1976, Bartz, Satz, & Fennel, 1967; Broadbent & Gregory, 1964; Carr, 1969; Geffen & Quinn, 1984).

Fourth, importance of speed in simultaneous interpretation; contrary to translation in which time is not probably very important, in interpretation time management is really influential in interpreter's final performance; The most important part of interpreter's job is to have a quick and true understanding and production of speech. Ronald argues that, due to its nature, translation is slow, changeable and remodifiable and not necessarily quick. In other words, the translator has a great deal of time to read just his renderings again and again without feeling any necessity to be in rush. On the other hand, the interpreter can't be slow, has no option to make changes in words' structures and styles and in the circumstances where he/she is rendering texts (Miremadi, 2008, p.181). So, speed in processing information plays a key role in interpreters' performance. This reasoning brought us to inspect how much right ear advantage is influential in interpreters total performance quality. There must be difference between the performance of the interpreters, who use earphone in their right ear than those who use earphone in their left ear, because those who have earphone in their right ear will probably have a quicker interpreting process, based on the right ear advantage principle.

THIS STUDY

In order to bridge the research gap in the case of the effect of right ear use on simultaneous interpreters' interpretation quality, tried to find out the answer to the following question:

- Does right-ear listening has any significant impact on simultaneous interpretation quality?

METHOD

Participants

The participants in this study consisted of 9 Iranian English translation students chosen based on purposive sampling, from University of Isfahan and Sheikh Bahaei University. All the participants were at M.A level and of the same first language i.e., Persian.

Materials

Two instruments were used in order to elicit data and evaluate interpreters' performance:

1- A 6-minute recorded tape from VOA news. Since our purpose was to evaluate participants' simultaneous interpretations, we tried to present them a standard item of news; it is why VOA news was chosen.

2- Carroll's (1965) interpretation quality assessment model (used in order to measure Interpreters' performance). This model was chosen because in one hand it assesses degree to which interpretations sound like normal text as if it had been originally

spoken in the target language and on the other hand it assesses degree to which interpretations convey information of the source language.

Procedure

We divided the recorded sound of VOA news (6 minutes) into 2 tapes of 3 minutes (tape 1 and tape 2). Students were asked to listen to one of the tapes with right ear and the other tape with their left ear. They were asked to interpret these recorded tapes like a simultaneous interpreter. Students' simultaneous interpretations was recorded with another tape recorder and then transcribed on the paper. Then transcribed texts were given to the two independent judges. The judges were not informed of the goals of experiment, and were simply asked to evaluate the texts by assigning them to points on 9 point scales of Intelligibility and Informativeness developed by Carroll (1965).

Two independent judges evaluated each interpretation based on two 9 point scales used by Carroll (1965). The first 'Intelligibility' scale was employed to assess the degree to which the interpreter's translation of the recorded tapes sounded like normal well-thought-out text, and would be understandable in the same way as if it had been originally spoken in the target language. The scale of 'Informativeness', was employed to assess the degree to which the interpreter's translation conveyed information of the recorded tapes. The two raters employed in the present study were both PhD students majoring in University of Isfahan, with some experience in marking translations from English into Persian.

RESULTS

Words correctly interpreted

In assessing the correctness of translations all of the words in the tape were counted as correct if either a correct translation or an acceptable paraphrase was given. The number of words correctly interpreted by each S are shown in Table 1.

Table 1. Mean proportions of words correctly translated

	Mode	Median	Mean
On the axis of left ear	-	137	141
On the axis of right ear	-	131	149

As can been seen from the above table it was found that there was significant difference between the Mean of the words correctly interpreted, on the axis of left ear (M = 141) as compared with the Mean of the words correctly interpreted, on the axis of right ear (M = 149). So those interpretations that have been done based on right ear use of earphone have more correct transfer of words.

Omissions, Errors and corrections

Omissions

Mean numbers of words omitted in interpreting are shown in Table 2. Our purpose was to compare the number of words omitted in interpretation based on left ear use of earphones with the number of words omitted in interpretation based on right ear use of earphones.

Table 2. Mean number of words omitted

	Mode	Median	Mean
On the axis of left ear	18	18	22
On the axis of right ear	-	19	17

According to Table 2 it was found that there was a relatively significant difference between the Mean number of words omitted on the axis of left ear (22) and Mean number of words omitted on the axis of right ear (17). So as the results of this part cry, we cannot deny this fact that those interpretations which have enjoyed use of right ear use of earphone have conveyed more words than those interpretation based on left ear use of earphones.

Errors

Table 3 show the mean number of errors committed (i.e. words wrongly translated). Significantly more errors were made in interpretation based on the axis of left ear than in interpretation based on the axis of right ear. These information verifies the impression gained from right ear advantage that has an eye-catching effect on interpreting.

Table 3. Mean number of errors

	Mode	Median	Mean
On the axis of left ear	-	11	15
On the axis of right ear	-	8	9

Corrections

The number of corrections or revisions of words in interpreting was not noticeable to make any comparison between corrections based on the axis of left ear than correction based on the axis of right ear.

Evaluations of intelligibility and informativeness

Intelligibility

The mean scores assigned by each judge on the amount of Intelligibility of students' interpretation are shown in Table 4. There is a significant effect of right ear advantage on students' performance.

Table 4. Mean of intelligibility

	Judge 1 Mean	Judge 2 Mean	General Mean
On the axis of left ear	6.1	5.4	5.75
On the axis of right ear	7.4	7.1	7.25

This information shows that the difference between Intelligibility of students interpretation based on the axis of left ear (mean=5.75) with Intelligibility of students interpretation based on the axis of right ear (7.25) was significant. So those students who used right ear use of earphones had more intelligible interpretation than those who used their left ear for simultaneous interpretation.

Informativeness

The mean scores assigned by each judge on the amount of informativeness of students' interpretation are shown in table 5. There is not a significant effect of right ear advantage on students' performance.

Table 5. Mean Informativeness scale ratings

	Judge 1 Mean	Judge 2 Mean	General Mean
On the axis of left ear	6.8	6.1	6.45
On the axis of right ear	7	6.4	6.7

This information shows that the difference between informativness of students' interpretation based on the axis of left ear (mean=6.45) and informativness of students' interpretation based on the axis of right ear (6.7) was poor even though again on the behalf of right ear use of earphones.

DISCUSSION AND CONCLUSION

It was seen that, more of the tape was correctly interpreted and right ear advantage had a significant effect on performance of task. This significant interaction between task and right ear advantage seems to indicate that right ear advantage has a great effect on a better interpretation than left ear in terms of words correctly transmitted. The number of words correctly interpreted by each interpreter were shown in Table 1, it was found that there was significant difference between the Mean of correctly translated words, on the axis of left ear (M = 141) as compared with the Mean of correctly translated words, on the axis of right ear (M = 149).

On the other hand, closer examination of interpreters' errors and omissions shows that right ear advantage had differential effects on interpretation. The Mean of the numbers of words omitted in interpreting in Table 2 showed that there was a significant difference between the Mean of words omitted based on left ear use of earphones (22) and Mean number of words omitted on the axis of right ear (17). So it goes without saying that those interpretations which have enjoyed use of right ear use of earphone have conveyed more words than those interpretation based on left ear use of earphones. Table 3 shows that more errors were made in interpretation based on the axis of left ear than in interpretation based on the axis of right ear. These information verifies the impression gained from right ear advantage that has an eye-catching effect on interpreting.

The deterioration in the quality of the translations when listening on the axis of left ear was also reflected in judges' ratings. The mean scores assigned by each judge on the amount of Intelligibility of students' interpretation (Table 7) showed that the difference between interpretations' intelligibility based on the axis of left ear (mean=5.75) and Intelligibility of interpretation based on the axis of right ear (7.25) was significant. So those students who used right ear use of earphones had more intelligible interpretation than those who used their left ear for simultaneous interpretation.

Therefore based on the results of this study, it is suggested that teachers and interpreters consider the benefits of using right ear advantage when located in a simultaneous interpretation situation like, live political news and otherwise TV programs. In addition, the findings and recommendations of this study should not be generalized without taking into consideration the facts that, participants of this study weren't from similar years of experience (in order to control its effect on students' interpretation quality).

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APPENDIX

Scale of intelligibility

9. Perfectly clear and intelligible. Reads like ordinary text; has no stylistic infelicities.

8. Perfectly or almost clear and intelligible but contains minor grammatical or stylistic infelicities and/or mildly unusual word usage that could, nevertheless, be easily "corrected."

7. Generally clear and intelligible, but style and word choice and/or syntactical arrangement are somewhat poorer than in category 8.

6. The general idea is almost immediately intelligible, but full comprehension is distinctly interfered with by poor style, poor word choice, alternative expressions, untranslated words, and incorrect grammatical arrangements. Post editing could leave this in nearly acceptable form.

5. The general idea is intelligible only after considerable study, but after this study one is fairly confident that he understands. Poor word choice, grotesque syntactic arrangement, untranslated words, and similar phenomena are present but constitute mainly "noise" through which the main idea is still perceptible.

4. Masquerades as an intelligible sentence, but actually it is more unintelligible than intelligible. Nevertheless, the idea can still be vaguely apprehended. Word choice, syntactic arrangement, and/or alternative expressions are generally bizarre, and there may be critical words untranslated.

3. Generally unintelligible; it tends to read like nonsense, but with a considerable amount of reflection and study, one can at least hypothesize the idea intended by the sentence.

2. Almost hopelessly unintelligible even after reflection and study. Nevertheless it does not seem completely nonsensical.

1. Hopelessly unintelligible. It appears that no amount of study and reflection would reveal the thought of the sentence.

Scale of Informativeness

9. Extremely informative. Makes "all the difference in the world" in comprehending the meaning intended. (A rating of 9 should always be assigned when the original completely changes or reverses the meaning conveyed by the translation.)

8. Very informative. Contributes a great deal to the clarification of the meaning intended. By correcting sentence structure, words, and phrases, it makes a great change in the reader's impression of the meaning intended, although not so much as to change or reverse the meaning completely.

7. Between 6 and 8.

6. Clearly informative. Adds considerable information about the sentence structure and individual words, putting the reader "on the right track" as to the meaning intended.

5. Between 4 and 6.

4. In contrast to 3, adds a certain amount of information about the sentence structure and syntactical relationships. It may also correct minor misapprehensions about the general meaning of the sentence or the meaning of individual words.

3. By correcting one or two possibly critical meanings, chiefly on the word level, it gives a slightly different "twist" to the meaning conveyed by the translation. It adds no new information about sentence structure, however.

2. No really new meaning is added by the original, either at the word level or the grammatical level, but the reader is somewhat more confident that he apprehends the meaning intended.

1. Not informative at all; no new meaning is added nor is the reader's confidence in his understanding increased or enhanced.

0. The original contains, if anything, less information than the translation. The translator has added certain meanings, apparently to make the passage more understandable.