

## Facilitated communication and autistic children: the problem of authorship

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### Abstract

*This paper explores the authorship of the written production of children with autism who need to be physically and emotionally supported by a competent interlocutor in order to communicate. Facilitated Communication is a technique developed for this purpose. However, a significant part of the scientific community considers it a controversial technique because of the difficulty in determining the authentic author of the message. The aim of this study is to examine the written communication of six autistic boys in order to investigate and determine direct or indirect evidence of authorship. In particular, the focus is on the process of communication itself, to find behaviours or written expressions that could disprove the hypothesis of a direct influence of the facilitator. Six secondary school students diagnosed with autism participated in this study. Each student participated in 8 sessions of facilitated communication, 4 with one parent at home, 4 with an educator at school, both parent and educator assuming the role of facilitator. According to our data, evidence of authorship was represented in all categories supporting our hypothesis that facilitated communication can be authentically based both on authentic interactions and messages between both partners.*

**Keywords:** Autism, Facilitated communication, Authorship.

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## 1. Introduction

This paper explores the authorship of written production for children with autism who need to be physically and emotionally supported by a competent interlocutor in order to facilitate written communication. This type of technique has been called Facilitated Communication (FC). It was created in the 1970s by Rosemary Crossley for individuals with limited or non-existent access to oral language, and it was then, subsequently, applied to individuals with autism (Biklen, 1990).

This technique is considered controversial by many in the scientific community, and it is not an approved technique for the communication-impaired (Mostert, 2001).

As Duchan (1993) pointed out, this method has become controversial for a number of reasons, above all, for a lack of consensus about its success. As a matter of fact, children and adolescents using FC can be considered in a certain sense both competent and incompetent communicators. Through this technique they can spell messages that otherwise they could not express. But these persons need much more support than most communicators do, and they are more susceptible to external influence.

A primary factor in determining whether FC is effective or not relates to message authorship, namely assessing the authentic author of each message. The authorship issue is rooted in the method's very nature, as FC is a shared communication method. As pointed out by Bebko, Perry and Bryson (1996), the contribution of the adult communicator in this process is twofold: they consciously supports the communication process; but on the other hand, the communicators can unconsciously influence the content of the messages by providing, for example, some subtle cues to the disabled communicator about an acceptable response through increased or decreased resistance to the interlocutor's movements. Clearly the first contribution approach type is necessary – at least for a certain period – to allow the individual to communicate freely without hindrance; however, the second methodology type would represent a confounding variable. For this reason, the authors stressed how this kind of support can take many different forms: it could be present and continuous, or present but intermittent, or it may not be present at all.

The purpose of this study is to contribute to the debate around FC and messages authorship. The aim of this contribution is not to show that FC has a positive effect for all individuals, but to analyze under what circumstances this type of communication might prove of greatest benefit. In the past decades, the indiscriminate use of interlocutor facilitation has led to the suspicion that it is often the facilitator who writes rather than the autistic person.

On the other hand, the almost complete interruption in scientific debate on this topic in the last decade is unfortunate for two reasons:

1. Despite the fact that most of the available literature concludes that intellectually disabled FC users' communication is the result of inadvertent facilitator influence, the technique continues to be used and the scarcity of studies means that there are many unanswered questions (Grayson, Emerson, Howard-Jones, & O'Neill, 2011);
2. there is some evidence deriving from naturalistic studies as well as from controlled research that FC users have been the authors of some written information unknown to the facilitator (Cardinal, Hanson, & Wakeham, 1996; Sheenan & Matuozzi, 1996; Weiss, Wagner, & Bauman, 1996); in particular, Weiss and colleagues (1996) observed an autistic child in a message passing situation, but concluded just the same that there are at least some individuals for whom FC appears to be a valid method of communication.

For all these reasons, it makes sense to further explore the issue of authorship in FC settings.

First, what does "evidence of authorship" mean?

Most of the literature supporting FC has attempted to find evidence validating the method, analyzing spontaneous productions emerging from "natural" settings. In descriptive studies, the main evidence for authorship considered were: consistent misspelling, unexpected words, the unusual content of some messages and evidence of word-finding difficulties. Moreover, communications occurring in spontaneous settings and containing information unknown to the interlocutor were considered as strong evidence of authorship.

Sceptics are likely to require more stringent evidence: such as the communicator's ability to type messages that contains information not known to the facilitator in controlled settings, or the ability to type messages with no physical support. In experimental situations, researchers have used message-passing tasks. Most results collected with this method have shown that the communicator is not able to write when the facilitator does not know the topic. However, there are some exceptions. For example, Cardinal et al. (1996) adopted a research design considering three conditions (baseline 1, facilitated condition and baseline 2) and a total of 110 trials to test the main hypothesis: namely that facilitated communication users could type words which were unknown to the facilitator, randomly from a 100-word set. The results showed that:

- In the controlled condition some FC users could pass information to a facilitator even though they were not aware of that information;
- The number of words accurately written in this message, increased when there was the opportunity for further practice;

- The participant's performance in the non-facilitated baseline 2 condition was better than in baseline 1, a fact which suggests the subject was learning how to type without physical support.

This study emphasized the importance of avoiding over-controlled situations, where not only the facilitator is unaware of the words being typed, but where he/she is given misleading information and wears ear-phones. As we pointed out before, the study also stressed the importance of practicing on the basis of the test situation. Researchers have suggested many ways in which findings can be better investigated. Certainly, it is important to understand why some of the participants failed to pass-on any information during the test trials.

Duchan (1993) suggested innovative ways of conducting video-analysis or video-microanalysis of natural and spontaneous communication. Indeed, it is difficult to understand the authorship of a message without analyzing the context of the communication. A careful study of the communication process allows the observer to collect evidence on how the communicator constructs their message (Duchan, Calculator, Sonnenmeier, Diehl, & Cumley, 2001).

First of all, it is possible to study the degree and type of physical support required. This is a very important question, since most of the criticisms of FC authorship are based on cases in which the communication facilitator supported the hand or the wrist of the disabled person, making it difficult to visually determine the origins of the movement, as the facilitator's hands and the FC user's move together. Bara, Bucciarelli and Colle (2001) avoided involvement in the controversy by selecting only subjects that showed a good level of autonomy in using FC. According to these authors, a hand on the shoulder or the thigh excludes the possibility that the facilitator affects the answer of autistic participants.

Furthermore, it is possible to video-record when and how often FC users look at the keyboard, and to analyze the direction of their gaze. This suggestion is very important because the possibility of connecting looking and typing or pointing actions could confirm the authorship of the written productions.

For the author, video-microanalysis also allows the observer to examine participants facial expressions and the content of affective messages. The potential connection between the two events should make it difficult to attribute the content of the message to other persons.

Duchan and collaborators (Duchan, 1993; Janzen-Wilde, Duchan, & Higginbotham, 1995) also proposed a psycholinguistic analysis of facilitated writings in order to come to some pertinent conclusions about the consistency of communicative ability over time and in different contexts, thereby indirectly contributing to the debate about the authenticity of facilitated production. These authors identified six characteristics that, in contexts of natural interaction, might be indicative of the authorship of the message by FC users: unex-

pected content, unconventional spelling, writing of entire sentences without physical support, giving information unknown to the facilitator, oral spelling and self-corrections.

These suggestions have been almost completely ignored by the international scientific community. The qualitative nature of most data in favour of authorship and the repetition of the same results in experimental studies have made this topic practically “taboo” and, in the last ten years, there has been an almost complete absence of scholarly publications on the topic.

Rare exceptions were some studies directed on the linguistic features of FC. A few studies on individual cases (Zanobini & Scopesi, 2001; Niemi & Karna-Lin, 2002; Scopesi, Zanobini, & Cresci, 2003; Zanobini, Camba, & Scopesi, 2008; Zanobini, Camba, Cozzani, & Scopesi, 2011) documented the specific characteristics of facilitated language: rich in rare words, and forms and grammatical constructions typically not used by adults. Also, one textual analysis study (Bernardi, 2008) conducted with thirty-seven Italian autistic persons revealed that the lexicon of the autistic persons was richer in uncommon expressions than either the facilitators’ lexicon or the control group’s (six persons with typical development).

Grayson *et al.*’s study (2011) offers a valid starting point for encouraging renewed interest in this field. The authors suggested that a systematic observational inquiry could add useful knowledge to this topic. The principal aim of their study was to precisely and reliably describe the relationship between an FC user’s looking and pointing behaviour by employing specialist eye-tracking equipment and through video analysis. The main research hypothesis was that if the FC user involved in this case study was really the author of the texts that were constructed during the data collection sessions, then one would expect to see a systematic relationship between looking and pointing. Supporters of the facilitator-influence hypothesis would interpret Grayson *et al.*’s findings by affirming that any existing relationship is ‘caused’ by pointing, which, in turn, is influenced by the facilitator. In other words, the FC user is simply following the trajectory of their (guided) finger with their eyes. However, beyond just finding a correlation, Grayson *et al.* showed how simply the action of looking systematically preceded that of pointing.

In order to show that the FC-user was the author of the typed text, they hypothesized that the FC user was making visually guided and intended movements towards letters, and therefore needed to look before pointing to them. Two principal hypotheses were tested:

- 1) There would be a systematic relationship between looking and pointing, which cannot be attributed to only “chance”.

2) Fixation durations on to-be-typed letters would be on average longer than fixation durations on not-to-be-typed letters.

The results showed a strong relationship between the actions of looking and pointing. Furthermore, fixations on the to-be typed letters were on average longer than fixations on irrelevant areas of the keyboard.

Taking into consideration the strong evidence supporting this technique, included in Grayson *et al.*'s work (2011), along with Duchan *et al.*'s suggestions (Duchan, 1993; Janzen-Wildeet *et al.*, 1995), the aim of this study was to examine the written communication of six autistic boys. The examination aimed to see if it were possible to find direct or indirect evidence of authorship. In particular, the focus was on the process of communication in order to seek out behaviour or written expressions that could disprove the hypothesis of direct influence from the facilitator.

The six subjects were expected:

- to write comments in disagreement with the adult;
- to anticipate some written language with congruent behaviour or oral language when that was present;
- to write information not known to the adult.

The adult communicator, meanwhile, was expected:

- at times to “wrongly” anticipate the subjects’ written text;
- to need occasional clarification from the six participants in order to understand their language.

In synthesis, if evidence is found supporting the idea that on some occasions some autistic people can write without the direct influence of another person, then this form of communication is valid and authentic. Most importantly, it means that autistic people are able to express their own thoughts through FC.

## 2. Method

### 2.1 Participants

Six secondary school students participated in this study (table 1). Five of them were diagnosed with autism with absence of spoken language, whereas one of them was diagnosed with fragile-X syndrome with some linguistic production.

Table 1 - *Description of participants: age, school, diagnosis and experience with FC*

	<i>Age</i>	<i>School</i>	<i>ICD 10 Diagnosis</i>	<i>Experience with FC</i>
P1	14 years and 3 months old	Grade 9, Scientific Studies	Infantile autism	4 years
P2	16 years	Grade 10, Classic Studies	Infantile autism	10 years
P3	16 years and 3 months	Grade 10, Classic Studies	Fragile X, autistic syndrome	10 years
P4	14 years and 6 months old	Grade 8	Infantile autism	9 years
P5	15 years and 3 months old	Grade 9	Infantile autism	8 years
P6	16 years and 1 months old	Grade 10 Artistic Studies	Infantile autism	9 years

Participants were selected according to the following criteria:

- each student had been using FC for at least 5 years
- they had a certain autonomy in writing, that is they only needed a contact on their shoulders or another part of their body not directly involved in the process of writing (see table 2).

Table 2 - *Type of facilitation*

<i>Subject</i>	<i>Facilitator</i>	<i>Type of facilitation</i>
P1	Parent	Standing behind P1, keeping the left hand on P1's left shoulder, and holding his right hand on his chest with the right hand.
	Educator	Standing behind P1, keeping both hands on his shoulders.
P2	Parent	Sitting on the right of P2, holding with the left hand his hand (which is not used for typing)
	Educator	Sitting on the right of P2, holding with the left hand P2's hand (which is not used for typing)
P3	Parent	Sitting on P3's right, keeping the left hand on the P3's thigh, and exerting a pressure with the fingers.
	Educator	Sitting on the right of P3, keeping the left arm around P3's shoulders and the hand on his left shoulder
P4	Parent	Sitting on the right of P4, with the left hand on P4's right shoulder.
	Educator	Standing on the right of P4, keeping the fingers on P4's right shoulder
P5	Parent	Standing behind P5, holding the left hand on P5's back, or holding the right hand on P5's shoulder.
	Educator	Standing behind P5 and keeping both hands on P5's shoulders
P6	Parent	Sitting next to P6, keeping the right hand on P6's right shoulder
	Educator	Standing behind P6, keeps both hands on P6's shoulders OR sitting next to P6, supporting with the right hand P6's right elbow OR sitting next to P6, keeping the right hand on P6's right shoulder.

## 2.2 Procedure

For the diagnosis of autism, existent evaluations were used. The diagnostic documentation for each participant was screened in agreement with parents and educators. Where the documentation was incomplete, participants were assessed through CARS (Schopler, Reichler, & Renner, 1988), in collaboration with the professionals who represented the clinical point of reference for the families.

During a preliminary meeting the aims of the research were explained and the consent forms for the overall evaluation and the videotapes of the sessions were filled-out by parents and educators.

Each student participated in 8 sessions of facilitated communication in natural settings, 4 with one parent, 4 with an educator, both of them assuming the role of facilitator. Each session lasted at least 40 minutes. Each time the participant was not feeling comfortable with the procedure, the session was suspended and re-scheduled. Facilitated communication sessions were video and audio-recorded and transcribed. Furthermore, two independent observers were present during the sessions and their observations were integrated into the transcripts. The observers carefully took notes on the essential context: start and finish times, pauses, type of support and situation.

In each session the following procedure was followed. After an initial step of familiarization in the presence of the observers, participants were given a general instruction: "What would you like to talk about today?" In this way, the participant-facilitator dyad was inserted in a working situation similar to their usual ones.

At the end of each session, the observers asked the facilitator questions about how typical/atypical the session had been; the presence of unexpected content and/or unknown information within the participant's interventions was noted.

## 2.3 Data analysis and coding system

All video-recordings were transcribed immediately after the FC session by one of the two observers, and doubtful cases were discussed with the other observer. Complete transcriptions included: participants' written productions; facilitators' oral production; notes from the observers; notes from the video; changes in facilitation; physical contacts between the facilitator and the subject; and stereotypy, or the subject's behaviour when it interfered with his writing activity (Camba & Zanobini, 2010). Transcriptions were integrated with a microanalysis of the videos, allowing for an accurate report of each participant's individual behaviour in terms of the sequence of events. In those cases in which the writing of words and sentences was interrupted by one of the participant's oral interventions or some non-verbal act, these interventions were reported in the correct sequence, distinguishing between oral language, written language, and non verbal behaviour.



From an analysis of the participants' writings and from the relationship between the writing and the verbal and non-verbal behaviour of the participants, evidence for authorship was extracted; that is, evidence that texts typed by the children were authentic. This authorship evidence was derived from either participants' behaviour or from the facilitators' behaviour. Evidence could support either physical motor independence/autonomy (i.e. written production without any facilitating contact) or a psychological equivalent (i.e. suggestion and/or exhortation disregarded by the participant).

The coding system used to collect data on authorship for the written productions is presented in table 3.

Table 3 - *Coding system for authorship evidence*

<i>Authorship Evidence</i>	<i>Definition</i>	<i>Example</i>
1) autonomous writing, without facilitation	Typing of words autonomously, without any facilitating contact	P3: <i>how we all behaved [typing without any contact with the facilitator]</i>
2) participant's comment in disagreement with the facilitator about the form or the content	Facilitator's exhortations or suggestions that are not followed by the participant, who give their reasons.	F: <i>You have to finish this session, it just takes 10 minutes.</i> P6: <i>AND I SAY I HAVE ENOUGH OF ALL OF YOU!</i>
3) facilitator's comment in disagreement with the participant about the form or the content	Facilitator's statements aimed at disagreeing with formal or content aspects of the participant's writing.	P6: <i>I NEED SOMEONE WHO SPEAKS FRENCH</i> F: <i>But why? You speak French, plus you had a teacher and you still did not want to do this. Why do you need someone who speaks French, you know, it is you who has to write, not the other person.</i>
4) participant's answers incongruent with the facilitator's interventions	Situations characterized by the facilitator's erroneous anticipations of the participant's thinking: the interventions expressed by the facilitator are based on an interpretation or anticipation of the participant's writing, but afterwards they prove to be wrong; clarifying interventions on parts of words considered not to be correct, interruptions by the facilitator ignored by the participant.	P4: <i>CAN I JUST MAKE A SMALL CRI</i> F: <i>I thought it was a question</i> P4: <i>TICISM</i> F: <i>Ah, now I get it!</i> ... F: <i>Between us there is no such problem, we have known each other for a long time</i> P5: <i>si (=yes)</i> F: <i>do not just write "si" (=yes), I am not interested in this answer</i> P5: <i>si-amo amici (= we are friends)</i>
5) Information not known to the facilitator	The participant's typing information that is not known to the facilitator	F: <i>What were you talking about in your group? I was not with you for a very long time. I was not with you TODAY, I do not know what you have been doing, come on</i> P6: <i>I WILL TELL YOU ABOUT WHAT WE HAVE DONE TODAY WHEN THERE WAS TOMMASO WITH ME: WE HAVE WATCHED A MOVIE [...]</i>

<i>Authorship Evidence</i>	<i>Definition</i>	<i>Example</i>
6) the participant orally anticipates his/her written production.	Participant's oral anticipations of the words or part of the words that he/she is going to write immediately after.	P3: <i>DEMONSTRA</i> F: <i>What are you writing? Demonstra?</i> P3: <i>tion (by word of mouth) TION (typing)</i>
7) Facilitator's request to clarify the meaning of words or statements	Facilitator's interventions aimed at requesting to the participant a clarification on words or statements written by him/her	P4: <i>SURELY MANY VERY SMALL COLLECTIVE MOMENTS DEDICATE YOU COULD</i> F: <i>What do you mean by 'collective moments'?</i>
8) Participant's emotional behavior or reactions that congruently anticipate his/her verbalizations	Non-verbal behavior or emotional reactions supporting what will be written afterwards.	P4: <i>(giggling) I SAY THEY ARE TWO OLD WOMEN</i> F: <i>Why are you saying they are two old women?</i> P4: <i>THEY ARE NOT YOUNG, AND NOW I FEEL THAT THEY COULD EXAGGERATE LUNCHES MAKE (giggling) ... GIFT OF SLIMNESS THEY DO NOT HAVE</i>

### 3. Results and discussion

According to our data, all categories of authorship evidence were represented. The most frequent categories were the ones highlighting a disagreement between facilitators and participants. Five participants produced written answers that resulted in an incongruence with the facilitator's interventions, 18 times across the sample. Four participants produced written comments in open disagreement with what the facilitator had just said, or in the form (i.e. spelling) or in the content, 21 times in all. Vice versa, the facilitator openly disagreed with 4 of the participants, a total of 18 times. Four participants showed an emotional reaction to the working situation and/or the facilitator that congruently anticipated his written productions (e.g. giggling before writing something funny), for a total of 10 times. Three participants wrote information that was unknown to the facilitator, a total of 9 times. Two participants orally anticipated their written productions a total of 9 times, and the same number was asked by the facilitator to clarify the meaning of a word or a statement that they had previously written, for a total of 5 times. Finally, only one student autonomously wrote two sentences, without any physical and facilitating contact (see Table 4).

Table 4 - *Frequencies and participants' rates for authorship evidence categories*

<i>Authorship Evidence</i>	<i>Frequencies</i>	<i>Number of Participants with at Least 1 Hit</i>
1) Autonomous writing, without facilitation	2	1
2) Participant's comment in disagreement with the facilitator about the form or the content	20	4
3) Facilitator's comment in disagreement with the participant about the form or the content	19	4
4) Participant's answers incongruent with the facilitator's interventions	18	5
5) Information not known to the facilitator	10	3
6) The participant orally anticipates his/her written production.	9	2
7) Facilitator's request to clarify the meaning of words or statements	5	2
8) Participant's emotional behaviour or reactions that congruently anticipate his/her verbalizations	10	4

Here the data for each category will be discussed in detail.

### 3.1 *Autonomous writing, without facilitation*

In the third session between P3 and his parent, while the participant was writing “We can have a healthy...”, C, the facilitator moved her left hand from P3’s right shoulder (facilitating contact), and the participant wrote the sentence without any contact. The situation occurred again in the same session when P3 began writing a sentence with a facilitating contact, but finished it without any contact with the facilitator (i.e. the written parts in bold without facilitating contact “how we *all behaved*”; “just like real ladies *magnificently* well “When are we seeing each other *again*?”).

This is the most compelling evidence that the author of the written message is himself the facilitated person. The fact that the subject was able to write without any contact, however, in the presence of the facilitator, suggests that the facilitator plays, at times, only an emotional supportive role. This evidence clarifies that the contact works as a sign of presence, to reassure the facilitated boy/girl, and not as a modality to pilot the facilitated person’s movements on the keyboard. For this reason, when the facilitated person feels confident with the activity, the presence of the facilitator is enough.

When data were collected, only one subject was writing autonomously. Currently P3 is able to write without any facilitating physical contact.

### *3.2 Participant's comment in disagreement with the facilitator about form or content*

The fourth session between P6 and his parent:

F: "You have to finish this session, it just takes 10 minutes"

P6: "AND I SAY I HAVE HAD ENOUGH OF ALL OF YOU..."

In the first session between P3 and his educator:

F: "I accept it, chatterbox. Now tell me something deeper"

P3: HUMOR IS A HIGH DEMONSTRATION OF INTELLECTUAL ABILITY

In the fourth session between P4 and the educator:

P4: I WAS IMAGINING THAT THE LITTLE FRIEND IN THE SIMPLICITY OF THE HAPPY EXPRESSION FEELS A LOT OF JOY

F: "You should put the brakes on this sentence or you'll get lost. I suggest you put a full stop"

P4: SMALL THOUGHTS I HATE

A disagreement between the facilitated person and the facilitator was often found in our data in both directions.

The comments made by the facilitated person in disagreement with the facilitator were the most frequent category of evidence for authorship. If it is true that facilitators direct the movements of the facilitated person, then SIMILARLY SO would all the facilitators who participated in this study have pushed the students to write sentences in open disagreement with what he/she had just said or written?

These examples ALSO support too the hypothesis that the communication taking place between the two individuals (student and educator) is real and authentic. Indeed, it is typically adolescent to continually disagree with a "significant" adult and for the adolescent to express his own thoughts.

### *3.3 Facilitator's disagreement with the participant about form or content*

In the first session between P6 and his parent:

P6: I NEED SOMEONE WHO SPEAKS FRENCH

F: *But why? You speak French, plus you had a teacher and you still did not want to do this. Why do you need someone who speaks French? You know, it is you who has to write, not the other person.*

In the first session between P5 and his parent:

*F: What do you prefer, pizza or disco?*

*P5: DISCO*

*F: I organized a Pizza, you knock me out, P5!”*

[...]

*F: Do you want to invite the professors too?*

*P5: NO*

*F: Noooo, why not?*

In the second session between P4 and his parent:

*P4: DAD MUST TAKE ME*

*F: Where?*

*P4: PLACE SWIMMING-POOL*

*F: You know that Dad, on Tuesdays, can't take you because he works. On Saturdays, when he could be free, you go to school*

In the fourth session between P1 and his educator:

*P1: IN KINDERGARTEN, NO ONE HAS EVER MADE SOAP BUBBLES FOR ME*

*F: Poor guy, no one has ever made soap bubbles for him, poor guy! How many lies you tell! In primary school I remember how we used to play with soap bubbles.*

In the first session between P3 and his educator:

*P3: LEAVE ME ALONE!*

*F: Only if we talk a little[...] otherwise they will think that we are just playing*

In all these examples, just like the preceding category, there is no agreement on the content of the discussion. Consequently, the two participants had to negotiate the meanings of the discussed topic, and this represents evidence that each participant is the author of his/her messages. It is highly unlikely that all the facilitators artificially created conflicts and interpreted both sides alternately, theirs and the autistic person's. Furthermore it must be noted that, though this research did not aim at proving the efficacy of this method, this category also represents a proof of effective communication.

### *3.4 Participant's answers incongruent with the facilitator's interventions*

In the third session between P1 and his educator:

*P1: I AM NOT ALLOWED TO CHOOSE WHETHER W....*

*F: What does “W” mean? (the facilitator cancels the W)...whether, come on!*

*P1: WRITING OR DOING SOMETHING ELSE*

In the fourth session between *P3* and his educator:

*P3: IMAGES ASSOCIATED TO THE IMAGO (he cancels the “O”)*

*F: Ah, I thought you wanted to quote from Latin, eh? [in Latin, imago= image]*

*P3: E [to complete the word “image”]*

In the second session between *P2* and his parent:

*F: Shall we revise the lesson?*

*P2: SO (in Italian these are the first to letters for the word “sono”, which is “I am” in English)*

*F: “So” is neither yes (“sì” in Italian) nor no (“no” in Italian), answer me!*

*P2: SONO ATTRATTO DALLA TELECAMERA (in English: “I am attracted to the video-recorder”)*

In the third session between *P4* and his educator:

*P4: CAN I JUST MAKE A SMALL CRI*

*F: I thought it was a question*

*P4: TICISM*

*F: Ah, now I get it!*

In the first session between *P6* and his parent:

*P6: I CERTAINLY WON’T GET GOOD MARKS AT THE END-OF-TERM ASSESSMENT*

*F: Why not? Why do you think that that is?*

*P6: I WANTED TO CRY MY EMOTIONS TO THE WORLD*

In this category, the autistic participants followed their own line of thought, even if incongruent with the facilitator’s input. Again, it is highly unlikely that such a situation was artificially created by all facilitators.

### *3.5 Information not known by the facilitator*

In the second session between *P2* and his educator:

*P2: I WAS WORRIED ABOUT YOUR POSSIBLE ABSENCE AT SCHOOL TO DECIDE STUDYING SUBJECTS*

*F: ...Come on, I do not understand... I did not know that there would have been this to decide, who did you hear it from?*

In the second session between *P6* and his educator :

*F: What were you talking about in your group? I have not been with you for a very long time. I was not with you TODAY, I do not know what you have been doing, come on*

*P6: I WILL TELL YOU ABOUT WHAT WE HAVE DONE TODAY WHEN THERE WAS TOMMASO WITH ME: WE HAVE WATCHED A MOVIE I DO NOT REMEMBER THE TITLE IT WAS ABOUT A YOUNG UNIVERSE OF RENOUNCERS WHO WANTED TO EXPAND THEIR WORLD OF BIG NATURAL TREASURES. I LIKED IT A LOT, BECAUSE I THINK THAT I AM TOO PART OF THIS SOCIETY AND THAT I AM NOT A RENOUNCER, BUT TENACIOUS OF LIFE AT ALL COSTS*

In the third session between *P5* and his educator:

*F: Did you get an Easter Egg?*

*P5: NO*

*F: why?*

*P5: BECAUSE I AM ON A DIET*

This category represents strong evidence supporting the authorship of messages. Indeed, this category described situations in which the facilitator asked the autistic student information which was not known to him. Consequently, all the content of the participant's subsequent message can be attributed to the participants alone.

### *3.6 The participant orally anticipates his/her written production.*

In the first session between *P3* and his educator:

*P3: IF YOU WANT TO VERIFY MY KNOWLEDGE AND MY LEXICAL PERTINENCE*

*P3: [speaking] I said*

*P3: I SAID...*

As already noted, the majority of participants in this study are not able to speak. Nevertheless, in the case of the single subject who was able to speak fluently, his verbalization sometimes preceded the corresponding written production, showing evidence of planning.

### *3.7 Facilitator's request to clarify the meaning of words or statements*

In the third session between *P1* and his parent:

*P1: THE EXTREMELY SECURE AND BRAVE STUDENT PROCEEDS WITHOUT HESITATION, HAPPY WITH THE CONSTANT AND DILIGENT PREPARATION SURE IN HIS BRACES*

*F: No, P1, what do those braces have to do with it, please? What do the braces have to do with all this?*

*P1: SO HE FEELS*

*F: What does it mean? What does he feel?*

*P1: NOTHING LESS THAN THE PROUD OCCURRENCE OF THE DUCE [Benito Mussolini] WHEN HE LOOKED OVER FROM THE BALCONY OF PIAZZA VENEZIA*

*In the third session between P4 and the educator:*

*P4: READY NOW WILL YOU BE ABLE TO TALK TO ME SWEET...*

*F: Sweet. Ready now you'll be able to talk to me sweet. Sweet what?*

*P4: LY*

*F: Ah, I understand*

This category supports the hypothesis that autistic participants are the authors of their own messages. Indeed, the subject produces a message that is not fully understood by the facilitator, who, in turn, has to interrupt the communicating process to explicitly request context clarification. Only the subject, as author of the message, can disclose the authentic meaning of the message and re-start the communication process.

### *3.8 Participant's emotional behaviour or reactions that congruently anticipate his/her verbalizations*

During a first session between the *P4* and his mother

*F: "Did you like the ballet?"*

*P4: OK?*

*F: "Was it OK?"*

*P4: OK*

*F: "I am not sure whether this is your answer",*

*P4: Makes an expression of disappointment with his face, along with some grumbling sounds.*

*F: "Let's complete the sentence, it is not enough."*

*P4: Agitates his feet and writes: HEAVY IS YOUR INSISTENCE*



The verbal antecedents, significantly connected to the content of the written production, are evidence of a genuine intention that precedes and guides the act of writing. Even if we wanted to support the hypothesis that all facilitators in our study are able through a distal contact to “magically” communicate with the autistic subjects, no one would suggest that the facilitator can induce the subject to show specific non-verbal behaviour, congruous and synchronous to the corresponding written communication.

## 4. Conclusions

This study is based on the suggestion that a video analysis of naturally occurring social interactions can shed light on the communicative process that takes place during facilitated communication. First of all, this method can yield reliable quantification and accurate descriptions of the behaviour found here (Duchan, 1993; Grayson *et al.*, 2011). As expected, the study has revealed some evidence that disproves the hypothesis of direct influence between the facilitator on the content of the written communication of the autistic subjects. First of all, the video analysis allowed us to check facilitation and to be sure that, throughout the registered sessions, no facilitator supported hands or wrists as they were involved in the written process.

Furthermore, analysis of the sequence of the taking of turns of the two interlocutors has allowed this study to focus on strong evidence of authorship. Independent writing, for example, even if present only in one participant, our data shows that the facilitator’s support is not always necessary (Konstantareas & Gravelle, 1998). Strong evidence of authorship includes the connection between non-verbal behaviour, namely, and the content of the written text, on the one hand, (Duchan, 1993) and on the other, and the oral anticipation of some part of the written text. Finally, the dialogue sequences often includes requests for clarification to clear-up misinterpretations and resolve possible conflicts of character in the reciprocally sensitive roles of the interlocutors.

A problem with this study is the limited quantity of evidence collected. This fact is explained not only by the small size of the sample and the corpus of the written texts, but also by the tendency to be conservative in the analysis of the patients’ behaviour that might be considered factual proof. For example, it was not always possible to see the expression of the subject on the video. We codified a certain behaviour or sequence of acts as evidence only when all the information was available.

Caution is necessary especially where practices are controversial (Duchan, Calculator, Sonnenmeier, Diehl, & Cumley, 2001).

This study did not aim at proving the efficacy of Facilitated Communication. It focused rather on this method's "authenticity". Our data strongly supports the hypothesis that the six boys were the authors of their written messages. The efficacy of this method in improving the quality of life among the autistic and their families remains open. We think that further research is justified, taking into account, naturally, the opinion of autistic persons (Gernsbacher, 2007).

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