# Comprehension: An Essential Element in Interpreting Training

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"Language is a process of free creation; its laws and principles are fixed, but the manner in which the principles of creation are used is free and infinitely varied." — Noam Chomsky

#### **Abstract**

Oral comprehension that is achieved during interpretation implies a cognitive exchange between the information received and the use the interpreter makes of it. This means that the knowledge of the language and the extra-linguistic knowledge (i.e. the knowledge of the world) will help to comprehend the communication process that will enable the interpreter to know what piece of the information received is relevant to transmit the speaker's message and what is not. To comprehend a message the mind needs to resort to and perform several functions in the short-term-memory. First, it selects the useful part of the message, splitting it between primary and secondary information. Then, it decodes the data received and grasps the meaning of the message. Only then, full comprehension is achieved, since the mere recognition of words (i.e. understanding) is not enough to fully comprehend a piece of speech (find its meaning). Thus, the cognitive process of interpretation implies a level of comprehension of the source language within a context that goes beyond the simple recognition of words and linguistic structures. In other words, short-term-memory and comprehension are key elements that cannot be separated.

The training of professional interpreters is based on two pillars: the development of the *Short-term-Memory* together with good *comprehension skills*.

So, the first and foremost principle in interpretation training consists in **understanding** first and **comprehending** afterwards what the speaker has decided to communicate and *the manner* he has chosen to do it. A professional interpreter's education consists in exercising and training the cognitive processes that will enable the interpreter to achieve this aim.

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In this sense, which is the difference between **understanding** and **comprehension**? In general, these two verbs are used as synonyms. But in the specific case of interpretation there is a significant difference that can be noted in a variety of situations.

#### Understanding

The meaning of *understanding* is more rational and superficial. *Understanding* means in the first place *listening* to the acoustic sounds, then *transforming* that sound into words and phrases and finally *recognizing* and *identifying* the literal meaning of that particular word or phrase. It is a superficial cognitive process that implies a mere mental representation or image of what was heard.

Do you understand what I am saying? (i.e. Are you listening?)

Have I made myself understood? (i.e. Is it clear?)

## Comprehension

On the other hand, *comprehension* means *to decode the message* that was heard and understood. It is a deeper cognitive process that is related to ideas, messages, aims and intentions behind a word or phrase. So, to achieve *full comprehension* it is necessary to put *meaning* into the data received or heard that may enable the interpreter to *comprehend the message*.

*Comprehension* implies the ability *to grasp* not only the literal meaning of the individual words or phrases but also the ability *to grasp their connotations* within a given context.

I understand your words, but I cannot actually comprehend what you mean.

(i.e. I can hear you but it makes no sense to me.)

*Comprehension* is not a passive process. On the contrary, it is a process that demands from the receiver (or the interpreter) an equal or an even higher mental activity than the verbal expression process (by the speaker). The speaker performs only one cognitive process, while the interpreter performs three simultaneous processes, i.e. *listening*, *processing* from source language to target language until *production* or delivery of the interpretation as we will see below.

Although the cognitive process performed by the interpreter *to comprehend* is the same in each situation, the difference lies in the amount of data the interpreter needs to process to achieve *full comprehension*, such as a highly technical speech or a speech with a very high linguistic register.

Therefore, a professional interpreter needs first *to understand* and subsequently *comprehend* the speaker's words in terms of the key components of the communication process, i.e. *Message, Linguistic Structures, Aims* and *Intentions*.

### Comprehension in the Act of Communication

Oral comprehension that is achieved during interpretation implies a cognitive exchange between the information received and the use the interpreter makes of it. This means that the knowledge of the language and the extra-linguistic knowledge (i.e. the knowledge of the world) will help to comprehend the communication process that will enable the interpreter to know what piece of the information received is relevant to transmit the speaker's message and what is not.

There are several theories about the way in which the *short-term-memory* processes the information and uses background knowledge *to comprehend* what is actually transmitted in the communication process. However, in interpreting training two basic models are important:

- **The bottom-up model**: The mind processes the information in only one way:
  - o by identifying sounds with a subsequent superficial analysis;
  - o by following a linguistic and structural recognition process to undestand the actual meaning within the communication setting.
- **The top-down model**: The mind makes use of the extra-linguistic elements to perform a *specific analysis* in each communication process that leads to full comprehension.

This means that to *comprehend* a message the mind needs to perform several functions. First, it *selects* the useful part of the message, splitting it between primary and secondary information. Then, it *decodes* the data received and grasps *the meaning* of the message. Only then, *full comprehension* is achieved, since the mere recognition of words (i.e. *understanding*) is not enough to *fully comprehend* a piece of speech (*find its meaning*).

Thus, the cognitive process of interpretation implies a *level of comprehension* of the source language within a *context* that goes beyond the simple recognition of words and linguistic structures. In other words, *short-term-memory* and *comprehension* are key elements that cannot be separated. As an example, consider the translation of the following sentence:

The failure was caused by a faulty **nozzle**.

La falla se produjo por una boquilla defectuosa.

(a small device at the end of water hose)

La falla se produjo por una **tobera** defectuosa.

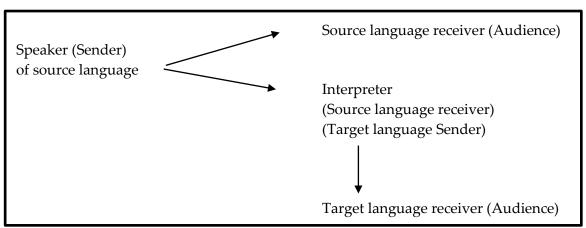
(a large piece of equipment that transforms thermal energy of a fluid into kinetic energy)

For this reason, interpretation requires a first instance of *visualization* of the mental image within a certain *context* after *listening* to a speech segment in the source language. A professional interpretation does not imply the reproduction or repetition in the target language, but rather the *comprehension* of the *speaker's message* to transmit the *right meaning* in the target language.

Based on the above, *interpretation* is not a linear process of the transfer of information from one language to the other, but a *three-stage cognitive process*:

- 1. *Perception Stage*: the source language is heard and understood.
- 2. *Comprehension Stage*: the source language is decoded in units of meaning.
- 3. *Reexpression Stage*: the source language is transmitted with the characteristics and peculiarities of the target language.

For that reason, the *comprehension* process in interpretation is a two-way activity, as shown below in the communication workflow of interpretation:



From the above diagram we can infer that there are two main actors in the *comprehension* process of interpretation: the *interpreter*, who is the source language receiver and target language sender, and the *audience*, who is the source and target language receiver.

If the *interpreter does not comprehend* what the speaker says, he or she cannot interpret. On the other hand, if the *audience does not comprehend* what the interpreter says, due to a poor oral expression or delivery, the communication process is broken. This is the reason why *comprehension* is one of the key pillars of interpreting training.

Therefore, the *comprehension* process of the interpreter is divided in two stages with very specific requirements:

- 1. The interpreter must *comprehend* what the speaker says. Therefore, the interpreter should have an excellent *listening comprehension* of the source language to grasp and transmit the *message* according to the *meaning* determined by the *context*.
- 2. The audience or target language receivers must *comprehend* what the interpreter says. Therefore, the interpreter should have an excellent *oral expression* in the target language so that the audience may *comprehend* the *message* that the speaker wants to transmit with a certain *meaning* and constrained by the *context*.

Regarding item 1. above, it is essential to consider the type of speakers that the interpreter is called to comprehend. The speaker typology is important as a determining factor of the characteristics of the speech in terms of linguistic and semantic resources, register, pace and expression.

# **Typologies of Speakers**

- The unexperienced speaker, speaks or reads quite fast, thus bursting out words to transmit ideas or concepts. He stammers and retracts himself all the time.
- The chaotic speaker, doesn't have a logic line of thought. He beats around the bush all the time and gets lost in his own reasonings.
- The shocking speaker, seeks "to break the ice" or generate a "shock" in the audience through some unexpected action. He makes jokes and cannot understand why the audience does not laugh at them.
- The histrionic speaker, speaks with the affectation or exaggeration of an actor. He
  poses and makes gestures that clearly show that he is acting to show off instead of
  communicating an important message. He uses unconventional language to conceal or
  make up for the lack of ideas.
- The progressive speaker, tries to capture the attention of the audience by speaking quite slowly at the beginning and as soon as he thinks he has succeeded he speeds up and increases the density of the speech to exceptional levels.
- The straightforward speaker, is very sure of himself, the subject matter of the conference and the level of knowledge of the audience. He uses extremely technical terminology and a very high linguistic register, "for experts only".

A second important point to consider are the linguistic and extra-linguistic elements that may hinder or totally impair *comprehension*. Languages are not structured on the basis of exactly the same lexical, syntactical or phonological patterns and therefore, there is no exact correlation of words and structures between the source and target languages.

In this sense, *comprehension* is based on four basic elements:

- The knowledge of both source language and target language
- The knowledge of contrastive grammatical rules and structures of the pair of languages
- The knowledge of the context
- The knowledge of the political, economic, social, cultural and scientific background information also called *extra-linguistic knowledge*

If the above is not met, the result may be a *literal reformulation* or *transcoding* from the source language to the target language leading to a clumsy, awkward, erroneous or meaningless interpretation in the target language.

# The Role of Short-Term-Memory in Comprehension

During decades, linguists, psychologists and neurologists have been studying the phenomenon of bilingualism. The findings of the research and studies in this field applied to interpretation may be summarized in what Macanamara and Kushnir (1971) called *The Bilingual Switch Mechanism* that enables the interpreter to perceive, understand, comprehend and produce information verbally in two or more languages either *sequentially* or *simultaneously*. In the case of the interpreter, this mechanism may the described as follows:

- An *Input switch* in the brain allows the interpreter to *receive* the sound waves and decode them into a *message* in the source language.
- The information received by the brain in the source language is *analyzed* for comprehension purposes and *processed* into the target language in the *Short-term memory*.
- The time required by the *Short-term-Memory* to analyze and process the information from the source language to the target language is called *Time lag*.
- Finally, an *Output switch* is triggered by the brain to enable the interpreter to *produce* the information already received and processed and *decode* it in the target language.

A few years later, in 1995 and building on the *Bilingual Switch Mechanism Theory*, Daniel Gile developed the *The Theory of Efforts in Interpretation*:

- *Listening and Analysis Effort*: covers the cognitive operations from the perception of sound to the moment the interpreter *decodes* the sound to give it *meaning*.
- *Short-term Memory Effort:* covers the cognitive operations related to the storage of information in the memory until the moment it is delivered in the interpretation.
- *Production Effort*: covers the cognitive operations from the moment the interpreter understands and comprehends the message and transmits in the target language with its characteristics and peculiarities.

Based on these two theories, the training of professional interpreters should be focused on the development of the *Short-term Memory* where the most important cognitive processes are performed, i.e. comprehension, attention, retention, until interpretation is produced sequentially in the form of consecutive interpretation or simultaneously.

Perhaps the most complicated cognitive process of the *Short-term-Memory* during the training of professional interpreters is the interpreter's capacity of *division of attention*, that allows to perform several mental operations at the same time. Thus, *concentration* is an essential element to achieve this goal. If *concentration* is not mastered through specific exercises, the goal would not be achieved.

*Division of attention* means that in addition to the cognitive efforts above mentioned, the interpreter needs to:

- listen to two speeches at the same time, i.e. the speaker's speech and its own speech, in the case of simultaneous interpretation.
- listen to the speaker's speech and store the information in the *Short-term-Memory* until the time of delivering the interpretation, in the case of consecutive interpretation.

And finally, the last element to consider is the time factor or *Time lag*. The *delay of the Time lag* required to process and interpret a written speech in the case of first sight interpretation, or a verbal speech in the case of consecutive or simultaneous interpretation is of a fraction of a second to complete the full cycle of *listening/ understanding/ comprehending/ processing/ producing*. But it is also short enough to create serious *comprehension* and interpretation problems.

Comprehension, memory, concentration, attention, retention and time to deliver are the key factors that must be exercised during the training of professional interpreters until they are proficiently mastered. The road to follow by trainees is hard and challenging. But if this is not perceived as a tedious and frustrating process, trainees will certainly capitalize the opportunity of learning and enjoying the magnificent gift and flair of communication.