On Numeric Contextualization in Developing Analytical Efforts and Listening Skills in Undergraduate Students in Classes of Consecutive Interpreting

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Résumé : Un élément essentiel dans la formation des futurs interprètes dans le milieu universitaire est la formation et le développement de leur compétence auditive et de l'analyse des discours qui véhiculent différents types d'informations. Cet article est une étude comparative, car il concerne la mesure dans laquelle deux groupes d'étudiants de la deuxième année d'études, au niveau de licence, qui étudient l'interprétation consécutive de l'anglais (comme langue étrangère primaire et secondaire) vers le roumain, au département de Traduction, Interprétation et Linguistique Appliquée, parviennent à faire face à l'effort d'audition et de production des structures numériques dans le contexte. Il est bien connu que les discours contenant un taux élevé d'information numérique présentent particulièrement des difficultés de traduction tant pour les étudiants – interprètes en herbe que pour des interprètes professionnels. Notre étude a été menée dans le milieu universitaire et, de cette perspective, est de nature appliquée.

Mots-clés : *interprétation consécutive, approche didactique, compétence d'interprétation, discours, contextualisation numérique.*

1. Introduction

A successful interpretation starts with understanding the message delivered by the speaker. At undergraduate level, the first skills to be developed in interpreters-to-be are listening and comprehension. Listening for numbers in context is a demanding process, since the interpreter must not only comprehend what s/he listened to, but also to process the message and differentiate the core information from the secondary elements, which could add some complementary

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details. Thus, consecutive interpreting (CI) is a complicated activity for which an interpreter must be prepared thoroughly and purposefully.

The most responsible part of interpreter's activity is re-expressing the main information retained in her/his mind in the target-language (TL). Therefore, the process of listening is bound to one ability – attentiveness, better to say, remaining focused during the entire period of work. Erroneous rendering of linguistic units that are not properly understood or seem confusing for the interpreter or are "simply" left out because of different reasons may irremediably result in failure of adequate translation.

Revealing the importance of listening and analytical abilities the students-future interpreters should develop by means of assessing their activity is the point of departure for the present article. Thus, our aim is to present a comparative study on the interpretation competence in two groups of students who study CI from English – "A" and "B" language into Romanian (mother tongue (MT) at the Department of Translation, Interpretation and Applied Linguistics (TILA), Faculty of Foreign Languages and Literatures, Moldova State University.

Defined by the *Dictionary of Linguistics and Phonetics* [Crystal, 2008: 108] "context" is a general term to refer to specific parts of an utterance (or text) near or adjacent to a unit which is the focus of attention. If referring to its educational acceptance "to contextualize" means "to put a linguistic element in a context, especially one that is characteristic or appropriate, as for purposes of study", or simply to say "to place and study in context". Since the occurrence of a unit is partly or wholly determined by its context, which is specified in terms of the unit's relations, it gives meaning to this unit and aids comprehension. Therefore, in the light of the above mentioned, we shall define an *exercise of contextualization of numeric expressions* in CI as the transfer of the contextual value of numbers that appear in a text into the TL. It should be noted that this type of exercise is highly complex because it involves a range of activities: *listening, analysing, memorising, note-taking* and then *"deciphering" notes, recollecting ideas for information retrieval and subsequent TL interpretation*, that sometimes must be performed almost simultaneously.

Even though numbers are unambiguous structures and they do not require use of synonyms or restructuring, and some may consider that it should be easy to transfer these types of terms in context from one language into another one, especially if the languages in contact make use of the same graphic symbols, in reality, this process poses difficulties both for students who are trained to become interpreters as well as for professional interpreters. The difficulty with dealing with numbers resides in the fact that, when doing an interpretation, reproducing information such as dates, percentages, measurements and other numeric expressions poses a high level of complexity because they are most likely to be forgotten.

Furthermore, since the translator/interpreter acquires the linguistic structures of his/her MT naturally in the course of time, researchers and

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practitioners consider that interpretation from a foreign language into one's MT tends to be more successful namely due to the person's instinctive knowledge of morphological, semantic, syntactic and lexical aspects of his/her first language. In this respect, James Dickins, Sandor Hervey and Ian Higgins point out that:

> "[…] translator training normally focuses on translation into the mother tongue, because higher quality is achieved in that direction than in translating into a foreign language." [Dickins, *et al*, 2005: 2]

According to D. Gile's Effort Model for the mode of CI [Gile, 1995: 108-110] consists of two phases:

I. the Listening Phase (LP) during which the interpreter is focused on perceiving the utterances, analysing them for key-words, logical connectors and concepts and taking notes and

II. the Reformulation Phase (RP) – characterized by rendering the whole segment into the TL.

In CI listening is used to refer to the perception of the source message. Without proper linguistic knowledge and bad hearing one cannot perform adequately as an interpreter. As far as the LP is concerned, even if the risk of committing errors is higher in interpreting from a foreign language into one's MT, the MT is the language students understand the best and speak at the highest level, and in their MT they can express ideas more coherently and easily. From this point of view we expected from the subjects in the study to have a fluent, coherent speech.

Developing listening skills and memory in the context of authentic interpreting learning is mandatory for interpreters-to-be. Consequently, they must possess:

- active listening skills;
- good memory retention skills;
- note-taking abilities during the interpretation assignment for a more efficient retention and subsequent transposition of the message into TL;
- abilities to mentally transpose and verbalize into the TL.

This paper was initiated with the aim to answer the following questions:

- Do numbers affect the interpretation of the surrounding text?;
- Which Group under study will be prone to misinterpret numbers in context?
- What types of numbers cause problems mostly?;
- To what extent note-taking is helpful in interpreting numbers in context?

2. Preliminary Remarks. Discussing Methodology

At the Department TILA, students start having classes of CI in the second semester of the second year, after they acquire some background knowledge about translation studies. First insights into CI in the academic

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environment starts with memory training. Different types of memory activities are put into practice, with particular attention to information which is more like to be forgotten in the process of interpretation. Some mnemonic activities involving numeric structures we use in classes of CI imply reproduction of series of numbers alone (out of context) from the foreign language into the MT and vice versa; association of numbers to specific events or to some local/sentential context; transfer of numbers in context (starting with short meaningful units and going on with average-length units of thought).

At our Department there are groups of students that study interpretation from English as "A" Language (students' first foreign language) and groups of students that interpret from English as "B" Language (the second foreign language). Though, as we mentioned above, it is expected that students should possess better interpretation skills with their "A" language, interpreting competence is formed and developed in all the four language pairs "A" Language – MT, "B" language – MT, MT – "A" Language and MT – "B" language.

In the present study we were interested in observing students' abilities to render numbers from English – "A" and "B" language into Romanian. Therefore, two groups of students in the 3rd (final) year served as subjects for the experiment. The group who has CI from English as "A" language into Romanian will be hereafter – Group 1 and the group of students who have CI from English – "B" language into Romanian – (Group 2).

Eight students from Group 1 and fifteen students from Group 2 participated in the didactic experiment. One point to be made is that the two groups lack homogeneity both in terms of number of students and in terms of study skills and academic success.

As material for the study served an authentic informative text (fragment of an article delivered by *Agence France Presse*) from the domain of migration suggestively entitled ***Europe's 2016 migrant crisis by the numbers*.** The text presents a description of the situation of migrants and refugees in Europe since the beginning of 2016. It develops a logical train of thought marked by markers of cohesion and alternates between description and presentation of factual information illustrated by means of numbers. The fragment consists of 296 words out of which 41 are numerals. The numbers in the text represent specific values that signify days, years, percentages, etc. and their length varies from one-digit to multiple-digits in the order of hundreds, thousands, hundreds of thousands and millions which gives complexity to the text in the process of interpretation.

Referring to the didactic strategy used by the teacher, for the accomplishment of the study, the text was read by the teacher twice at a normal speed. The first reading was intended as a general presentation of the text for students' knowledge and awareness about the domain the text belongs to, possible unknown linguistic units, to observe and understand numbers in context and, eventually, to note down some numbers. It would have been too challenging if not impossible for students to interpret the discourse without the pre-listening activity.

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As a second step the teacher segmented the text into a list of meaningful units with the purpose to ease students' memory retention and enforce note-taking abilities. Text segmentation also allowed us to detect omissions and different deviations from the SL text. Because of the complexity of numbers our intention to segment the text into shorter semantic units was not to overwhelm students with large chunks of information. Prior the organisation of the experiment students were told about the study and the teacher practiced, though more intensely with "B" language students, listening activities containing numerical expression.

As part of the experiment the teacher asked the students:

- to listen to the discourse selectively once for general knowledge of the domain the text belongs, for possible unknown terms and numbers;
- to listen intently to each segment of discourse uttered by the teacher during the second listening;
- to take notes while listening to aid in subsequent rendering of the information into the TL;
- to aid on the short-memory and the notes to accurately perform the recorded interpretation of each paragraph after the teacher has completed reading.

3. Data Submission and Analysis

As follows, we shall analyse the quality of students' output with attention to *accuracy in rendering numbers in context* (analysed variables: *correct numbers, numbers translated wrongly* and *omission of numbers*). *Lexical, phonetic, and syntactic mistakes* in translating numbers are also to the attention of our study.

In Group 1, 7 out of 8 students who participated in the experiment provided good quality audio files (with one student the audio file could not be listened to due to technical issues). In Group 2 all the audio files were of good quality, so they could be listened to and analysed without constraints. In order to preserve students' anonymity as required by the code of ethics we chose to name them using capital Alphabet letters. The choice of a specific letter to refer to a student is a random choice.

In Table 1 we present the degree of correctness of rendering numbers by the students in both groups.

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Table 1. Comparative analysis of the ratio of numbers rendered correctly, wrongly and omitted in students from Group 1 and Group 2.

Group 1	Correct numbers	Numbers translated wrongly	Omission of numbers	**Group 2**	Correct numbers	Numbers translated wrongly	Omission of numbers
A	40	1	0	**I**	25	13	3
B	38	3	0	**J**	28	11	2
C	35	6	0	**K**	32	9	0
D	39	2	0	**L**	28	12	1
E	29	12	0	**M**	14	19	8
F	33	8	0	**N**	38	3	0
G	34	7	0	**O**	20	16	5
				P	32	6	3
				Q	33	7	1
				R	31	7	3
				S	20	12	9
				U	31	9	1
				V	27	12	2
				W	32	7	2
				X	30	9	3

As we can see in Table 1 the ratio of numbers rendered correctly is higher in Group 1 (an average of 35,4 correct numbers which represents 86,34% of the total numbers) than in Group 2 (an average of 28 correct numbers – which makes up 68,3%).

Two other categories of numbers analysed here are "numbers translated wrongly" and "omission of numbers". If we refer to omitted numbers, then in Group 1 all students rendered all the numbers without any omissions (0% omissions) compared to Group 2 where there was an average of 2.9 (7,1%) omitted numbers. Also, numbers rendered in a wrong way constituted an average of 5.6 (13,7%) in Group 1 and 10.1 (24,6%) in Group 2. Consequently, we note a better performance in students who study CI from English "A" Language.

Being influenced both by external stressors (time limitation, some technology issues or noise) and internal stressors (inability to concentrate, high degree of emotiveness in some students) participants in both Groups experienced psycho-cognitive barriers expressed linguistically in terms of reformulations (3 students reformulated once or twice the same number), panic and fear expressed verbally: "Oh my God, I cannot read this number in Romanian!" and non-linguistically: hesitations, pauses.

On a closer analysis of the data we determined similar causes for errors made by students in both Groups in the process of interpretation. Thus, among the most common "inconsistencies" that could be noted are ***intralingual phonologic interferences***, generally characteristic of non-native English speakers, but which cannot be pardoned to students in the third year who study

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CI. Therefore, at the phonological level among errors that drew our attention were the confusion of:

- "thirty /ˈθɜːtɪ/" for "forty /ˈfɔːtɪ/" like in "34" when the students incorrectly interpreted it "44" while "37" turned to be "47" (the "thirty/forty" combination was translated in a wrong way four times by the same student in Group 2.)
- "seventeen /ˈsɛvənˈtiːn/" for "seventy /ˈsɛvəntɪ/".

Among linguistically inexplicable causes of errors is the translation of "2011" for "2015"or the same "2011" twice rendered erroneously as "2017" by the same student in Group 2. The "accidental" translation of "147,209" for "127,209" or "2,476" for "2,846" or "131,724" for "191,328" may have either linguistic causes, consequences of the lack of students' knowledge or be of non-linguistic nature – a result of the stressful situation the student could not manage.

Another confusion for two students in Group 2 appeared to be the teacher's reading of four-digit years as a pair of 2-digit numbers. It was curious the rendition of "March 2011" as "21 martie (21 March)" and "11 martie (11 March)".

It is necessary to mention that the "inconsistencies" above were noted mainly in good students which is proof that non-linguistic factors and, to be more explicit, psychological stressors influenced the quality of translation. This conclusion is backed-up by post-CI questions addressed to the participants in the study who, most of all, claimed that the text itself was not difficult, it was rather comprehensible and easy to deal with, but the rendering of multi-digit numbers was quite challenging.

Another aspect that attracted our attention was the use of ***determinatives*** such as *around, approximately, more than, over* to refer to numbers that the students were not sure of in transposing them into the TL. Though the exact rendition of numbers was required for this task, some participants in the study used approximations. It may appear that the student is aware that the original number is different or s/he has second thoughts regarding its truthfulness, and accompanies his/her interpretation with a lexical element. Thus, "131,742 migrants and refugees" turned to be "*aproximativ (approximately)* 131,732 migranți și refugiați", "147,209 migrants and refugees" was transposed into Romanian as "*aproximativ* 147,065 migranți și refugiați". In the two cases there is not a great difference between the source- and the target-number so as to irremediably affect the semantics of the TD. Nonetheless, they were included in the category of numbers translated wrongly for reasons of failure to comply with the task.

Other examples, on the other hand, question student's skills of transposing numbers from English "B" language into the MT. Hence, there is no justification for the use of graded quantifiers like "mii de migranți și refugiați (thousands of migrants and refugees)" in translating "131,724 migrants and refugees" or rendering "120,065 people" by "milioane de oameni (millions of people)" or transposing "8,966 migrants" into "peste (over) 800,000" or saying "peste sute de

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mii" instead of the exact number "87,036" or the so general "un număr de morți (a number of dead people)" for the concrete number of "270,000 dead".

We suggest that this was the result of some students' feeble skills of noting down numbers, the incapacity to cope with numbers made up of four and more digits both in English and Romanian.

Contrary to expectations, good students in Group 2 also made use of graded quantifiers even if they mentioned the exact (and correct!) number too. Therefore, "8,966 migrants" became "în jur de (around) 8.966 de migranți" and "122,637 migrants" was translated as "aproximativ (approximately) 122.637 migranți și refugiați". Here, the arguments to support such decisions in interpretation are founded on the lack of confidence or fear of a possible mistake.

Numbers rendered in the TL in the wrong combination, though with the preservation of the magnitude of the stimulus, represent examples of ***lexical mistakes***. The elements of the number are preserved but they appear in the wrong order like in the given example "120,065 people" translated as "120.605 de oameni" or "2476 migrants" transposed into the TD as "2467 migranți", "Greece took in 111,099 migrants and refugees" – Grecia a luat *aproximativ* 111.909 de migranți".

Another category of inconsistencies refers to ***syntactic mistakes*** and includes numerals made up of figures in the correct sequential order but with a wrong order of magnitude. For instance: "270,000 dead" was translated as "27.000 de morți"; "8,966 migrants – rendered as 89,066 de migranți"; "87,036 migrants" transposed into "8,736 de migranți"; "8021 migranți" instead of "821 migrants" or "1,000 more" turns into "100.000 mai mulți". In the examples above we can observe the addition or subtraction of one or more digits. Also to this category belong numbers whose nature has been modified: "44 % were men" becomes "44 erau bărbați (were men)" and "48% of the migrants who arrived in Greece" turns to be "48 de milioane (million) de migranți au venit în Grecia".

As mentioned above, numeric contextualisation is memory oriented. At the phase of memorising larger numbers (six-digits), students were likely to remember and reproduce correctly either the first three or the last three digits, the other part being misinterpreted. Four students in Group 1 tended to remember the last part of the numbers (11 occurrences all in all), while in Group 2 there were registered 14 sporadic occurrences of this kind in 7 students. Also, in Group 2 there was a high ratio of numbers that were completely distorted.

Very often students in Group 1 groundlessly replaced one digit with a completely different one in 64.3% of the cases, thus, distorting the structure of the original numbers. To exemplify we will present some cases. What was supposed to be translated as "dintre care 122.637 au ajuns în Grecia" was rendered as "dintre care 121.637 au ajuns în Grecia"; when 147,209 (migrants and refugees) arrived on Europe's shores was translated as "atunci când 127.209 au ajuns pe țărmul Europei" and the list continues. Instances of replacement of two or three digits were a rare case in Group 1 and completely erroneous numbers occurred

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more with students in Group 2. Because there was no criterion to classify these types of inconsistencies we decided to name them ***other mistakes***.

A comparative analysis of the output in the two Groups revealed a huge discrepancy in terms of typology of mistranslations of numbers: 0% in Group 1vs 7.1% in Group 2 in terms of *numbers omitted*; 0% vs 31,7% respectively in terms of *approximations*; 12.2% in Group 1 vs 17.1% in Group 2 at the level of *phonetic mistakes*; 0% vs 9.8% respectively as far as *lexical mistakes* are concerned; *syntactic mistakes* made up 4.9% in Group 1 compared with a much larger number of 31.7% in Group 2.

4. Conclusion

To conclude, even if the discourse containing numbers was comprehensible and easy to interpret for the students as they themselves claimed so in the post-interpretation questionnaire, the interpretation quality assessment for the numbers showed a range of mistranslations the grounds of which being memory-related difficulties caused by an urgent need to remember as many figures as possible which, in turn, triggered note-taking issues that resulted in poor recording of the data and subsequent wrong information retrieval; lack of knowledge and slow reaction for noting down numbers; stressors and inability to cope with emotions also lead to unwanted results.

Students in both groups under study made mistakes in transposing numbers from English into Romanian which affected the quality of the TD. The rate of mistranslations was higher in Group 2 (24,6%) compared with Group 1 (13,7%) even if students in Group 1 had more prior interpretation activities involving numbers in context.

From another perspective, both complex and simple numbers were susceptible to be misinterpreted. Nevertheless, with the process of interpreting going on, the accuracy of interpretation of numbers increased due to note-taking which is a must in interpreting longer segments that contain information that is most likely to be forgotten, more concentration and speed of encoding and decoding of information.

Although all the participants in the study carried out the interpretation into their MT the result of the assessment of interpretation showed that students in the two Groups misinterpreted the numbers at different levels causing, among frequent errors: omissions and distortions, using approximations (when not the case), making lexical, phonological and syntactic mistakes.

With the purpose to overcome inconsistencies in interpretation, special attention should be rendered to listening, memory training, full attention and concentration, especially when dealing with information that the human being is inclined to forget quickly. For a better training of the ear interpreters-to-be are suggested to practice attentive listening for key elements and exercises of shadowing to enhance short-term memory; activities to improve concentration and awareness for details like writing down numerical data or proper names

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from a paragraph that is read out by the teacher or by another person; exercises of listening and note-taking of proper names, numbers, lists, dates in context; exercises of discourse segmentation starting with interpreting shorter segments that contain information students are prone to forget and continuing with longer units of thought to increase the level of difficulty, etc.

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