



## APHASIC SPEECH IN INTERACTION: RELEARNING TO COMMUNICATE BY GESTURE WHEN A WORD IS LACKING

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**Abstract:** Resolving the inability to produce a word through a gestural realization is often a compensatory strategy used with aphasic patients. However, context and interpersonal knowledge between participants are also essential factors for finding or guessing the right word or the right gesture. In the "Interactions between Aphasic people & Caregivers" project, we explore video-recorded interactions between a single patient with aphasia and her caregivers (family or speech therapists). Video recorded data involving this patient in interaction with different caregivers allows us to more accurately analyze the interactional compensatory strategies used by caregivers and patients according to their communicative habits.

We will be particularly interested in an interactional situation between a speech therapist (Anna) with her aphasic patient (Aïcha) during a single reeducation session. We will analyze the place of gesture in this conversation. We will show how the interactional skills of the two speakers are constantly called into question, especially when the patient, is engaged in an activity of "gestural repetitions". We will see that to resolve the lack of a particular word, the patient can perform gestural representations. Through the analysis of three excerpts, we reveal that the gestural retraining of the aphasic patient is as important as her/his speech reeducation and we will show to what extent the speech therapy is essential in relearning to communicate. Our work contributes to existing linguistic and clinical research in that it focuses not only on the patient, but also on the caregiver (the speech therapist).

**Keywords:** aphasic person, gesture, missing words, interactional strategies

**Özet:** Kelime üretememeyi bir jest hareketi farkındalığı ile ortadan kaldırma sözyitimine uğramış hastaların sıklıkla kullandıkları telafi edici bir stratejidir. Ancak, bağlam ve katılımcılar arasındaki kişilerarası bilgi de doğru kelime veya jesti bulma veya tahmin etmede önemli faktörlerdendir. "Sözyitimine Uğramış Kişilerle Hastabakıcılar arasındaki Etkileşimler" projesinde, sözyitimine uğramış tek bir hasta ile onun hastabakıcıları (aile veya konuşma terapistleri) arasındaki video kayıt altına alınmış etkileşimleri incelemekteyiz. Bu hastanın farklı hastabakıcılarla etkileşimlerinin video kayıt altına alınmış verisi bizim hastabakıcılar ve hastalar tarafından kullanılan etkileşimsel telafi edici stratejilerini daha detaylı bir şekilde incelememize imkan sağlamaktadır.

Bu çalışmada, tek bir reedükasyon oturumu boyunca bir konuşma terapisti (Anna) ve onun sözyitimine uğramış hastası (Aïcha) arasındaki bir etkileşimsel duruma odaklanacağız. Bu konuşmada jestlerin yerini analiz edeceğiz. İki konuşmacının, özellikle hasta "jest tekrarları" yaptığında, etkileşimsel becerilerinin nasıl sürekli olarak sorgulandığını göstereceğiz. Belirli bir kelimenin eksikliğini ortadan kaldırmak için hastaların jest ifadelerini kullanabileceklerini göstereceğiz. Üç alıntının alanizi aracılığıyla, sözyitimine uğramış hastanın jestsel öğrenmesinin onun konuşma reedükasyonu kadar önemli olduğunu ortaya çıkaracağız ve konuşma terapisinin yeniden iletişim kurmayı öğrenmede ne derece gerekli olduğunu göstereceğiz. Bizim çalışmamız sadece hastaya değil aynı zamanda hastabakıcıya (konuşma terapistine) da odaklanarak var olan dilbilim ve klinik çalışmalarına katkı sağlamaktadır.

**Anahtar sözcükler:** sözyitimine uğramış birey, jest, eksik kelimeler, etkileşimsel stratejiler

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## 1. Introduction

After a cerebrovascular accident (CVA), people who have become aphasic will typically use more gestures in exchanges of talk to be understood. When lacking a word, this gestural compensation can take on a highly significant place in conversation (Ahlsén, 1991; Goodwin, 1995, 2006; Hadar, 1991; Klippli, 2006). In our data, for some aphasic people, we have observed that in addition to missing words, a supplemental difficulty is associating the right gesture to the right word. Therefore, we conceive the gesture reeducation work done by the speech therapist during the months (and sometimes years) following the accident as being as important as the speech reeducation work. That is why, in this paper, we propose to analyze this specific gesture reeducation done by aphasic people and their family or caregivers, particularly in interaction with the speech therapist.

In the first part of the paper, we present the research context, the data and the methodology which serves as the basis of our analysis. In the second part, we sum up a brief theoretical overview of the relationship between gestures and language in aphasic interactions starting from theoretical work on gesture, then focusing particularly on multimodal research, and ending with linguistic and clinical work done in interactions involving aphasic patients. Our aim in this paper it is not to describe in detail this non-exhaustive state of the art but rather to contextualize the analysis. Finally, we propose the analysis of three excerpts to illustrate the complex interactional work done by the participants to relearn gesture with the aim of communicating a word that cannot be verbally produced.

This research contributes to the existing linguistic and clinical research in that it focuses not only on the patient, but also on the caregiver, the speech therapist. We want to demonstrate that the gesture reeducation of the aphasic patient is as important as her/his speech reeducation and we will show how the speech therapists work is essential for the relearning of communication techniques. More generally, we will show how the interactional skills of the speakers are constantly called into question, especially when they are engaged in an activity of “gestural repetitions”.

Our research is developed from the theoretical and methodological tools of Conversational Analysis (inspired by Garfinkel’s ethnomethodology and Goffman’s conception of the participation framework) and of the Interactional Linguistics approach (exploring the grammatical and linguistic resources mobilized by the participants in the organization of interaction).

## 2. Context, data and methodology

To understand better the context of our research, here is a description of the pathology of aphasia:

“Aphasia is an impairment of language, affecting the production or comprehension of speech and the ability to read or write. Aphasia is always due to injury to the brain. (...) Aphasia can be so severe as to make communication with the patient almost impossible, or it can be very mild. It may affect mainly a single aspect of language use, such as the ability to retrieve the names of objects, or the ability to put words together into sentences, or the ability to read. (...) It is the job of the professional to determine the amount of function available in each of the channels for the comprehension of language and to assess the possibility that treatment might enhance the use of the channels that are available” (National Aphasia Association, 2015).

For our study<sup>1</sup> we filmed a series of interactions between aphasic patients and their private or professional entourage (family, friends, or speech therapists). All of these people have a caregiving role towards patients. Full details of these interactions as revealed by the audio-visual data are transcribed and used to reveal the situated production, in the time and in context, of participants' interactional practices.

In this project, we are particularly interested in investigating the interactional practices of speakers with aphasia within conversations and in helping speech therapists to broaden their views on the interactional practices of their patients, and in identifying new priorities for rehabilitation. Indeed, a detailed analysis of interactions with aphasic people can help to give more visibility to their language production skills, which are sometimes still marked by a lack of academic recognition and are considered as particularly heterogeneous practices (Morel, 2008).

Our research is a continuation of linguistics' work lead on the patient aphasic's language (especially Pascual, Nespoulos & Virbel, 1997; Nespoulos & Virbel, 2004; Goodwin, 2000; Lindsay & Wilkinson, 1999). More generally, the main objectives are:

- To study the communicational compensating practices developed by the aphasic person and by his entourage.
- To study the processes with which they construct and transmit knowledge and communication skills.
- To provide answers and additional tools for the concerns of professionals.

To achieve our goals, we have recorded some video data of one individual with aphasia in two different interactional contexts: 1) during a medical interaction; 2) during an informal interaction. These interactions take place either at home (for family meals or physiotherapy sessions) or at the speech therapist's office (only for the speech-therapy sessions). We have not yet analyzed if the geographical location has an impact or not on the interactional progression of the physiotherapy sessions<sup>2</sup>.

Therefore, the conversations of the same patient are documented in two interactional situations (medical and informal interaction), which allows us to analyze the compensatory communication strategies developed by non-aphasic speakers to accompany, assist, and support the patient in the development of an interaction.



*Aïcha & Anna during a speech therapy session  
(45')*



*Aïcha & her daughter during a meal  
(20')*

In this paper, we specifically analyze the aphasic patient Aïcha, recorded during a speech therapy session<sup>3</sup> at home with Anna (the speech therapist). The whole conversation (lasting 45

minutes) has been transcribed (using ICOR conventions<sup>4</sup>) and anonymized (i.e. all private information was changed: name, surname, phone, place, etc.; but all of the participants signed an authorization form which allows us to communicate or to publish studies based on the corpus without blurring their faces).

From a methodological perspective, we want to specify briefly some choices in our transcript conventions. Concerning the silences, the numbers in parentheses – (0.6) – indicate a timed pause in tenths of a second. A dot (or stop) in parentheses – (.) or (..) or (...) – indicates a micropause, an audible silence lasting less than 0.2 of a second. Silences and micropauses may be marked either within an utterance or between utterances. They may be analyzed as transition relevance places or not, according to the interactional context and not to their position in the turn. Moreover, we have only transcribed rising and falling intonation. Therefore, when it is not specified at the end of some turns, this is continuing intonation. An indicative translation is provided line per line (in bold), in order to help read the original.

Concerning the multimodal transcriptions, they are done from the gestural transcription conventions proposed by Mondada<sup>5</sup> (2008). We specifically chose two associated symbols for each participant: the star symbol \* represents Anna's gestures or gazes; the paragraph symbol § represents Aïcha's gestures or gazes. These symbols are used to delimit the start and end of a gesture, action or gaze simultaneously with a turn or silence. Each multimodal turn is initiated by the two surname initials of the speaker in lowercase accompanied by the letter G for gesture or R for gaze (“*regard*” in French). For example: anG for a gesture by Anna; aiR for a gaze by Aïcha.

We will analyze these data using a Conversational Analysis methodological approach, which takes into account the turn taking system as a process by which interactants allocate the right or obligation to participate in an interactional activity (Sacks, Schegloff, & Jefferson, 1974).

Before the qualitative analysis, we propose a brief theoretical overview of the relation between gestures and in aphasic interactions. This section will enable a better understanding of our theoretical approach starting from work that treats gesture, then focusing more particularly on multimodal research, and ending on linguistic and clinical work done on interactions involving aphasic patients.

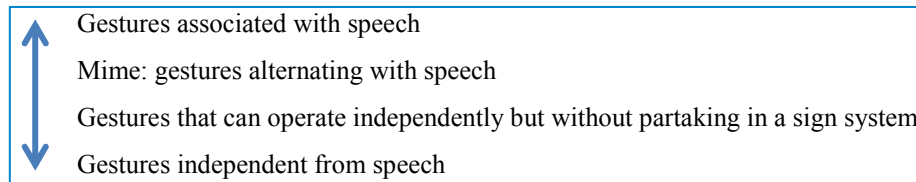
### **3. Brief theoretical overview of the relationship between gesture and talk in aphasic communication**

#### **3.1. Gesture and talk**

Firstly, in the research work on gesture, we can differentiate between three general gestural classifications, as stated by Kendon (2004:103):

- *A first classification includes considered gestures*: a distinction is made here between the gestures made with the hands and the arms in opposition to other bodily movements (with the head, the eyes, etc.) (Austin, 1806; Ekman & Friesen, 1967);
- *A second classification establishes the connection between gestures and the discourse*: this link exists, but it is nuanced between bodily expression and discourse. Efron (1941), for instance, finds a link between culture and a gesture/discourse correspondence; then McNeil (1992, 2000), from a theoretical point of view, demonstrated the relationship between thought processes and linguistic expression;
- *Finally, a third classification develops the semiotic functions of gestures*: by establishing, for example, a distinction between deictic or demonstrative gestures, imitative gestures, or expressive gestures (Cosnier & Vaysse, 1997).

The various typologies present inherent classification difficulties, such as the effective delimitation of gestures and the mutual exclusion of different categories which do not correspond to gestures as found in context (Kendon, 2004:104). In 1992, McNeill proposed that gestures could be arranged along a continuum called “Kendon’s continuum”. We sum up this continuum with the following illustration:



*Figure 1: Kendon's continuum*

In this paper, we consider gestures to be a resource just like language to interact and perform daily actions.

### **3.2. Gestures, multimodality and language**

When we focus on gesture-based research, it is also important to consider multimodal research using Conversation Analysis to examine video recordings. Indeed, Lorenza Mondada (2014: 139) explains clearly in her recent paper on “the local constitution of multimodal resources for social interaction” that “human action is fundamentally multimodal”. Moreover, she evokes several respects of the notion of ‘resource’. She proposes three considerations for the ‘resource’ notion (i.e. multimodal resource), which allows one:

“i) to treat linguistic and embodied resources in principle in the same way, without prioritizing a priori one type of resource over other ones; ii) to identify not only conventionalized sets of resources, as grammar and some types of gesture, but also situatedly occasioned and assembled resources; iii) to study how resources are combined together in various configurations, depending on the activity, its ecology and its material and cultural constraints.”(Mondada, 2014: 139)

Therefore, when we want to analyze the relation between gestures and talk, it is also important to consider how the participants synchronize the various resources available according to the ongoing activity:

“In some human activities, language plays a crucial role, while in other activities other resources are privileged: thus, the prioritization of one resource over the other is not a matter that can be decided in a principled way, but an empirical issue that depends on the type of situated activity and on the way in which participants format it.” (Mondada, 2014: 139)

### **3.3. Gestures, multimodality and language in aphasic communication**

Studies using Conversation Analysis to examine interactions involving aphasic people have uncovered several interactional practices used by people with brain injuries and have closely considered their relevance for communication. But only a small portion of this research has explored multimodality to assess the aphasic person’s communication practices.

More precisely, we present in this paper a work in progress on the place of gesture when a word is lacking, within the context of conversations between an aphasic patient and a speech

therapist. In several pieces of interactional research on aphasic communication, we can read that some aphasic people will use more gestures (Auer & Bauer, 2011) to switch and maintain the exchange; and when a word is missing, gestures can take on an even more important role (Ahlsén, 1991; Goodwin, 1995, 2006; Hadar, 1991; Klippli, 2005).

Finally, from a clinical perspective (speech therapy, etc.) Ballandras (2010: 62, 65-66) explains that the use of gesture has been little studied in real situations. On the relation between linguistic impairments and gestural disorders, no consensus was reached among the authors (works of Nespoulos, 1979 vs Labourel, 1982). It seems that for aphasic patients with no associated motor or praxis disabilities, this communication form is an interesting way to transmit information especially in communication situations linked to the concrete activities of daily life (Nespoulos, 1979). According to some authors, there would exist a parallel impairment of gesture and verbal production (Daviet & al., 2007). Afterwards, this view was nuanced showing that this correlation between gestural and verbal disorders is not always observable (Daviet & al., 2007).

We agree that it is impossible to make generalization of the gestural augmentation by all the aphasic people, but as Charles Goodwin says:

“Gesture as meaningful action is accomplished not by a speaker’s hand alone, but instead through the relevant juxtaposition of a range of different kinds of semiotic materials which mutually elaborate each other” (2000:84).

Therefore, all kind of gestures produced by an aphasic person in interaction with a private or professional communication partner can be potentially co-interpreted by the co-participants to ensure the mutual understanding of the exchange. That is why, through our analysis, we seek to explicate the importance of the speech therapist’s work as she tries to work with an aphasic patient who is very limited in verbal production, teaching the patient to relearn to communicate using gesture when she is lacking specific words.

Before presenting the qualitative analysis' results we would like to explain why we chose the verb “to mime” used in the multimodal transcription and in the analysis. If we look up the meaning of this verb in the usual language, we find these definitions:

“To mime is express by gesture, by the physiognomy play without speaking the someone's attitudes, feelings, action; It is counterfeit, imitate in a pleasant manner the air, gestures and ways of someone” (Larousse, 2015).

“To mime is imitate gestures, attitudes, facial expressions, except for the speech” (CNRTL, 2015).

In this paper, we will use the verb "to mime" in its current meaning. Beyond these definitions that seem relevant for us, it is important to specify that, in our data, it is precisely the verb employed by the speech therapist during a rehabilitation work session between the speech therapist and the aphasic patient (cf. analysis of the excerpt 1).

#### **4. Relearning to communicate by gesture**

To resolve the lack of a word, the patient has the possibility of performing gestural representations. From three video excerpts, we reveal that the gesture reeducation of the aphasic patient is as important as her/his speech reeducation and we prove that the speech

therapist's work is essential in relearning to communicate effectively. More generally, we show how the interactional skills of the speakers are constantly called into question, especially when they are engaged in an activity of "gestural repetitions".

In a first excerpt, we want to underline our choice to use the specific verb "to mime" in our analysis and the multimodal descriptions. This first excerpt also allows for a better understanding of the aims of the particular kind of exercise realized in rehabilitation work. It is analyzed in more detail in the following two excerpts. The aim of the exercise proposed by the speech therapist is precisely to reproduce by gestures the action drawn on a picture. In a more complex second excerpt, we analyze the difficulties encountered by the patient to identify the action drawn on a picture. And in the final excerpt, we show that the realization of the gesture can also be more efficient for the patient (in contrast with the second excerpt). We make the hypothesis that the kind of action/object drawn on the picture can have an impact on the difficulty of reproducing the gesture.

*Excerpt 1: "Say with the hands"*

In this first excerpt, we are at the end of a speech therapy session between Anna and Aïcha. The speech therapist proposes a final exercise with the aim of using gesture to reproduce an action drawn on a picture. To contextualize the situation, a few seconds before this excerpt, the aphasic patient demonstrated a type of a logorrhea which distracts her. This unusual moment is topicalized by the participants. To refocus Aïcha on the current activity, Anna explains why they are taking the time to do this kind of exercise and she herself uses the verb "to mime" to explain the purpose of the exercise, and this is the notion that particularly interested us in this excerpt.

(00:39:30)

1 AIC \$\*oula [<((rire)) (2.5)> ]  
           **oula** [<((laughs)) (2.5)> ]  
 aiR \$looking at Anna-->9  
 anR \*looking at Aïcha-->26



img 1  
 2 ANN [regardez \*<((rire)) (0.8)> regardez-moi]  
           **[look <((laughs)) (0.8)> look at me ]**  
 anG \*puts her hand on Aïcha's hand

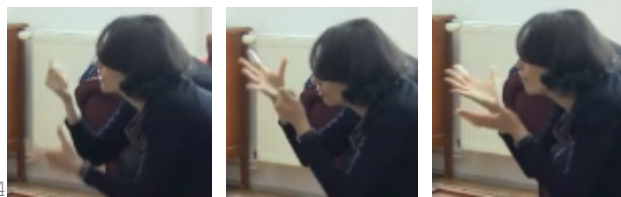


img 2  
 3 (1.0)  
 4 ANN si vous pouvez pas \*le di:re/ avec la bouche \*  
           **if you can't say it with the mouth**  
 anG \*mimes act of speaking with her index finger\*





img 3  
 5 (0.5)  
 6 AIC ah [oui]  
**ah [yes]**  
 7 ANN [il ] \*faut essayer de le di:re/ avec les mains\*  
**[it ] must try to say it with the hands**  
 anG \*moves both hands \*



img 4  
 8 \*(1.0)  
 anG \*holds their hands open-->10  
 9 AIC \$ah:::\ \$  
**ah**  
 aiR \$looking down\$  
 10 \$kel kel èm sa è (0.2) \*[é ne kol ]  
**kel kel èm sa è (0.2) [é ne kol ]**  
 aiR \$looking at Anna-->16  
 anG -->\*  
 11 ANN \*[d'accord de] mimer les choses montrer:  
**[right to ] mime the things to show**  
 anG \*moves both hands-->12



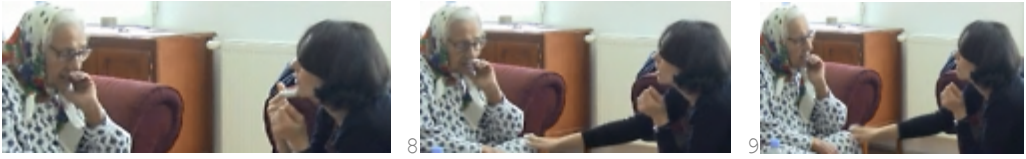
img 5  
 12 (0.5) faire les gestes\*  
**to make the gestures**  
 anG -->\*



img 6  
 13 \*(0.3)  
 anG \*holds their hands open-->14  
 14 AIC hm hm  
**hm hm**  
 15 ANN d'accord/\*  
**right**  
 anG -->\*19  
 16 \$(0.2)  
 aiR \$looking down-->19  
 17 AIC oui:  
**yes**  
 18 (.)  
 19 ANN \*comme ça- (1.0) \*madame \$kiala \*  
**like this (1.0) madam kiala**




\*pointing to her mouth \*puts her hand on Aïcha's knee\*  
 aiR -->§looking at Anna-->26



img 7 8 9

20 AIC ko sè [lel ]  
 ko sè [lel ]

21 ANN \*[comme] c'est difficile (0.7) [avec] (.) §[la parole ]\*  
 [as ] **it's difficult (0.7) [with] (.) [language ]**  
 anG \*mimes act of speaking with her index finger \*  
 aiR §looking outside



img 10 11 12

22 AIC [xxx ] x [xx ]  
 [xxx ] x [xx ]

23 \*(0.4) [x x x: ] (inaud.)  
 [x x x: ] (**inaudible**)


anG \*joined hands-->26

24 ANN [c'est difficile\  
 [it's difficult ]

25 (0.5)

26 ANN \*donc on essaye de\* travailler un petit peu \*les gestes \*  
**so we try to work a little the gestures**

anR \*looking pictures \*looking at Aïcha-->>  
 anG \*showing pictures with right hand \*moves both hands\*



img 11

28 (0.5)

29 AIC hm:  
**hm**

30 (..)

31 ANN d'accord/  
**right**

(00:40:03)

At line 1, Aïcha is laughing at the end of her turn , overlapping Anna's turn (line 2) in which she produces the repeated injunction “look <((laughter)) (0.8)> look at me”. This repetition is due to the reciprocal gaze adjustment (cf. image 1) done by the hand gesture of Anna on Aïcha's hand (cf. image 2). In fact, Anna does not wait for Aïcha to look at her. Instead, Anna she waits for Aïcha to stop speaking and listens to her. Indeed, even the participants' gazes have been reciprocal since the beginning of the excerpt. Anna wants to obtain the complete attention of Aïcha in order to successfully achieve the aims of the exercise.

After a long 1-second silence of (line 3), Anna exposes the aims of the exercise in three turns:

- Line 4: “if you can't say it with the mouth”
- Line 7: “we must try to say it with the hands”
- Lines 11-12: “right to mime the things to show (0.5) to make the gestures”

We observe that all of the three turns are accompanied by gestures, and have the same sequential structure with Aïcha's reactions: Anna's turn + silence + Aïcha's reaction.

From line 4, Anna produces her first turn simultaneously with the action of miming the act of speaking with her index finger (cf. image 3). After a short 0.5 second silence (line 5), Aïcha validates (line 6) the first turn of Anna saying "*ah yes*".

From line 7, Anna produces her second turn "*it must try to say it with the hands*" in overlapping of the end of turn of Aïcha. This second turn is simultaneous with the action of moving both hands (cf. image 4). After a long 1-second silence (line 8) during which Anna holds her hands open, Aïcha expresses a highly lengthened exclamation mark (line 9) in which she shifts her gaze downward. Line 10, Aïcha is looking once again at Anna and simultaneously produces an unintelligible utterance in reaction to Anna's second turn.

From lines 11-12, Anna produces her third turn "*right to mime the things to show (0.5) to make the gestures*" by overlapping the end of Aïcha's turn. This third turn is simultaneous with the same action as before (line 7), i.e. moving both hands (cf. images 5 and 6). After a short silence of 0.3 seconds (line 13) in which Anna holds their hands open, Aïcha validates this third turn of Anna by a continuer "*hm hm*" (line 14).

From line 15, Anna initiates a first pair part of an adjacency pair "*right*" which projects the second pair part "*yes*" (line 17) produced by Aïcha after a short silence of 0.2 seconds (line 16). From this silence, Aïcha modifies the orientation of her gaze by looking downwards (to the end of the line 19). This adjacency pair can be considered a pre-closure of the explanation sequence of the exercise aims.

From line 19, Anna adds a post-sequence to her explanation, pointing to her mouth simultaneously with her interrupted turn "*like this*". She interrupts herself because Aïcha is no longer focused on her explanation, and is instead looking downwards (cf. image 7). Anna waits one second before explicitly addressing the patient by an address term "*madam kiala*" (line 19) simultaneously with the action of putting her hand on Aïcha's knee (cf. image 8). At this moment, Aïcha aligns once again her gaze with Anna's and makes into account her availability for the following interaction (cf. image 9). Line 20, she produces an unintelligible utterance to potentially confirm verbally her availability in the exchange.

From line 21, Anna partially repeats her initial turn and reformulates the aims of the exercise during two turns:

- Lines 21;24: "as it's difficult (0.7) with the speech" "it's difficult"
- Line 27: "so we try to work a little the gestures"

Like the previous sequence, we observe that both of Anna's turns are accompanied by gestures, and have the same sequential structure with Aïcha's reactions: Anna's turn + silence + Aïcha's reaction.

From line 21, Anna produces her first turn by overlapping the end of Aïcha's turn simultaneously with the action of miming with her index finger the act of speaking (cf. image 10). Line 22, Aïcha overlaps the end of Anna's turn by an unintelligible utterance. A short silence of 0.4 seconds (line 23) is treated by the speech therapist as a transition relevance

place (and she completes her previous turn by the repetition of the information “*it’s difficult*” (line 24). However, Aïcha has not finished her utterance and once again, there is an overlap between the two participants.

From line 25, Anna treats the short silence of 0.5 seconds as a transition relevance place and she produces her second reformulation turn (line 26) simultaneously with: a) in a first step, the action of showing the pictures on the table with her right hand (cf. image 11); b) and in a second step, the action of moving both hands (on the words “*the gestures*” at the end of the utterance). Line 28, the short silence of 0.5 seconds is treated this time as a transition relevance place by Aïcha, who validates Anna’s reformulation by a brief mark of alignment “*hm:*” (line 29). This sequence of explanation is closed by an assertive question “*right?*” (line 31) produced by Anna.

In this first excerpt, we were interested in analyzing the instructions explained by the speech therapist to the aphasic patient. It allows us to show the importance: i) of her instructions in establishing a clear common working environment; ii) of her gestures in accompanying her verbal instructions (miming with her index finger the act of speaking (line 4, 21); moving both hands (lines 7, 11-12, 26)); and iii) of the meaningful correlation between the gesture and the verbal instruction (“*with the mouth*” (line 4) and “*with language*” (line 21) miming act of speaking; “*with the hands*” (line 7); “*to mime the things, to show, to make the gestures*” (lines 11-12) and “*to work a little the gestures*” (line 26) moving both hands (line 11-12). Therefore, the speech therapist tries to explain as clearly as possible the aims of the exercise to the patient.

However, it’s difficult to measure the level of understanding of the aphasic person through her intelligible responses (“*hm hm*” line 14, “*yes*” line 17 and “*hm*” line 29) or her visual reactions (only gaze reorientations in the direction of the speech therapist, downwards or towards the outside). Even if the speech therapist ensures that the patient’s attention is complete, it is not clear that the transmission of the information was completely understood by the patient, as we will see in the second excerpt.

This first excerpt allowed us to account explicitly for the speech therapist’s expectations in her gesture reeducation work with the aphasic patient. In the two following excerpts, we want to focus on how difficult this work is for the patient, on the one hand, and for the speech therapist, on the other hand, which does not seem self-evident when the pathology also affects the meaning of word for the patient.

*Excerpt 2: “I just ask you to make the gesture”*

This second excerpt lasts 47 seconds. The speech therapist is engaged in the same exercise whose aim was explained in the excerpt 1. This second excerpt allows us to analyze the difficulties encountered by the patient in identifying the action drawn on a picture that she must reproduce with gestures. It shows us also the several strategies mobilized by the speech therapist to help the patient in her search for the expected gesture.

(00:37:30)

1 AIC [oui:]  
[yes ]  
2 ANN [oui/] (0.2) \$\*et puis lui comment il fait lui  
[yes ] (0.2) and then him how does he do it him  
aiR \$looking at the selected picture-->8  
anG \*pointing to a specific picture on the table-->



img

3 (0.7)\*  
anG -->\*  
4 ANN \*\$comm[ent il est lui]\*  
ho[w he is him]  
anG \*withdrawing her hand \*  
aiG \$moving her hand forward and pointing to the selected picture-->7



img

5 AIC [la la ] (0.2) sé mé la tien dit (0.4) el a dit ko te le  
[la la ] (0.2) sé mé la tien say (0.4) el a say ko te le  
6 a a a a a o lo lo fa é ta (0.5) za ta bla (0.4) ni tsa: (0.5) et ça  
a a a a a o lo lo fa é ta (0.5) za ta bla (0.4) ni tsa: (0.5) et ça  
7 (0.4) et ça ten\$  
(0.4) and this ten  
aiG -->\$

8 \$(0.3)  
aiR \$looking at Anna-->10  
9 ANN alors comment vous faites (...) \*allez-y\ (.)  
so how do you do (...) go on (.)  
anG \*pointing to Aicha



img

10 \*avec les mains\ (0.3)\$ \* [comment vous faites/]  
with the hands (0.3) [how you do it ]  
anG \*raises both hands in the air\*  
aiR -->\$looking at the picture-->20



img

11 AIC \$[a ba da ] ba da/  
[a ba da ] ba da/  
aiG \$turns her open right hand-->



img

12 (0.4) \$[(inaud.) ] \$  
[(inaudible) ]

aiG -->\$pointing her right hand at the picture\$



img 8

13 ANN [<((rire)) (2.0)> ]  
 [<((laughs)) (2.0)>]

14 (0.2)  
 (0.2)

15 ANN non \*j` vous demande pas d` courir comme lui/ (0.3) j` vous demande  
 no I'm not asking you to run like him/ (0.3) I'm just asking you

anG \*pointing to the picture-->



img 9

16 juste de faire le geste (1.3) comment il fait/ quand il a\* gagné/  
 to make the gesture (1.3) how does he do/ when he won/

anG -->\*

17 \$(...) \*[regardez]  
 (...) [look ]

aiG \$pointing her right finger at the picture-->20

18 AIC [ah: ] ta ba  
 [ah: ] ta ba

anG \*raises both hands in the air-->20

19 (0.7)

20 ANN madame kiala\$ \*\$(2.0) comme [ça ] \*  
 madam kiala (2.0) like [this]

aiG -->\$

aiR \$looking at Anna-->

anG -->\*\$shakes arms in the air\*




img 10 11

21 AIC [ah:] \$ben mo to  
 [ah:] ben mo to

aiR -->\$looking at the picture-->

22 (0.4)

23 ANN allez-y (0.2) faites le  
 go on (0.2) do it

24 (1.4)

25 AIC \$i` va  
 he goes

aiG \$opens her right hand-->27




img 12

26 (0.2)


27 ANN essayez\$ de le [faire]  
 try to do [it ]

aiG -->\$pointing to the picture-->29

img 13 


28 AIC [ah ] xxx x: \*\*xx  
[ah ] xxx x: xx

anG \*puts her right hand on Aicha's arm-->  
anG \*removes picture with her left hand-->

img 14 

29 ANN madame kiala\$ \*\*essayez de le faire pareil  
madam kiala try to do the same thing


aiR -->\$looking at Anna-->  
anG -->\*\*raises both hands in the air-->32

img 15 


30 (0.6)

31 AIC \$ah: kal ba [ta: ] ah:  
ah: kal ba [ta: ] ah:

aiG \$raises both hands in the air-->33

img 16 

32 ANN [voilà]\*  
[this ]  
anG -->\*

img 17 


33 ANN très bien\$  
very good

aiG -->\$

34 (0.6)

35 AIC ouais [ouais ] ouais  
yeah [yeah ] yeah

36 ANN [pareil \*comme ça]  
[same as this ]  
anG \*raises both hands in the air-->38

img 18 

37 \$(0.2)

aiG \$raises both hands in the air-->40



```

img      19
38 ANN  okay/*
        okay/
anG      -->*
39 AIC  ah i euh
        ah i euh
40      (0.2)§
aiG      -->§

img      20
41 ANN  $très bien
        very good
aiR      $looking at the pictures on the table
(00:38:17)
    
```

At lines 1-2, Anna and Aïcha have closed the previous action linked to the exercise by an assertive “yes” in overlap. After a short silence of 0.2 seconds, Anna initiates the search for the gesture corresponding to the next picture by an interrogative turn “*and then him how he does he do it, him*” (line 2). Simultaneously, she is pointing to a specific picture on the table (cf. image 1). She maintains her gesture up to the end of the long silence of 0.7 seconds (line 3) which can be analyzed as a transition relevance place allowing Aïcha to do the action drawn on the picture.

At line 4, seeing that the transition relevance place is not taken by the patient, Anna, again, takes her speech turn and reformulates her interrogative question by “*how is he him*”, indicating otherwise – with a syntactic difference (“*he does he do it, him*” vs “*how is he, him*”) – the posture to reproduce on the picture. At the same time, Anna withdraws her finger from the picture whereas Aïcha moves her hand forward and points toward the selected picture (cf. images 2 at 4). The pointing gesture of Aïcha will last up to the end of her long unintelligible turn of speech (lines 5-7). From the beginning of this excerpt, Aïcha is looking at the picture situated on the table.

At the line 8, during a short silence of 0.3 seconds, the patient modifies the orientation of her gaze toward the speech therapist up to the line 10. The gesture has not yet been done by Aïcha, so Anna takes this transition relevance place to reformulate again her request, in a complex turn of speech (lines 9-10) composed by four turn constructional units (TCU) (Sacks, Schegloff & Jefferson, 1974).

- **First TCU:** This time, Anna does not ask how *the character* is drawn on the picture, but how *she (i.e. the patient)* does this gesture, this action (“*how do you do*”, line 9);
- **Second TCU:** She continues her turn after a micro pause by an imperative utterance “*go on*” in parallel with a pointing gesture toward Aïcha (cf. image 5);
- **Third TCU:** After another micro pause, Anna goes on giving a double advice i.e. the verbal information “*with the hands*” (line 10), simultaneously with the non-verbal action of raising both opened hands in the air (cf. image 6). This action indicates to Aïcha that she must use her hands to respond to the request.



- **Fourth TCU:** After a last micro pause, Anna concludes her turn by a repetition of the first TCU “*how do you do?*”. At this time, Aïcha is looking again at the picture up to the line 19.

At line 11, Aïcha is overlapping the end of the Anna’s turn and; at the same moment; she turns her open right hand toward the table (cf. image 7). After a short silence of 0.4 seconds, she produces an unintelligible turn in parallel with the gesture of her right hand pointing at the picture (cf. image 8). Anna overlaps the end of Aïcha’s turn by a long laugh lasting two seconds.

After a short silence of 0.2 seconds (line 14), Anna takes her turn and makes accountable an interpretation of the long unintelligible turn of Aïcha, and more generally of the unrealized action. Indeed, in a first TCU line 15, where she says “*No I am not asking you to run like him?*”, she displays her understanding of Aïcha’s reaction. Retrospectively, Aïcha’s turn (line 12) is unintelligible lexically, but it is not problematic from a comprehension point of view since it is taken into account by the speech therapist in the ongoing activity. At the same time, Anna points again at the picture up to the end of the line 16 (cf. image 9). After a short silence of 0.3 seconds, she again makes explicit her request by saying “*I’m just asking you to make the gesture?*” (lines 15-16).

Anna leaves a long silence of 1.3 seconds, allowing Aïcha to understand the request. After this pause, she reformulates a last time her interrogative question, focalizing again on the character drawn on the picture “*how does he do/ when he won?*” (line 16). To help Aïcha, she gives more information by naming the action (“*won?*”).

After a micro pause (line 17), Anna concludes her long turn by the imperative utterance “*look?*” in simultaneously with the action of raising both hands in the air. At the same time, Aïcha overlaps the end of Anna’s turn (line 18) and she is again pointing her right finger at the picture without gazing at her interlocutor. We can observe a difference between the two actions “*raise both hands in the air?*” done by the speech therapist. Indeed, the first time, she keeps her hands opened (cf. image 6) whereas the second time, she has her hands closed (cf. image 10).



Image 6: “*with the hands?*”



Image 10: “*look?*”

The action of Anna projects another action in her next turn. Indeed, the participant’s gazes are not mutually aligned and Anna makes visible the necessity of having the patient’s attention for the rest of the interaction.

After a long silence of 0.7 seconds (line 19), Aïcha is not looking at Anna despite her imperative utterance, therefore Anna maintains her gesture and produces an explicit term of address “*madam kiala?*” (line 20). At the end of this solicitation, Aïcha stops her pointing gesture and looks at Anna (cf. images 10-11), whereas Anna initiates her action by shaking her arms in the air three times after a long silence of two seconds. This action is realized simultaneously with the utterance “*like this?*”.

At line 21, Aïcha overlaps the end of Anna's turn and reorients her gaze on the picture. After a short silence of 0.4 seconds (line 22), the patient is supported by the speech therapist, who produces four successive utterances like "go on", "do it", "try to do it", "madam kiala try to do the same" (between the lines 23-29). Aïcha initiates an opened hand gesture (cf. image 12, line 25), after a long silence of 1.4 seconds, and simultaneously with a pre-utterance "he goes" but she stops her turn of speech.

During the encouragement turn of Anna (line 27), Aïcha is pointing again to the picture (cf. image 13) and she overlaps (line 28) the end of the previous turn.

At the end of the Aïcha's overlapped turn (line 28), Anna puts her right hand on the Aïcha arm and simultaneously, she removes the picture with her left hand (cf. image 14). Retrospectively we can analyze the Anna's gesture like an action which projects another action, to refocus the patient's attention on the current activity and to initiate a new help sequence. Seeing that the patient cannot perform the required gesture, the speech therapist tries to give last 'scaffolding'<sup>6</sup> (Bruner, 1978; Vasseur, 1993) to help her interlocutor.

At line 29, we can observe Anna producing another address term "madam kiala" which allows her to attract Aïcha's attention, and in response to this solicitation, Aïcha modifies the orientation of her gaze and orients it toward Anna up to the end of the excerpt. After having obtained the complete attention of the patient with a mutual gaze, Anna does the corresponding action, that is, she raises both hands in the air (i.e. the same action as line 10) simultaneously with her encouragement utterance "try to do the same" (cf. image 15).

After a silence of 0.6 seconds (line 30), Aïcha finally does the required gesture of raising both hands in the air (cf. image 16), simultaneously with an unintelligible turn (line 31). At this moment, the two participants are aligned on the achievement of the gesture and Anna expresses the success of Aïcha by a positive evaluation "this" in overlap on the end of her previous turn (line 32). Her validation turn is accompanied by the end of her own gesture, while Aïcha maintains it (cf. image 17).

At line 33, Anna produces a second positive evaluation "very good", while Aïcha finishes her action. After a silence of 0.6 seconds (line 34), Aïcha expresses a feedback utterance, repeating three times the affirmative word "yeah yeah yeah" (line 35). In overlap of this turn, Anna repeats the encouragement utterance "same as this" (line 36) and simultaneously, she repeats again the same action, that is, she raises both hands in the air (cf. image 18).

Immediately after the repeated action of Anna, the patient repeats also the same gesture as Anna during the short silence of 0.2 seconds (cf. image 19, line 37) and we can observe the a situation similar to the previous one, where the two participants are aligned on the achievement of the gesture. Once the gesture is successfully reproduced by the patient, the speech therapist validates it positively ("okay" line 38) and stops her own gesture at the same time. Aïcha produces an unintelligible turn (line 39) and after a short silence of 0.2 seconds (line 40), she stops also her gesture (cf. image 20).

Anna concludes this sequence by a final positive evaluation "very good" addressed to the patient (line 41) while Aïcha is looking again at the pictures on the table.

Through this analysis, we can conclude that this second excerpt, interestingly, demonstrates the progressive work established by the speech therapist to enable the patient to accomplish a specific action despite the cognitive, linguistic and comprehension barriers. To sum up, we

can divide this excerpt into four sequences according to number of failed or achieved attempts:


- Lines 1-16: a first failed attempt where Anna produces several requests as “and then him *how* does he do it him” (line 2); “no I’m not asking you to run like him/ (0.3) I’m just asking you to make the gesture (1.3) how he does he do/ when he won/” (lines 15-16) aligned to pointing gestures (toward the picture or the patient). She mimes the action drawn on the picture with a mutual gaze between the participants and saying “with the hands” (line 10), while Aïcha is just pointing toward the picture and looking at her. At this time, she does not reproduce the expected action.
- Lines 17-27: a second failed attempt where Anna produces several requests such as “look” and “*madam kiala*” (lines 17, 20) this time aligned to hand gestures. Then she mimes the action drawn on the picture (i.e. shaking her arms) with a mutual gaze between the participants and saying “*like this*” (line 20). Before and after the mime of Anna, Aïcha is looking toward the picture.
- Lines 28-34: a first achieved attempt, where Anna removes the picture on the table to isolate this element seems disturbing for Aïcha (line 28). Then, she produces an explicit address request (“*madam kiala try to do the same*” line 29) aligned to the mime gesture of the drawn action while Aïcha has restored her attention to Anna. Aïcha manages to realize the expected gesture (line 31) and Anna validates positively two times (lines 32-33) the successful action done by Aïcha.
- Lines 35-41: a second achieved attempt, which can be analyzed as a verification sequence by repetition of the previous sequence. Indeed, the interactional structure is the same as the first achieved attempt (lines 28-34) and by this repetition, Anna verifies the good understanding of Aïcha in the realization of the gesture linked to the picture.



Thereby, the verbal requests, pointing/hand gesture by the speech therapist and mutual gaze between the participants contribute mostly to making this aphasic person learn or to reproduce an action / gesture. But we can see that the patient’s attention is easily diverted by something else and the speech therapist work is also to determine the elements which seem disturbing for the patient. In this case, despite the different new strategies at every attempt (addition of address terms “*madam kiala*” for example), the speech therapist determines rapidly (after only two attempts) that the patient’s attention was diverted by the picture on the table (she is pointing several times toward the picture). To successfully accomplish the ongoing exercise and to refocus the patient on the realization of the expected action, the speech therapist tries the successful solution of removing the picture from the table (line 28).


In a last excerpt, we analyze another example of the same exercise but we want to show that with the same aphasic patient, the realization of the gesture by the patient can be also more efficient (at variance with the previous excerpt). This third excerpt is also interesting because the beginning of the next task (i.e. realization of a gesture from a picture) is this time not initiated by the speech therapist (as it usually is), but it is initiated by a non-verbal action of the aphasic patient which modifies the opening of the sequence.


*Excerpt 3: “How do you do this one”*

(00:40:04)


1        SS(0.6)  
 aiG     \$pointing to a specific picture on the left -->8  
 aiR     \$looking at picture on the left -->6  
 img 1 

2        AIC    la: la ma ni  
 3        (..)  
 4        ANN    \*alors comment vous l- (0.3) \*celui-là si vous voulez  
           so     how     you it- (0.3)  this one if you want  
 anR     \*pointing to a picture right   \*pointing to the Aïcha's picture left-->6  
 img 2       img 3 


5        ANN    \$[comment vous] faites \*celui-là\$  
           [how do you     ] do         this one  
 aiR     \$looking at Anna                        \$  
 anG     -->\*miming the phone with her right hand-->8  
 img 4 

6        AIC    [ouais ouais ]  
           [yeah     yeah]  
 7        \$(0.8)  
 aiR     \$looking at picture on the left-->9  
 8        AIC    é ne fa\$\* ta a si té c'est [téléphone        ] x [téléphone]\$  
           é ne fa ta a si té it's [phone            ] x [phone     ]  
 aiG     -->\$raises slightly her left hand                        \$  
 anG     -->\*holds and accompanies Aïcha's left hand-->9  
 img 5 

9        ANN                                     [avec les mains]\$ [ le télé]phone\\*  
   [with the hands] [ the pho]ne\  
 aiR   -->\$looking at Anna-->14  
 anG   -->\*


10        \$comment vous faites  
           how     you do  
 aiG     \$puts her left hand opened on her cheek-->12  
 img 6 


11        AIC    ah:: [ah ]  
           ah:: [ah ]  
 12        ANN    \*[non] pas comme ça le         téléph\*[one     ]  
           [no ] not like this the             pho[ne     ]  
 anG     \*puts her hand opened on her cheek\*miming phone with her hand-->14  
           \*head negation movements                        \*

img 7 

13 AIC [ah ah ]  
[ah ah ]

14 AIC \$(0.2) \*\$ah (..) le téléphone/  
(0.2) ah (..) the phone/  
aiR \$looking at the picture-->20  
anG -->\*  
aiG \$sputs her left hand opened on her ear-->17

img 8 

img 9 

14 (.)  
15 ANN voi:là:  
this:  
16 (..)  
17 AIC c'est allo:\$  
it's hello:  
aiG -->\$  
18 ANN hm (0.2) al[lo/] (.) [oui c'est bien ]  
hm (0.2) al[lo/] (.) [yes that's good]  
19 AIC [x x] [allo: ]  
[x x] [allo: ]  
20 \$(0.9) \$  
aiR \$looking at Anna\$  
21 ANN okay  
okay  
(00:40:22)

This third excerpt begins when the aphasic patient is pointing and looking at a specific picture on the left side of the table (cf. image 1, line 1). After an unintelligible turn by Aïcha (line 2) and a micro pause (line 3), Anna initiates the next task by asking Aïcha to do the action/gesture drawn on a picture by “*so how do you it- (0.3)*” (line 4). At the same time, she is pointing to a right hand picture (cf. image 2). Anna interrupts her initial turn because she has noticed the patient is pointing to another picture and she maintains her pointing gesture to this specific left hand picture. A rapid adjustment is operated by the speech therapist to align itself with the patient. After a short silence of 0.3 seconds, Anna validates the picture choice of Aïcha “*this one if you want*” and she adjusts also her pointing gesture reorienting her own gesture to the left hand picture selected by the patient (cf. image 3).

At line 5, Anna reformulates her initial request by specifying the picture selected by Aïcha “*how do you do this one*”. At the same time, Aïcha is looking at Anna and she overlaps the beginning of her turn by an affirmative turn “*yeah yeah*” (line 6). At the end of Anna’s turn, the speech therapist mimes the phone action by putting her right hand near her ear (cf. image 4).

At line 7, during a long silence of 0.8 seconds, Aïcha looks at the picture on the left and initiates a partially unintelligible turn (line 8) where only the word “*phone*” is comprehensible. At the same time, Aïcha slightly raises her left hand and Anna holds and accompanies the hand of Aïcha (cf. image 5). In overlap (line 9), Anna indicates to Aïcha to realize the action “*with the hands*” and repeats the target word identified by the patient in her turn “*the phone*”. The Anna’s gesture extends to the end of her turn’s overlap.

At line 10, Anna closes her turn of speech by making explicit her request “*how do you do*”, with a left dislocation of the referent term “*the phone*” in the previous TCU. At the same time, Aïcha puts her left hand opened on her cheek, responding to Anna’s request (cf. image 6). She produces the expressive turn “*ah:: ah*” (line 11) accompanying her gesture. This expressive turn indicates a potential understanding from Aïcha. However, in overlap at the end of Aïcha’s turn, Anna unvalidates Aïcha’s gesture by three interactional ways (line 12): a) verbally with the utterance “*no not like this the phone*”; b) gesturally with the head negation movements; and c) gesturally with the same gesture as Aïcha i.e. putting her hand opened on her cheek (cf. image 7).

At the end of her turn, Anna mimes again the successful gesture to reproduce by putting her hand near her ear (cf. image 8). Aïcha overlaps the end of the Anna turn and produces again the expressive turn “*ah ah*” (line 13). Immediately, she looks again to the picture and after a short silence of 0.2 seconds, she says “*ah (...) the phone*” and simultaneously, she puts her left hand opened on her ear (cf. image 9).

After a micro pause (line 14), Anna validates positively the successful gesture realized by the patient and Aïcha ends her gesture simultaneously with her turn “*it’s hello:*” (line 17).

The speech therapist closes the sequence by a repetition of the target word “*allo*” previously pronounced by the patient and by a second positive validation “*yes that’s good*” (line 18) addressed to Aïcha. After a long silence of 0.9 seconds (line 20), Anna closes the sequence by saying “*okay*” (line 21).

In this last excerpt, we have seen that the patient can be more efficient in the realization of the expected gesture. Here, the drawn action/gesture was a phone, so seemingly the action of calling. We can make the hypothesis that the kind of action/object drawn on the picture can have an impact on how easy it is to reproduce the gesture, and in this case, the picture was chosen by the patient herself. Therefore, she oriented her choice through an action/object easy to realize, an action/object which she already knew.

However, even if the action/object might be easy to realize, we have observed that the speech therapist work is to accompany, to help, to lead the patient in her realization of the gesture. Here, the speech therapist work was to show a first time the expected action (line 5) and to thus help the patient in her realization of the gesture. Thereby, the patient oriented a first time her hand on her cheek (which is not the expected gesture) and the trajectory of her hand was readjusted in collaboration with the speech therapist who showed the expected action a second time (line 12).

## 5. Conclusion

To conclude, we have seen that gesture in interaction varies according to the participant. On the one hand, we have the aphasic patient who, in these excerpts, accomplished only two kinds of gestures: a) pointing gestures (with the hand or the finger), and b) the required gestures at the end of the two last excerpts. On the other hand, we have the speech therapist, who did different gestures (pointing gestures, hand gestures to mime the action/object) to help the aphasic patient in her realization of the expected gesture.

In this specific activity, the participant’s roles are clearly identified: the speech therapist drives the interaction and the patient tries to accomplish the requests. In order to obtain this result, we have seen different strategies mobilized by the speech therapist to perform the aims

of a specific exercise. Even if the instructions are the most explicit for the patient, the speech therapist needs to use some verbal and non-verbal interactional resources to lead the aphasic patient to the given objective i.e. to realize the expected gesture. Thereby, we have observed the speech therapist use:

- address terms associated sometimes to a hand gesture (on her hand or her knee);
- repetitions and reformulations of the request
- mimes of the expected gesture
- repetitions of the expected gesture

As shown some research done by Goodwin (2000, 2003), Argyle & Cook (1976), Lerner (1993), Rossano (2012, 2013) and Levinson & Holler (2014), we have observed the speech therapist pay attention to the orientation of the aphasic patient gaze. Indeed, she takes care to establish an alignment between their gazes when she needs to transmit an important instruction and when the aphasic patient is not focused in the activity.

Finally, when we compare our first results with those found in the clinical field, we observe that the clinical studies (Nespoulous & Joannette, 1986; Labourel, 1982; Laffaire & al., 2001) tend to show that despite the presence of language disorders, communication is not abolished insofar as the aphasic patient can retain certain communication skills and develop compensation strategies, either spontaneously or with the help of the therapist. But the preservation of communication skills is not constant and varies from one subject to another. Although aphasic patients retain some communication skills on a pragmatic level despite their speech and comprehension disorders, for de Partz (2006), it appears that the preservation of pragmatic competence does not extend to all conversational skills because we observe failures in the interactions which result directly from the verbal difficulties of the aphasic patient (expressive and / or receptive) and of working with memory limitations.

However, insist on the fact that the difficult gesture reeducation work of the speech therapist is essential. According to the degree of the disorder of the aphasic patient, the speech therapist shows perfectly that she can adapt her learning strategies, and also take into account the potential difficulties of comprehension for the patient of the object/action drawn on a picture (cf. excerpt 2). For an aphasic patient, relearning to communicate by gesture when lacking the word is not easier than relearning to speak. "To mime" a simple object or action drawn on a picture can seem easy in itself but when the word comprehension is also affected, the communication of the aphasic person can thereby be extremely limited.

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### Transcription conventions

[ ]	Overlapping talk
/ \	Rising montantes ou descendantes
◦ ◦	Lower voice
:::	Extension of the sound or the syllable it follows
p`tit	Elision
trouv-	Truncation of a word
xxx	Incomprehensible syllabe
=	Latching
( )	Uncertain transcription
(( ))	Comments
&	Turn of the same speaker interrupted by an overlap
(.)	Micro-pause
(0.6)	Timed pause

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<sup>2</sup> For the project, previous analyses were conducted in 2012-2013 with two others patients and their caregiver establishing the same methodological device (Colón de Carvajal & al., forthcoming; Teston-Bonnard & al., forthcoming).

<sup>3</sup> This patient Aïcha was also recorded during a meal (lasting 20 minutes) with her daughter but this interaction will not be used for this analysis.

<sup>4</sup> For more details:

[http://icar.univ-lyon2.fr/projets/corinte/documents/2013\\_Conv\\_ICOR\\_250313.pdf](http://icar.univ-lyon2.fr/projets/corinte/documents/2013_Conv_ICOR_250313.pdf)

<sup>5</sup> For more details:

[http://icar.univ-lyon2.fr/projets/corinte/documents/convention\\_transcription\\_multimodale.pdf](http://icar.univ-lyon2.fr/projets/corinte/documents/convention_transcription_multimodale.pdf)

<sup>6</sup> 'Scaffolding' such as said Vasseur i.e "all the interventions of the competent partner that have the effect of allowing at least competent partner to achieve a performance that would not have been successful without this aid" (1993:31-32).