

INFORMATION RETENTION AS A PARAMETER FOR THE COMPARISON OF SIGHT TRANSLATION AND SIMULTANEOUS INTERPRETATION: AN EXPERIMENTAL STUDY

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0. SUMMARY.

The present work is a corollary to and confirmation of the results presented after experiments were carried out with groups of interpreting students. Although expectations might have led to the idea that professional interpreters with longer experience would have developed information retention capacity to a much greater extent than comparatively inexperienced students, the results obtained in the experiments with professional interpreters corroborate to a very remarkable degree the findings of the earlier paper.

This paper presents the results of an experimental study in which sight translation and simultaneous interpretation have been compared on the basis of information retention. The results obtained appear to indicate that (a) the processes of sight translation and simultaneous interpretation are by no means parallel, as they imply different strategies, and (b) information rates, at least partially, depend on the morphosyntactic relations between source and target languages.

1. INTRODUCTION

Sight translation has hitherto been neglected by scholars analysing the problems of interpretation. Yet, sight translation is widely practised in interpretation courses and it is generally regarded as a useful training tool in the process of acquiring simultaneous interpretation technique, although there is no concrete evidence to this effect.

An analysis of the sight translation process

would, then, appear in order, with particular reference to its relationship with simultaneous interpretation. A thorough study of the analogies and differences between these two translation modes and of the mental processes and mechanisms activated in the two cases would enable an ascertainment of whether, and to what extent, sight translation is really useful as a preliminary exercise and would also provide useful indications as to its use as a teaching support. Analyses of this kind could be carried out by means of studies in which sight translation and simultaneous interpretation are compared and contrasted on the basis of significant parameters. The present work intends to be a step in that direction.

The parameter used in this study is information retention - a parameter that is certainly representative of the mental processes activated by the tasks under consideration. The theoretical reference is a study by Craik & Lockhart (1972) in which information retention was identified as an indicator of the depth at which stimuli are processed. Information retention has since been used by at least two other authors in studies with similar methodologies to that of the present work: by Gerver (1974) and Lambert (1989). The former measured information retention rates in 9 subjects after listening, shadowing and simultaneous interpretation tests; the latter measured information retention rates in 18 subjects after listening, shadowing, consecutive and simultaneous interpretation tests.

2. THE EXPERIMENTAL STUDY

In the present work, information retention rates were measured after the following tasks: listening to a text in a foreign language; reading of a text in a foreign language; sight translation from a foreign language into Italian; simultaneous interpretation from a foreign language into Italian. The foreign languages used were English and French.

2.1. MATERIALS AND METHODS

Two groups of 12 students attending the fourth year of the interpretation course at the School of Modern Languages in Trieste, with English and French respectively as their first foreign languages, and two groups of 9 professional interpreters, with English and French respectively as their "B" languages, took part in the experimental study (for both English and French the number of professional interpreters taking part in the sight translation tests was actually 12). All of them had Italian as their mother tongue.

For the 8 tests (4 involving English and 4 involving French), 8 texts were chosen, the difficulty of which had been assessed as roughly equal. The texts, dealing with matters of current affairs, had an average length of 600 words. The subjects had been informed that after each test they would be required to answer a questionnaire. In the sight translation test, the subjects were required to start translating as soon as the text had been handed to them. In the reading test the subjects were invited to read aloud as if they were before an audience. For the listening and simultaneous interpretation tests, the texts had been tape-recorded by professors of English and French mother tongue. The subjects also used headphones for the listening tests.

Information retention was assessed by means of questionnaires. Each questionnaire included 10 questions, with 4 possible answers for each question. For each question there was just one answer exactly corresponding to the text content, although all alternatives were true or likely. This approach was chosen to minimize the opportunities subjects had to answer on the basis of their personal knowledge rather than on the basis of what they recalled. The subjects received the questionnaires just after the end of each test and were invited to answer promptly, although there was no time limit. The subjects were invited to give no answer if they felt they

could not recall what the text had stated.

2.2. RESULTS

The following tables present the results obtained. For each test the percentage of correct answers is indicated. That percentage represents the information retention rate.

GROUP A (students)

LISTENING (English text)	86.66%
READING (English text)	86.66%
SIMULTANEOUS INTERPRETATION (English into Italian)	75.83%
SIGHT TRANSLATION (English into Italian)	63.33%

GROUP B (interpreters)

LISTENING (English text)	86.66%
READING (English text)	87.77%
SIMULTANEOUS INTERPRETATION (English into Italian)	76.66%
SIGHT TRANSLATION (English into Italian)	60.83% (12 subjects)

GROUP C (students)

LISTENING (French text)	86.66%
READING (French text)	88.33%
SIMULTANEOUS INTERPRETATION (French into Italian)	87.50%
SIGHT TRANSLATION (French into Italian)	86.66%

GROUP D (interpreters)

LISTENING (French text)	87.77%
READING (French text)	87.77%
SIMULTANEOUS INTERPRETATION (French into Italian)	86.66%
SIGHT TRANSLATION (French into Italian)	82.50% (12 subjects)

For each language, the results of the two groups are rather similar and may be summed up as follows:

GROUP AB (English; 21 subjects)

LISTENING	86.66%
READING	87.21%
SIMULTANEOUS INTERPRETATION	76.25%
SIGHT TRANSLATION	62.08% (24 subjects)

GROUP CD (French; 21 subjects)

LISTENING	87.21%
READING	88.05%

SIMULTANEOUS INTERPRETATION	87.08%
SIGHT TRANSLATION	84.58% (24 subjects)

It is interesting at this point to see the results obtained by Lambert in her 'semantic recognition' test, bearing in mind that in her study the subjects were of English mother tongue and were required to translate from French into English:

LISTENING	87.50%
SIMULTANEOUS INTERPRETATION	75.63%

As for Gerver's study, the retention rates, while different in their numerical values, perhaps on account of the different methodology adopted, are consistent with those presented in the tables above:

LISTENING	58%
SIMULTANEOUS INTERPRETATION	51%

2.3. ANALYSIS

A cursory glance at the tables presented above suffices to realize that there are significant differences between the results obtained by the two groups, but there are also other aspects deserving detailed analysis:

(a) Information retention rates after the listening and the reading tests are almost the same, also with reference to a comparison between the two groups - listening: 86.66% (Group AB) and 87.21% (Group CD); reading: 87.21% (Group AB) and 88.05% (Group CD). The retention rate for the listening test obtained by Lambert in her study was 87.50%. These results, referring to comparatively simpler tasks, should be considered the reference values in an analysis of the more complex sight translation and simultaneous interpretation tasks.

(b) In Group AB (English), information retention rates after simultaneous interpretation are lower than after listening. The same result had been recorded by Gerver and by Lambert. This result, which is rather surprising and appears to contradict the Craik & Lockhart theory, is explained by Lambert as follows:

"This unexpected finding may be interpreted thus: listeners are able to devote their whole attention to the processing task, in other words, their full channel capacity to the processing of input, not having to share attention between multiple tasks as in the cases of shadowing, simultaneous or

consecutive interpretation" (1989, p.89).

(c) In Group AB, retention rates after sight translation are lower than retention rates after reading. This result can be interpreted on the basis of the same remarks made under (b). The 'complex' sight translation process requires the performance of multiple tasks, implying a reduction in retention capacity with respect to the 'simpler' reading process. In other words, translation appears to entail a 'cost', a price to be paid in terms of information retention, although, with reference to the Craik & Lockhart theory, processing takes place at a deeper level.

(d) In Group AB, retention rates after sight translation are lower than retention rates after simultaneous interpretation. This unexpected finding indicates that the difference between sight translation and simultaneous interpretation does not lie only in the perception modes or in the processes leading to comprehension. If this were the case, equal retention rates after the reading and the listening tests would imply equal retention rates after the two translation tests; or higher retention rates might have been expected after the sight translation test for reasons such as, for example, the absence of voice overlapping. The result observed, however, is different and may perhaps be explained in the light of the Craik & Lockhart theory. In sight translation, information is constantly available to the interpreter who does not immediately need to process the incoming information chunks, storing them for some time before articulating the translation. In simultaneous interpretation, the form in which the message to be translated is presented imposes on the interpreter a behaviour pattern leading to a longer and deeper information processing. This is not the case in sight translation which may explain the different retention rates observed in the two translation tests. According to Craik & Lockhart, in fact, information retention is a function of processing time and depth.

(e) In Group CD (French), retention rates are approximately the same after the different tests (with the possible exception of sight translation which is characterized by the lowest rate), and there is, therefore, a striking difference between the two Groups in this respect. The problem may be presented as follows: in the sight translation and simultaneous interpretation tests from English into Italian (and in the simultaneous interpretation test from French into English in Lambert's study), translation implies a 'cost' in

terms of information retention (expressed by the differences between retention rates after the translation tasks and retention rates after the 'simpler' reading and listening tasks) which is not, however, the case for the translation tests from French into Italian.

The only plausible explanation appears to be relevant to the languages used in the present experimental study. In a translation from English into Italian, the morphosyntactic differences between the two languages require a considerable effort on the part of the interpreter to transform the surface structure of the message to be translated into the form required by the target language. In a translation from French into Italian, on the other hand, the morphosyntactic analogies between the two languages require less effort to modify the surface structure and the interpreter is therefore free to devote more attention to the deep structure of the message.

If this interpretation is correct, the conclusion is justified that information retention is inversely proportional to the extent to which morphosyntactic transformations are necessary in the passage from the source language to the target language. This interpretation is indirectly confirmed by Lambert's study, where the subjects were required to translate from French into English (two languages with considerable morphosyntactic differences) and the cost in terms of information retention was similar to the cost recorded in the translations from English into Italian in the present study.

3. CONCLUSIONS

The conclusions to be drawn from this study may be summarized as follows:

(a) The different results recorded for the two languages mean that, even in the assessment of a parameter considered representative of the mental processes and mechanisms activated by translation, it is necessary to take into consideration the characteristics of and the relationships between the source language and the target language;

(b) Translation, whether it be sight translation or simultaneous interpretation, implies a 'cost' in terms of information retention. This cost appears to depend on the degree of morphosyntactic transformations rendered necessary by the passage from the source language to the target language : information retention is greater when the two languages involved in the translation

process are similar from the morphosyntactic point of view. In other words, information retention is not, or not only, limited by the translation process as such, but also by the structure of the languages to which the process is applied;

(c) The processes of sight translation and simultaneous interpretation are by no means parallel. The different forms in which the message to be translated is presented in the two cases impose on the interpreter different strategies, affecting the way in which information is processed, with obvious consequences on information retention rates.

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