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Individual factors of listening comprehension in a second language: implications for interpreter training

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Les facteurs individuels dans la compréhension orale d'une deuxième langue: les conséquences pour les interprètes en formation

Résumé

L'interprétation simultanée, en tant que traduction orale, se charge d'exprimer le message en le reformulant dans une autre langue, de façon quasiment instantanée, en temps réel et en situation contextualisée. Il faudra non seulement reproduire le message dans la langue cible selon une compétence purement linguistique, mais aussi prendre en compte des facteurs essentiellement pragmatiques qui permettent d'interpréter correctement l'acte de parole en fonction de son intention de communication. C'est donc la compréhension orale en langue étrangère qui, dans le cadre de ce processus interprétatif, apparaît comme une exigence fondamentale. Tout en présentant les avancées dans cette spécialité, ce travail s'attache à montrer la façon dont ces progrès entrent en relation avec une meilleure compréhension du processus d'interprétation simultanée. Finalement, il proposera des pistes visant à introduire ces résultats dans la formation des interprètes.

Mots-clés: interprétation simultanée, compétences en interprétation, difficultés pour l'interprétation, compréhension en L2, formation d'interprètes

Factores individuales de la comprensión oral en la segunda lengua: Implicancias para la formación de intérpretes

Resumen

La interpretación simultánea es una forma de traducción oral en la que un mensaje expresado en una lengua es reformulado en otra lengua casi inmediatamente, en tiempo real y un contexto situado. Esta tarea requiere la habilidad no sólo de producir una versión correcta y completa del mensaje en la lengua de llegada, sino también que éste cumpla el propósito comunicativo y la intención pragmática del mensaje original. En el proceso de interpretación, la comprensión oral en una lengua extranjera es entonces fundamental. Este trabajo presenta una breve revisión de los avances en este campo y de cómo se relacionan con nuestro entendimiento del proceso de interpretación simultánea. Se abordan además pautas sobre cómo incorporar estos resultados en la formación de intérpretes.

Palabras clave: interpretación simultánea, competencias para la interpretación, dificultades en interpretación, comprensión en L2, formación de intérpretes

Abstract

Simultaneous interpretation is a form of oral translation in which a message spoken in one language is rendered into another language almost immediately, in real time and in a situated context. This entails the ability to provide not only an accurate rendition in the target language but also one that fits into the communicative context and fulfills its pragmatic intent. Comprehension in a second language is therefore at the core of the ability to interpret. This paper presents a brief review of recent advances in this field and how these relate to our understanding of the simultaneous interpreting process. Suggestions as to how to incorporate these findings into the interpreter classroom are discussed.

Keywords: language interpreting, interpreting competence, difficulty in interpreting, L2 listening comprehension, interpreter training

1. Introduction

Language interpreting is a form of translation in which a first and final rendition of an oral text is produced in a target language on the basis of a one-time presentation of an utterance in the source language (Pöchhacker, 2004). This definition highlights the immediate and real-time nature of interpreting performance in its various modes – while in consecutive interpreting, the interpreter produces the translated segment of speech after an original segment was produced, in simultaneous interpreting interpreters produce the target segments at the same time as they are listening to the following segment of speech.

The ability to comprehend a message, to grasp its meaning or sense in order to render it in another language, is then at the core of the competence for interpreting (Gile, 2009). Listening comprehension is, therefore, one fundamental component of the interpreting process that usually involves comprehending information in the listeners' second language. Gass and Selinker (2008) define a second language as any language learned or used after the first, native language has been learned; while a foreign language is a second language learned in a formal setting in a country where the native language is spoken, like learning French or English in Chile, or Spanish in France or Canada.

Most theoretical accounts of the interpreting process recognize three macro-processes (a) comprehension of a segment of source speech; (b) reformulation into the target language; and (c) production of a target segment that is both semantically equivalent to the source segment and fulfills its pragmatic function and communicative purpose (see a recent review in Christoffels and de Groot, 2005). From a cognitive

perspective, simultaneous interpreting is thus a highly complex task, which is usually performed in a context of difficulty as source speeches are often specialized and deal with topics unfamiliar to the interpreter; speech delivery can be fast and foreign accents are common in a globalized society that uses English as a lingua franca. This results in interpreters having to work close to the limit of their cognitive capacity (Gile, 2009).

This paper sets out to highlight recent findings about the individual factors that predict performance in second or foreign language listening comprehension, e.g. linguistic proficiency in the first and second language, working memory, background knowledge and metacognitive strategies, and how they support similar conclusions arrived at in interpreting research. In this brief review, factors related to the oral text such as speed of delivery, information density, and foreign accents, while relevant to interpretation as well, will not be addressed due to space limitations.

2. Individual factors of listening comprehension in the second language and interpreting

Listening comprehension has been defined as the ability to 1) process spoken language automatically and in real time; 2) understand the linguistic information contained in an oral text; 3) comprehend the gist of the text; and 4) make the inferences explicitly or implicitly contained in the text (Buck, 2001). Listening is an interactive process in which the linguistic information contained in the text interacts with the pragmatic information derived from the communicative situation, the listener's background knowledge, and his/her expectations and objectives, in order to build a mental model o representation of the communicative event (Buck, 2001; Flowerdew and Miller, 2005).

Several studies show that individual factors, such as listeners' proficiency in their first and second language, working memory capacity, background knowledge, and metacognitive strategies, as well as other features of the oral text (information density, speed of delivery, foreign accent, etc.) significantly predict second language listening comprehension (see a recent review in Bloomfield, Wayland, Rhoades, Blodgett, Linck and Ross, 2010).

2.1. Linguistic proficiency in the second language and background knowledge

The relationship between levels of linguistic proficiency and performance in listening comprehension is not yet clear, as most studies have not used a single standardized test to establish fluency and lack a common definition of "proficiency" to compare results across studies (Bloomfield, et al. 2010). An indirect measure, though, like vocabulary

size has demonstrated a strong association to predict listening performance. Recent studies by Nation (2006), Staer (2009) and van Zeeland and Schmitt (2013) suggest that for an adequate and optimal comprehension (95%-98% of words in a text) an individual should have a vocabulary size of 6.000-7.000 word families. However, more research is needed to associate these results to measures of linguistic proficiency. Moreover, these studies have measured listening comprehension of general narrative texts and not of specialized genres.

For interpreters, the International Association of Conference Interpreters establishes that professional interpreters should have a high command of their working languages, with a native or near-native command of their first and second language. However, only a few studies have used standardized tests to measure second language proficiency in an interpretation task and there is still a research gap on what is the minimum proficiency needed to produce acceptable interpretations or to engage in efficient interpretation processes. Research on interpreting expertise has associated excellence in interpreting performance to a given number of years of experience as professional interpreter, however this premise has not always hold (Tiselius, 2013). Again, more research is needed in the Interpreting Studies community to establish profiles of performance across variables of linguistic proficiency.

One key factor in listening comprehension is the role of background knowledge in compensating for low linguistic proficiency or small vocabulary size. Results show that prior knowledge about the topic, textual genre, cultural knowledge and other schemata stored in long-term memory play a role both in first and second language comprehension (Long, 1990; Vandergrift 2007). Goh (2000) found that background knowledge could help listeners to overcome low-level difficulties, such as word identification, by using context to derive the gist of a message.

In simultaneous interpreting research, the role of background knowledge on interpreting performance has also been established. Díaz-Galaz (2012) found that interpreters who were given access to topic-related materials produced more accurate translations than those they produced when they were not able to study such materials in advance. Moreover, the effect of prior preparation of topic related materials reflected on the reformulation strategies they used to solve problems encountered in interpreting. In the preparation condition interpreters used topic knowledge to produce complete and accurate equivalent segments in the target language, while in absence of topic knowledge, both experienced and inexperienced interpreters resorted more frequently to omissions and generalizations that increased the ambiguity and reduced the specificity of their target speeches.

2.2. Working memory

The construct of working memory refers to a limited capacity, structural and functional component of the cognitive system devoted to the storage, processing and executive control of information in language and thought processing (Baddeley and Hitch, 1974).

While studies on this field are limited, there is evidence that comprehending in the second language increases working memory demands to the cognitive system (McDonald 2006; Miyake and Friedman, 1998). Recent studies have also shed light on the interactive nature of the listening process, since several studies have found significant interactions of working memory with other factors, such as topic familiarity (Lesser, 2007); task difficulty (Walter, 2004) and the language of administration of memory tests, in which the amount of working memory available for processing a first and a second language differs (Harrington and Sawyer, 1992; McDonald, 2006).

In simultaneous interpreting research, the role of working memory has attracted the attention of researchers first from the field of cognitive psychology and then from the Interpreting Studies community. In simultaneous interpreting, the concurrent processing of the speaker's speech and the interpreters' speech prevents the interpreter from keeping information in long term memory for further processing; thus information must be retained in working memory long enough to be processed. The first studies conducted on this issue (Padilla et al., 1995) showed that experienced interpreters' recall was not affected and that they had indeed a higher working memory capacity than the two control groups (untrained bilinguals and monolinguals). This was the first piece of evidence supporting the hypothesis that interpreters, through training and practice, develop adaptive processes specific to the task.

While the study of differences in working memory capacity in experienced and inexperienced interpreters has produced mixed results, (see Christoffels, de Groot and Kroll, 2006; Liu et al. 2004; Padilla et al., 1995) there is agreement among scholars that it is not that expert interpreters have a higher working memory capacity in absolute terms, but instead that constant practice enables them to use their limited cognitive resource in a more efficient and flexible way when processing lexical and semantic information. Recent studies that have focused on the executive tasks that underlie working memory capacity support this view (Padilla et al., 2005; Yudes et al., 2011).

2.3. Metacognitive strategies

Metacognition is a construct that refers to the ability of humans of being aware of their own mental processes (Flavell, 1979). Two features of metacognition have been identified: the ability to manage one's own processes to attain certain goal (problem-solving) and the ability to monitor one's performance for constant improvement (self-assessment). This entails both knowledge *about* cognitive states and processes and knowledge on *how* to control or manage those processes.

Vandergrift, et al. (2006) discovered that problem-solving strategies, planning and evaluation strategies, self-knowledge and directed attention were, among others, significant predictors of listening comprehension scores in an English placement test. Interestingly, interpreter trainers usually stress the importance of learning and applying such types of strategies in order to successfully carry out the interpreting process. Interpreters must learn how to cope with the difficult features of speeches that trigger problems (Gile, 2009); interpreters monitor the accuracy of their output by confronting it with the mental representation they retain of the source segment; and they must direct their attention focus to several concurrent tasks in a very limited time frame. While no specific model of interpretation competence has been proposed yet, studies on the development of interpreting expertise show that experienced interpreters have developed, for instance, better monitoring strategies than novice interpreters to identify and solve problems in the interpreting process and better strategies to direct attention to the macro-structure of a message (gist) and not to the superficial features of the oral text (Ivanova, 1999; Hild, 2011; Liu et al. 2004; Tiselius, 2013).

3. Implications for interpreter training

These succinct and by no means exhaustive review shows that the factors that interact to determine second language listening comprehension have also been identified in the process of simultaneous interpreting, although more research is needed as to establish the strength of these interactions in representative simultaneous interpreting tasks and which adaptive processes have been developed specifically for this complex task. However, these findings can provide interpreter trainers with valuable, research-based insights to inform pedagogical practices for interpreter training. The following guidelines may be useful to facilitate the development of meta-cognitive strategies that will ultimately enhance comprehension processes when interpreting.

3.1. Language learning in a representative context

While it can be argued that the interpreting class is not a language class, it is inevitable that language learning occurs when working with oral texts for interpretation. The goal of listening-for-interpreting is to grasp the core meaning of a segment to immediately reformulate it in another language. In this context, students may either learn new words and terms, or learn new target-language equivalents for a known word or term. In either case, students are learning new vocabulary in a representative context of a real-life interpretation assignment. Students also tend to learn the new word/term and pair it with its equivalent word in the target language. This exercise is extremely valuable as items learned together in a shared context are usually stored and retrieved together through association and spreading activation (Anderson, 1983; Gile, 2009). This means that when encountered again both the term and its target-language equivalent will likely be activated and retrieved together.

3.2. Background knowledge activation

Instructors can take advantage of the benefits of background knowledge by giving the topics of the speeches that they will work in class or in an evaluation. Students can also be provided with or directed to related reference materials to produce concept maps or glossaries in preparation for an interpreting assignment (exercise or evaluation). Students need to know that their processing will be different when they prepare for an interpretation than when they do not, so that advance preparation is instilled as a healthy habit for their professional life.

Likewise, before starting interpretation practice in the classroom, instructors can direct a brainstorming session to activate core concepts, clarify terminology, and agree on an accepted equivalent for a term. Instructors can also direct students' attention to difficult elements in the source speech, like information density, high speed of delivery, etc., so they plan a strategy to cope with such difficulties. It is important that these activities encourage students to play an active role in finding and discovering meaning and problem-solving strategies for their own process of interpretation.

3.3. Introspection and self-assessment

Introspection and self-evaluation is key to the development of meta-cognitive strategies. Introspection is the analysis and reflection on one's own performance; while self-evaluation can be defined as an assessment conducted by the student on his/her own performance. Since in second language listening and in interpreting so many

individual factors interact in the process, the sources of problems vary from student to student. The overarching aim of introspection and self-evaluation is to increase the student's awareness of his/her own processes and to learn how to develop effective strategies to cope with what is difficult for him or her.

Choi (2006) proposes a five-stage metacognitive evaluation method in which first both the student and the instructor assess the interpretation *process*: they identify the students' problems and establish the priority issues that the student needs to address first. Practice is done through interpretation exercises and concludes with a reevaluation and monitoring of how the student worked on the problems previously identified. These process-oriented activities are formative evaluations that do not need to be associated to a qualification or grade.

4. Conclusion

In conclusion, this brief summary shows that listening comprehension is an interactive process that entails bottom-up/top-down operations that occur in parallel, distributed fashion. It also shows that several factors interrelate to achieve skilled listening. While many of these findings have been observed as well in interpreting research, more investigations are needed to establish how these factors interact in a representative interpreting task and to explore the process components or operations that may develop specifically for this complex task.

These findings, though, have significant implications for interpreter trainers. Although these guidelines can be applied at any stage of interpreter training, they are especially useful at early stages when trainees are first starting to establish patterns of problem-solving strategies to deal with a given difficulty as they begin to develop their own interpreting process.

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