HOW GESTURES FACILITATE COMMUNICATION AMONG THE SPEAKERS OF ENGLISH AS L2 AND THE IMPLICATIONS FOR LANGUAGE EDUCATION An interview of two Tamil native speakers in an English work context in Italy

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Abstract – This paper analyses the cognitive and socio-pragmatic functions of the gestures used among the speakers of English as L2 by presenting an interview of two Tamil native speakers who had moved to Italy for short periods to work in a mechanical multi-national company. English is the L2 of all of the workers in the workplace in Italy. The aim is to remark on how gestures can improve foreign language speaking and facilitate comprehension among L2 speakers. This is in addition to highlighting the necessity of considering the cultural variability of gestures in cross-cultural contexts. From the language education point of view will be considered the cognitive advantage of using gestures as a strategy for language teaching and the need for foreign language learner to becoming aware about the cultural variability of gestures in order to get the necessary intercultural competence.

Keywords: gestures, cognitive functions, language learning, intercultural competence.

1. Introduction¹

For a long time, gestures have only been considered in studies on the origin of language which analysed them as an elementary and primitive stage of language development. It is being increasingly proven more often that gestures play an important role in human communication in every level of language learning (Rauscher et al. 1996; McNeill 2000, 2005; Morsella, Kraus 2004; Kita 2000; Kita et al. 2017), not only in the first one. Since they prepare and integrate with the verbal production as well as compensating for it according to the cultural differences when conceptualising the world and our experiences, language studies need to consider gestures in terms of both their cognitive function and socio-cultural one. Gestures have the cognitive power and pragmatic ability to positively influence communication and to facilitate and improve production and comprehension, therefore it can be argued that they can be used as a tool in communication in crosscultural situations and as strategy within language teaching and learning. This paper intends to analyse the role of gestures in foreign language communication by highlighting aspects which need to be assumed in a language education perspective as it has been made by studies such as Macedonia and Knösche' work (2011). In this regard, this contribution intends to assume the cognitive and socio-pragmatic role of gestures starting from the

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¹ I would like to thank the two anonymous reviewers for their suggestions and comments.

observation of the communicative functions of gestures in foreign language situations and of the cultural variability of gestures across different language. Firstly, the theoretical framework will be put forward by presenting the cognitive and communicative functions of gestures. Secondly, an interview with and between two Tamil men who use English as their L2 for communicating in the workplace in Italy will be presented and the data drawn from it carefully analysed. Thirdly, the results of the interview will be considered from the language teaching point of view. This study will provide an original analysis of the language education implications of the cognitive function of gestures and the cultural variability of gestures emerging through the metaphorical gestures considered by the interview. The relevance of gestures from the communicative point of view will be considered in relation to the language competence that a foreign language learner needs to acquire within the framework of communicative and human affective approaches to language education.

2. Cognitive and Communicative Functions of Gesture

Recent studies argue that representational gestures have a cognitive function in addition to a communicative one. They can be considered an extension of cognitive activities such as thinking, memory, problem solving, and learning. Representational gestures have the power to represent what one intends to verbalise, what one is talking about or what one has just finished uttering (McNeill 1992, 2000). Therefore, they can prepare, help, reinforce or explain speech. Among representative gestures are included deictic, rhythmic, iconic, and metaphoric gestures. Thanks to gestures, cognitive activities take advantage of a spatial visual form that facilitates mental organisation and verbal conceptualisation (Alibali et al. 2000; Kita 2000). According to the Information Packaging Hypothesis, gestures allow speakers "to explore alternative ways of organising a perceptual array" so as to help the speakers "break down a perceptual array into verbalizable units" (Alibali et al. 2000, p. 610). By re-representing perceptual or motor knowledge in verbal form, gestures prepare and improve the use of words facilitating verbal language speaking and understanding (Chu et al. 2014; Ping et al. 2014). Furthermore, what is expressed by gestures and not only by verbal language captures more attention (Tomasello 1995) and is memorised more efficiently (Tellier 2008). In fact, it can be inferenced that gestures permit the focusing of the attention of those who receive them, activating the processing of the inputs by the working memory. The latter is composed of a central executive that works as a supervisory attentional system that activates and directs the operations on the inputs to be processed by the phonological loop (assigned to phonological traces processing) and the visuospatial sketchpad (assigned to visual trace processing) (Baddley 2007). Gestures improve the activation of the supervisory attentional system and they offer a spatial-motoric form of input in addition to the phonological ones. This reinforces the rehearsal and maintenance of the traces during the processing across the subcomponents of the working memory (phonological loop and visuospatial sketchpad).

As gestures play a role in the conceptualisation of the message to be verbalised and in cognitive activities, they do not solely have a lexical retrieval function. Gestures help speakers to explore alternative ways of organising what is perceived and they support its segmentation into verbal units (Krauss *et al.* 2000, p. 610). They allow for the rerepresentation of the perceptive and motor knowledge of a space-motor modality that integrates with the verbal one. By focusing on some aspects of a situation or a specific element, gestures influence verbal conceptualisation. By providing a visual representation



of the thought, gestures can play a decisive role not only in the purpose of conceptualisation but also in other cognitive activities such as memory, reasoning, problem-solving, and learning.

We assume that representational gestures have both an internal function in an organisation since they structure thoughts according to visual representations from which verbal conceptualisation takes form and an external communicative function because they reinforce and sometimes compensate for the verbal production. They can also be used to communicate independently from verbal language. In this regard, McNeill (1992, 2005) argues that gestures, thought, and speech interact and shape each other by establishing unity related to the speaker's way of thinking through images and words: the so-called 'growth point'. It has also been argued that inhibiting gestures negatively influences not only speech fluency (Rauscher *et al.* 1996) but also the speech content as well (Rimé *et al.* 1984).

Thus, gestures allow speakers:

- To organise their thoughts and to allow them to be verbalised.

- To better produce their speech, making it more fluent and clearer.

- To reinforce the meaning of what is being uttered by offering images of it.

Gestures also have a pragmatic function by allowing speakers to communicate in situations where silence is recommended or necessary or where it is not possible to interfere by adding other words to those of the main speaker. The power of a gesture to facilitate the organisation and fluency of the talking of speakers and the understanding of their speech makes them an effective and emotional form of support. They contribute to creating a more positive and less stressful context of communication.

By considering the cultural variability of the conceptualisation that affects gestures and not only words, it may be highlighted that associated issues can arise in communication. Gestures can be used in language education contexts: they can teach cultural specificity by offering themselves as a tool to solve problems of comprehension when it comes to gestures with a different meaning. As Lakoff and Johnson argue (1980, p. 3), "metaphor is pervasive in everyday life, not just in language but in thought and action. Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature." Within the cognitive linguistic perspective, metaphor is not a marginal creation of language. It is instead a general cognitive rule that governs our thinking and ways of life and communication. Since concepts are metaphorically based on the human perceptual-motor experience, gestures are an embodied extension of our cognition. They display the metaphorical nature of our conceptualisations. This metaphorical conceptualisation changes from one culture to another. For this reason, gestures present as having cultural variability. Foreign language speakers need to consider gestures and their cultural variability so then they can become better aware of the possibility that they could have different meanings across different cultures. Becoming sensitive to the cultural variability of gestures is required in order to use and understand them correctly in cross-cultural situations like communication in a foreign language among speakers from various cultures or in a language learning classroom with different native speakers and learners. If someone interprets a gesture according to the meaning of their own culture but it has another meaning in the foreign culture, a misunderstanding could arise. Therefore, when we join a foreign culture, it is important to prepare for these kinds of differences. If one intends to learn a foreign language, there is a need to also learn about the correct use and meaning of gestures in the culture of target language. It is necessary to interpret and reproduce gestures correctly

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based on the situation to avoid misunderstandings and to be respectful. Gestures should be an important part of communicative and cultural competence in a language.

3. Interview Context and Method

The function of gestures used among the speakers of English as L2 will be analysed using an interview of two Tamil native speakers who moved to Italy for short periods of work as engineers in a multi-national company. The aim was to test how gestures integrate with their speech in a foreign language, how they help foreign speakers when they are talking, and how they can illuminate the cultural differences present in the conceptualisation facilitating comprehension among the L2 speakers.

The interview took place in Lecce in November 2019. Two men from Tamil (India) were interviewed. I decided to meet them for an interview after hearing about the communication difficulties that they experienced in the English workplace in Italy reported to me by their Italian boss. I was carrying out research into the cognitive functioning of gestures and I was curious to investigate the use of gestures by the speakers of English as L2. This was in order to test their use of gestures as support for communication in a foreign language and the cultural differences that this use allowed to emerge. Therefore, the main goal of the interview was to test the role of gestures in L2 speaking and to understand it in a cross-cultural context.

I asked for their willingness to answer some questions on their language which I specifically thought according to my research interests. They accepted without being informing beforehand about the precise questions that I was going to put to them. We met for the first time on the day of the interview and we spent a whole day together. During our time together, in addition to collecting the specific answers to my questions, I observed their unconscious use of gestures in accompaniment of their attempts at both an explanation and understanding. In this regard, it is to be highlighted that after my putting most of the questions forward, they interacted with each other in Tamil, accompanying their talking with gestures. This was in order to clarify my questions with each other, to verify their correct understanding of it, and to organise their thoughts before giving a reply. I shed a light on one of the most frequent gestures used during their talking in Tamil related to a specific question in my interview.

The interview took two hours and all of the questions, apart from those concerning the explanatory gesture observed during their talking in Tamil, were prepared by me before starting the interview according to the points that I intended to investigate through it. The role of gestures in foreign language communication and the issues and potential of metaphoric gestures from a cross-cultural point of view were also addressed. The two Tamil men are both engineers and they moved for a short period to the south of Italy to work in an international company. They only communicated in English with their Italian boss and colleagues and with the locals. English is a second language for all involved. As will be shown, in some cases, my question was answered by just one of the two men, although they often discussed what to reply with. To other questions, I received replies from both.

The first four questions were about their language knowledge and about the languages learnt and spoken in their country. I then questioned the duration of their stay in Italy and the language used in the workplace. I tested their meta-cognitive ability related to the use of gestures. I tried to extract the differences that they observed about their use of

gestures and that of their Italian boss and colleagues. My questions for this part of the interview also aimed to explore the functions of the gestures that they experienced when communicating in English in the workplace in Italy. Finally, I asked them questions about some metaphorical gestures like those for the past and future, an explanatory gesture referred to as the conduit metaphor that I observed in their speech and the scissor hand gesture. The goal was to investigate the cultural differences emerging in the production of the gestures and the issues and potential hidden in the different use of these gestures.

4. Interview

Q: Where are you from?

 A^2 : We are from Tamil Nadu, a state in the South of India.

Q: What is your mother tongue?

 A^2 : Our mother tongue is Tamil.

Q: It is not the official language of India?

 A^2 : No, it is not. India consists of 29 countries and several different languages. Until a few years ago, Indians used to learn only English as a second language but today, they study the mother tongue of the country where they live. English and Hindi should become the official languages across the different states of India. Nevertheless, Hindi is currently the most spoken language above all in the North and the middle of India. It has not yet been declared as the official language for the entirety of India.

Q: How many languages do you speak?

A¹: We speak two languages: Tamil and English.

Q: How long have you lived in Italy for?

 A^1 : I have lived here for six months.

 A^2 : I lived here for two months last year and I have lived here for six months this year.

Q: Do you use English to communicate at work?

A¹: Yes, right.

 A^2 : Yes.

A: I see that you use gestures a lot when talking each other and with me. During your stay in Italy, have you observed some relevant differences between Italy's use of gestures and yours?

A¹: Yes, sure. Italian people use gestures much more than we do.

A²: Yes, let me tell you something. My boss and I had a series of misunderstandings during my first days in Lecce. I gave affirmative or negative replies to him by moving my head left-right or up-down. When I replied "yes" by moving my head left-right, he understood that my reply was "no". When I replied "no" by moving my head up-down, he understood that I had replied "yes". It was contrary to what I meant. Because of his misunderstanding of my answers, our communication did not work very well. He often thought that I did not grasp his instructions. Therefore, he tried to repeat the same information using different forms of expression. It was very strange until it became evident that in India, we use the exact opposite gestures from what is used in Italy to say "yes" and "no."

Q: Do you think that you have increased your use of gestures since you live here?

 A^2 : I am not aware of whether I have increased my use of gestures or not. I think that we use gestures less than you. But I know that when my boss talks with the other Italian colleagues of our team, he does use fewer gestures than when he tries to communicate or explain something to me and Suresh.

Q: Do you think that this remarkable use of gestures by your boss facilitates your learning of the tasks that he assigned you?

 A^1 : Yes, sure.

 A^2 : Yes. I noted that sometimes when he assigned me something to do without explaining my task, he also used gestures. I needed to ask him for a second explanation to be sure that I had understood correctly. His gestures displayed to me what he intended to communicate, thus clarifying the message. Seeing the gestures simultaneously with my boss speak made me aware that gestures allow me to think better of the work that I must do.

Q: Do you also tend to use gestures in your replies to your boss or when talking to your colleagues?

 A^2 : Yes, I need to use gestures to represent what I want to communicate to the other team members. Sometimes I use them in my second attempt to express something, when the first attempt is unsuccessful. In these cases, I have the feeling that they support my expression as they help me to make what I am saying clearer and more comprehensible.

Q: Well. Now, I want to ask you something useful to shed a light on the cultural differences regarding the use of gestures. I am extremely interested in knowing what kind of gestures you use to express the past and future.

 A^2 : Ok, let me think of a situation.

Q: Yes. Maybe I can help you by giving some examples in English or translating in English some Italian sentences. You can try to think whether they work in Tamil and, in general, whether you have similar expressions in your culture or not.

 A^2 : Yes, good idea! It will be better.

Q: When we talk about events that have happened, we use sentences like "Do not think about it anymore. It is passed water" [it: Non pensarci più, è acqua passata] and "I left it (what happened) behind me" [it: Mi sono lasciato alle spalle quello che è successo]. When talking about future events or plans, we say "I don't know what to expect" [it: Non so cosa aspettarmi] and "I'm trying to look ahead" [it: Sto cercando di guardare avanti]. Thus, the future is something that stays ahead of us while the past is behind us. Gestures for the future and past respect these orientations. Have you something similar in your mother tongue?

 A^{1} : At the moment, I cannot remember some of the typical Tamil ways of speaking about the past and future to repeat to you, but I am sure that the past and future have the same spatial collocation in our culture. Therefore, in our communication, we talk about the past as something behind us and of the future as something ahead.

Q: During your talk, I saw that Suresh used gestures for the future and past like our gestures in terms of orientation but different in some respects. For instance, to explain the future, Suresh used a gesture that included a forward rotation of the hand. What does it mean?

A¹: Yes, the gesture you saw is this:



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Picture 1 Gesture for the future

 A^2 : I think that I can give you an explanation. When starting to gesture, the hand has a straight position with the palm facing downwards. What stays under the hand is something unknown, something hidden which has not yet happened. With the forward rotation of the hand, what was unknown is coming to be displayed because it is going to happen.

Q: That is notable. The future is expressed by a gesture that represents the displaying of the hidden unknown that is going to happen. What can you tell me about gestures for the past? Suresh made two different gestures: one was the finger pointed behind himself and the other one was by the movement of his entire hand in a backwards direction. What is the different context of the use of these two gestures? A^1 : Oh, yes. I think that we can say that we use the pointed finger orientated behind when we refer to a specific event that has happened.



Picture 2 Gesture for the past

Instead, we use the entire hand oriented behind when we refer to past events in a more general way.

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Picture 3 Gesture for the past

Q: Chandira, I observed another interesting gesture during your talk with me when you were formulating an answer. I saw that when you tried to explain something to me, you used a kind of gesture which seems to mean that you are showing me something (I tried to repeat Chandira's gesture to better clarify the question), right? A^2 : Yes. This one:



Picture 4 Explanation gesture

Q: What do you think it means?

A: I think that the meaning is something like the following, as what I tried to explain is something that I should pull out. It is on my body and I tried to show you it, making it visible to myself as well.

Q: I would like to ask you something about another kind of gesture. We use the scissor hand gesture like this (I reproduce the scissor hand gesture, see the picture below) to invite someone to stop their speech or to shorten it because it has become too long.

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Picture 5 Italian cut gesture

Q: Do you have a similar gesture in your culture?

 A^{1} : We also use a gesture to invite someone to shorten or stop their talk but our gesture in similar contexts is another one. I tried to show it. We bring the thumb close to the neck and move it outwards:



Q: Interestingly, your gesture is like a threatening Italian gesture, so if you use it in your conversations with Italians, it could be misinterpreted. Thank you both!

5. Some Remarks

More than 20 languages recognised by the government are spoken in India. Although it was planned to have only Hindi as the official language, Hindi and English have continued to be the official languages in India. In fact, the planned transition over fifteen years from English to Hindi as the national language ratified by the Indian constitution in 1949 has never been completed (see Part XVII of the Indian Constitution: 212-213). This is mainly due to the resistance of regions in southern India such as Tamil Nadu, which is where the two interviewees come from. There Hindi has not yet spread and the two Tamils did not study it at school. Thus, it can be said that India is affected by a deep-rooted multilingualism and the role of English for official and economic purposes is more prominent than in Italy (Gundling, Zanchettin, Global 2006). The increasing industrialisation process and the consequent exposure to multilingual and multicultural economic contexts that have affected India are crucial in determining the resistance of English as the most widespread official language across different lands.

The two interviewees affirmed that they perceived that the use of gestures among Italian people was greater than their own. This is well-known and was deepened by cultural studies on the Italian language. Italians as well as the other populations in the

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Mediterranean area tend to gesticulate a lot, using many conventional gestures (Morris 1994; Diadori 2013). In Southern Italy where the interview took place, the use of gestures is even more prominent (Kendon 1995). It has been reported that Italian children produce more frequent representational gestures because they are immersed in a gesture-rich culture (Gullberg, McCafferty 2008, p. 137). Besides this kind of cultural specificity, it is known that each child starts to communicate using gestures and vocalisations. Later they gradually develop their verbal language. In fact, the functions of gestures go beyond the initial stage of human language in use, integral to how we communicate (make meaning) both with which other and with[in] ourselves" (Gullberg, McCafferty 2008, p. 133).

The claim "When my boss talks with other Italian colleagues of our team he does use fewer gestures than when he tried to communicate or explain something to me and Suresh" permits the argument that gestures increase in foreign language situations which present a major risk of misunderstandings or difficulties when trying to express clearly and/or efficaciously. Gestures reinforce their cognitive power to organise the thoughts that are to be verbalised by the spatio-motor form. This is in addition to their ability to facilitate comprehension providing explanations of speech in the visual space. They offer a stronger form of help to language production and comprehension and this was proved by one of the interviewees: "I noted that if sometimes he assigned me something to do without explaining my task also by using gestures, I needed to ask him [for] a second explanation to be sure [that] I had understood correctly. His gestures displayed to me what he intended to communicate clarifying the message and seeing gestures simultaneously with my boss' speaking made me aware that gestures allow me to think better of the work I must do" and "I need to use gestures [to] represent what I want to communicate to the other team members. Sometimes I use them in my second attempt to express something, when the first attempt was unsuccessful. In these cases, I have the feeling that they support my expression as if they help me to make what I am saying clearer and more comprehensible."

Gestures can vary from culture to culture. Although some representational gestures are iconic, many others are conventional and arbitrary like their associated words are. This feature can cause misunderstandings like that of the 'yes' and 'no' gestures between the interviewee and his boss. This issue of communicative misunderstandings concerning the cultural variability of gestures emerged within the context of the Indian gesture for inviting someone to shorten his/her speech which one of the two interviewees referred to. It could be misunderstood in Italy and interpreted in a threatening way because it is like the Italian gesture used to say to someone "You are a dead man" (it: *sei un uomo morto*). In Italy, it is also often used as a playful threat.



Picture 6 Source: Morris 1994: 208

This suggests that the cultural specificity of gestures should always be considered when

interacting with foreign speakers. When we come into contact with a foreign language and culture that is different from ours, we are always exposed to mistakes in the interpretation of gestures. As Desmond Morris (1994) underlines, it is possible that "what is polite in one region is obscene in another. What is friendly here, is hostile there".

Metaphoric gestures in both the past and future are a visual-motor form of orientational conceptual metaphors expressed in sentences like "I'm afraid of what's up ahead of us" (Lakoff, Johnson 1980, p. 15) and "Find the life that you want and don't look back." Since our concepts are metaphorically based on the perceptual-motor experience as Lakoff and Johnson (ibid.) argued, the metaphoric structure of our concepts has an everyday dimension in both thought and language. Metaphoric gestures can be considered an extension of the embodied cognition and an ordinary manifestation of it. The metaphorical structure of our concepts is affected by cultural variations. In one culture, the future is conceptualised as something ahead and past (Müller 2008, p. 488). In another, it is exactly the opposite: the future is behind because it has not yet been seen and the past is ahead since it has already been lived and so it is known and visible. From the replies of the two Tamils interviewed, it emerged that in India, the future and past are represented as ahead and behind respectively. The little although significant difference in the gesture for the future must be considered. One of the two interviewees explained that when they starting to gesture, "the hand has a straight position with the palm facing downwards" and "what stays under the hand is something unknown, something hidden which has not yet happened", meaning something that the future will disclose. He added that "with the forward rotation of the hand, what was unknown is coming to be displayed because it is going to happen." The couple of concepts hidden/put on display is added to the spatial collocation "ahead" in order to give an ontological conceptualization of the future as an object.

The co-speech gesture for the purpose of explanation is also used metaphorically. The interviewee describes resorting to this gesture while claiming that it means that what he tried to explain is something that he may pull out. It is based on his body and he tried to make it visible to himself as well. This claim confirms both the internal and external functions of gestures as we argue in the second section. They have the sensory-motor function of organising the internal verbal production of the speaker by providing a visual form of speech that accompanies the latter, reinforcing the message and facilitating comprehension. This gesture is an expression of the conceptual conduit metaphor analysed by Lakoff and Johnson (1980) that represents a speech act as a transmission of the content (a meaning) from the sender to the receiver through a conduit (phonological or graphemic traces and/or motor visual form). By using it the interviewees give an embodied support to the thought to be verbalized: the two men perform their attempts to clarify their message displaying that cognition is embodied.

6. Language Education Implications

The analysis of the interview confirms that gestures play an important role in organising thought and speech in foreign language performance related to both internal cognitive and external communicative functions. They help the L2 speakers to better organise their thinking by speaking in a foreign language and they collaborate with words in the construction of speech. Gestures also make easier to understand what is being said by focusing their attention on specific features of the situation. As emerged in the interview, gestures have an important explanatory function. When someone is trying to explain



something to another, the use of gestures is instinctively increased to make the comment "visible" and to represent in the space what is to be said for the purpose of making it clearer and more immediate. This provides important data: gestures can be knowingly and competently used to facilitate learning.

From the foreign language learning perspective, gestures have two important kinds of function: a cognitive function and a socio-pragmatic one. Considering the cognitive function, we can remark that, as highlighted in the second section and shown by the interview, gestures improve the production and comprehension of tasks and their contents. They are instruments to be consciously used as a teaching strategy for the purpose of facilitating language learning. In this regard, Daniela Sime (2006, p. 211) writes that "one of the crucial things that learners learn in a language classroom is how to interpret the teacher's gestures in conjunction with their verbal input in order to learn successfully."

Many studies have argued that the use of gestures by teachers has a positive effect on the learners' attention and memorisation (Tellier 2008; Gullberg 2008). Gestures can direct and optimise the attention processes. Tomasello argued that deictic gestures allow for the joining of attention: language arises, develops, and functions only through the processes of joint attention (1995, pp. 106-107) which is necessary in the initial stages of every kind of learning. It is also essential in many ordinary situations of communication and learning. At least two persons must pay common attention to something or someone in the surrounding environment and they must be aware of this common attention. Whoever observes the gesture must assume that whoever makes it is an intentional agent with whom he is sharing a visual space in addition to emotions and changes in context. In the same way, whoever makes the gesture expects that those who observe him can share the visual space within which he acts as well. This assumes that there is the same focused attention and expectation of behaviour (Tomasello 1995, p. 112).

By activating the visual mode, all gestures involve selective visual attention tasks. They involve the selection of specific parts of the visual space in which they take place and on which attention is called to focus. Each gesture directs the attention based on the information to be conveyed. It is a focused attention task in which it is necessary to filter the relevant input necessary to communicate. In the case of gestures that do not communicate independently but instead accompany words, a divided attention task should be performed. Attention is paid simultaneously to the different inputs which complete each other by reinforcing the trace to be comprehended and memorised. The use of gestures by teachers allows the learners to modify the verbal input on a pragmatic level, allowing them to direct attention not only to what the teacher is saying but also to what the teacher simultaneously does. This produces "a mirroring effect in the students who unconsciously reproduce the same gestures of the teacher with mirror effects that indicate the adaptive and imitative typical attitude of the role of the student in the language class" (Diadori 2013, p. 2, my transl).

The *Total Physical Response* theory developed in the 1960s by Asher is based on the idea of the total involvement of learners in the learning process of a foreign language, i.e., physical as well as mental involvement through the association of physical responses to verbal commands (Asher 1969). The *Total Physical Response* is one of the more affective approaches used in language education: the physical involvement as well the mental one permits control and the reduction of anxiety and stress which causes the students to speak in a foreign language from the earliest stages of language learning. It gives the student the opportunity to listen to the commands and respond to them physically until they feel ready to begin to speak in the target language. The physical response includes the important role of the gestures and movements observed and produced in the



class. The total involvement of learners seems to have a positive impact on the motivation to learn but it is a learning method that assigns little autonomy to the students. The latter plays quite a receptive role: they listen to the commands which they then execute without creative or free participation from a communicative point of view (Visciola 1998). Nevertheless, this language education method considers the advantage of using the physical response through gestures for the purpose of successful language learning.

Tellier claims that "many second language teachers who use gestures as a teaching strategy declare that they help learners in the process of memorising the second language" (2008, p. 220). The co-occurrence of both verbal and non-verbal modalities improves the learning process. According to several scholars who argued for dual coding theory (Clark, Paivio 1991), an input coded through different modalities leaves a deeper trace in the human memory system. Our working memory is a multimodal system that includes an auditory input codification and a visual one (Baddeley 1990; 2009). To use both modalities makes the memorisation more efficient (Moreno, Mayer 2000). A combination of visual and verbal modalities with a motor modality additionally reinforces the memorisation (Engelkamp, Zimmer 1985; Cohen, Otterbein 1991). Therefore, the verbal expressions that are accompanied by gestures are better understood and memorised because gestures add the relevant visual modality information about the meaning of the expressions. The verbal expressions accompanied by the reproduction of gestures is clearer, well-organised, and leaves "a richer trace on memorisation" (Tellier 2008, p. 223).

We have affirmed that gestures also have socio-pragmatic functions. Gestures have social-cultural value. As we have seen through the results of the interview, gestures can be conventional and arbitrary. This means that their meanings can vary from one culture to another. They are affected by cultural differences and they make these differences visible. It can be argued from the language education point of view that it is necessary to develop an awareness of the gestures' cultural differences in order to get a satisfying level of communicative competence and to use it best. The cultural dimension of gestures is important on both the expressive level using the correct gestures according to the different face to face interaction situations and on the comprehension level to avoid misunderstanding which discourages the students, thus creating a negative emotional disposition. This can compromise the interaction in the foreign language and the achievement of communicative competence. In fact, a misunderstanding of the gestures used can negatively affect the motivation necessary "to do" the language, or to put into practice what has been learned. Errors of interpretation concerning a gesture can inhibit the communicative initiative of foreign language speakers.

Communicative ability, the ability to "make" language, is the central focus of the communicative approach of language education. It includes extralinguistic and sociocultural items and therefore also the ability to understand and reproduce the gestures of the reference community of the target language. According to the communicative approach argued by Dell Hymes (1972), communicative competence can be considered the ability to use a language appropriately for multiple purposes and in different situations. Communicative competence requires the use of language in relation to the social, pragmatic, and intercultural aspects of the communicative competence is the ability to perform an action through language and this includes:

- Linguistic skill which "is the ability to understand and produce phonological, morphological, syntactic, lexical, and textual well-formed utterances" (Balboni 2020, p.34, my transl.).

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- Extra-linguistic skills which refers to "the ability to understand and produce body expressions and gestures (kinesics competence) to evaluate the communicative impact of interpersonal distance (proxemic competence) [and] to use and recognise the communicative value of objects and clothing." (Balboni 2020, pp. 34-35, my transl.).

- Contextual skills (sociolinguistic, pragma-linguistic, and intercultural skills) refer to the language in use (Balboni 2020, p. 35).

Extra-linguistic skills are closely related to the socio-pragmatic and intercultural skills that foreign languages learners may acquire. They need to be educated about the role played by gestures in a specific culture. It is necessary to teach, from the earliest levels of language learning, the meaning of the gestures used most frequently in everyday communication contexts as well as the relationship that gestures have with the reference target language.

The reasons that make the teaching of gestures in a foreign language learning context important are as follows:

- Recognising the cultural meaning of a gesture is important to allow for the understanding of the communicative intention of foreign language speakers.

- Not correctly interpreting the meaning of a gesture can produce misunderstandings.

- Gestures have a precise link with the circumstances in which they are used and with the expressive register of the communicative context. It is therefore necessary to understand when and with which kind of interlocutor a gesture can use or not.

- Since gestures are characterised from a cultural point of view, they are able to convey knowledge about the habits, customs, ways of thinking and lives of people who use them.

Becoming sensitive to the fact that gestures can assume different meanings on the basis of the cultural differences that influence their conceptualisation across various cultures is an important goal to be achieved by foreign language learners (Balboni 1999; Balboni, Caon 2015). This includes knowing the differences or even just getting ready to learn about them, observing and archiving the new meanings in order to exchange them with the familiar ones at the appropriate moment, and being willing to renegotiate the meaning of gestures within a new cultural space in the immediate communicative context to avoid misunderstanding. In general, from a language education point of view, this favours the development of intercultural competence (Balboni 2020, pp. 136f).

7. Conclusions

Gestures are a relevant part of human thought and communication. They play an important role in cognitive processes such as attention and memory. Therefore, they positively influence activities such as speaking and learning which are related to the associated cognitive processes. They are of pragmatic importance due to their social value and cultural variety. Gestures display information about verbal language and culture, animate the lessons by assigning the turns of speaking and soliciting the student to produce the language, and permitting evaluation by providing an alternative way to correct mistakes (Taleghani, Nikazm 2008; Tellier 2008).

By considering the cognitive functions played by gestures in L2 communication through what has been reported by and in the interview, we have concluded that teachers can use gestures as part of a successful teaching strategy. Further studies in the field of educational linguistics should mainly investigate the strategic use of gestures in language classes in terms of stimulating the motivation, participation, and the improvement of



communicative competence in order to fully educate language teachers and learners on the cognitive abilities of gestures. Gestures improve and facilitate the communication and learning of what is taught because they stimulate attention, focus it, and can empower the participation of students by providing them with a more positive learning surrounding. In this regard, they permit the establishment of an empathic relationship between the teacher and students, supporting the understanding of foreign language words and the ways of speech facilitating it. This makes the introduction of a new lexicon in the classroom less stressful. Gestures allow for the presentation of new lexical, grammatical, or phonological inputs in a manner that is more effective and enjoyable, thus motivating learning.

Furthermore, as we remarked based on the results of the interview which let emerge the cultural variability of gestures, they allow for the negotiation of meaning across different cultures by showing and sharing the differences in meaning in a more immediate and comprehensible way. Therefore, it can be concluded that foreign language teachers must consciously use gestures during their lessons. They must develop an intercultural competence in their students to prepare them to meet any cultural differences using gestures. From a language education perspective, the cultural specificity of gestures should be a key content of language courses and the cultural variability of gestures across different languages needs to be deepen more and more by specific research.

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References

- Alibali M.W., Kita S. and Young A.J. 2000, *Gesture and the Process of Speech Production: We Think, Therefore We Gesture*, in "Language and Cognitive Process" 15 [6], pp. 593-613.
- Asher J.J. 1969, *The Total Physical Response Approach to Second Language Learning*, in "The Modern Language Journal" 53 [1], pp. 3-17.
- Balboni P.E. 1999, Parole comuni culture diverse. Guida alla comunicazione interculturale, Marsilio, Venezia.
- Balboni P.E. 2020, Le sfide di Babele. Insegnare le lingue nelle società complesse, Utet, Milano.
- Balboni P.E. and Caon F. 2015, La comunicazione interculturale, Marsilio, Venezia.
- Baddeley A.D. 2007, Working memory, thought and action, Oxford University Press, Oxford.
- Baddeley A.D. 2009, The development of the concept of working memory: Implications and contributions of neuropsychology, in Vallar G. and T. Shallice (eds.), Neuropsychological impairments of short-term memory, Cambridge University Press, Cambridge, pp. 54-73.
- Chu M., Meyer A., Foulkes L. and Kita S. 2014, *Individual differences in frequency and saliency of speechaccompanying gestures: The role of cognitive abilities and empathy*, in "Journal of Experimental Psychology: General" 143, pp. 694-709.
- Cienki A. and Müller C. 2008, *Metaphor, gesture, and thought,* in Gibbs R.W. Jr. (ed.), *The Cambridge handbook of metaphor and thought*), Cambridge University Press, Cambridge, pp. 483–501.
- Clark J.M. and Paivio A. 1991, *Dual coding theory and education*, in "Educational Psychology Review" 3 [3], pp. 149–210.
- Cohen R. L. and Otterbein N. 1992, The mnemonic effect of speech gestures: Pantomimic and nonpantomimic gestures compared, in "European Journal of Cognitive Psychology" 4 [2], pp. 113-139.
- Diadori P. 2013, Gestualità e didattica della lingua straniera: questioni interculturali, in Luise C. M. (ed.) Aspetti comunicativi e interculturali nell'insegnamento delle lingue, Edizioni dell'Orso, Alessandria.
- Engelkamp J. and Zimmer H. D. 1985, *Motor programs and their relation to semantic memory*, in "German Journal of Psychology" 9, pp. 239–254.
- Gullberg, M. 2008, Gestures and second language acquisition, in Ellis N. C. and Robinson P. (eds.), Handbook of cognitive linguistics and second language acquisition, Routledge, London, pp. 276-305.
- Gullberg M. and Mccafferty S. Introduction to gesture and SLA: Toward an integrated approach, in "Studies in Second Language Acquisition" 30, pp. 133-146.
- Gundling E., Zanchettin, A. and Global A. 2006, The Role of English in India, in Chandra B. et al., Global Diversity: Winning Customers and Engaging Employees Within World Markets, Nicholas Brealey Publishing, Boston, pp. 84-85.
- Hasher L., Lustig C. and Zacks R. 2008, *Inhibitory Mechanisms and the Control of Attention*, in Conway, A. R.A., Jarrold C., Kane, M. J., Miyake A. and Towse J.N. (eds.), *Variation in working memory*, Oxford University Press, Oxford, pp. 227-249.
- Hymes D. 1972, "On Communicative Competence", in Pride J. B. and Holmes J. (eds.), *Sociolinguistics*, Penguin, Harmondsworth, pp. 269-293.
- Kendon A. 1995, Gestures as illocutionary and discourse structure markers in Southern Italian conversation, in "Journal of Pragmatics" 23 [3], pp. 247-279.
- Kita S. 2000, *How representational gestures help speaking*, in McNeill D. (ed.), *Language and gesture*, Cambridge University Press, Cambridge, UK, pp. 162-185.
- Kita S., Alibali M. and Chu M. 2017, *How Do Gestures Influence Thinking and Speaking? The Gesture-for-Conceptualization Hypothesis*, in "Psychological Review" 124, pp. 1-62.
- Krauss R.M., Chen Y. and Chawla P. 1996, Nonverbal behaviour and nonverbal communication: What do conversational hand gestures tell us? in Zanna M. P. (ed.), Advances in experimental social psychology. Academic Press, San Diego, pp. 389-450.
- Lakoff G. and Johnson L. 1980, Metaphors We Live by, Chicago University Press, Chicago.
- Macedonia M., Knösche T.R. 2011, Body in mind: How gestures empower foreign language learning, in "Mind, Brain, and Education" 5, pp. 196-211.
- McNeill D. 1992, Hand and Mind. What Gestures Reveal about Thought, University of Chicago Press, Chicago (Illinois).
- McNeill D. 2000, Language and Gesture, Cambridge University Press, Cambridge.
- McNeill D. 2005, Gesture and Thought, University of Chicago Press, Chicago.
- Moreno R. and Mayer R.E. 2000, A coherence effect in multimedia learning: The case for minimizing irrelevant sounds in the design of multimedia instructional messages, in "Journal of Educational Psychology" 92 [1], pp. 117–125.

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Morris D. 1994, Bodytalk. A World Guide to Gesture, Jonathan Cape Ltd, London.

- Morsella E., Krauss R. 2004, *The Role of Gestures in Spatial Working Memory and Speech*, in "The American Journal of Psychology" 117 [3], pp. 411-424.
- Ping et al. 2014, Understanding gesture: Is the listener's motor system involved?, in "Journal of experimental Psychology" 143, pp. 195-204.
- Rauscher F.H., Krauss R.M. and Chen Y. 1996, *Gesture, Speech, and Lexical Access: The Role of Lexical Movements in Speech Production*, in "Psychological Science" 7 [4], pp. 226-231.
- Sime D. 2006, *What do learners make of teachers' gestures in the language classroom?* in "International Review of Applied Linguistics in Language Teaching" 4 [2], pp. 211-230.
- Taleghani-Nikazm C. 2008, Gestures in Foreign Language Classroom: An Empirical Analysis of their Organization and Function, in Bowles M. (ed.) Selected Proceedings of the 2007 Second Language Research Forum, MA, Cascadilla Proceeding Project, Somerville, pp. 229-238.
- Tellier M. 2008, *The Effect of Gestures on Second Language Memorisation by Young Children*, in "Gesture" 8 [2], pp. 219-235.
- The Constitution of India, 1949, https://www.india.gov.in/sites/upload_files/npi/files/coi_part_full.pdf.
- Tomasello M. 1995, Joint attention as social cognition, in Dunham M. (ed.) Joint attention, LEA, pp. 103-129.
- Visciola P. 1998, Total Physical Response, in Borneto C. S., C'era una volta il metodo. Tendenze attuali nella didattica delle lingue straniere, Carocci, Roma.