



Building intersubjectivity at a distance during the collaborative writing of fairytales

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Abstract

This paper introduces intersubjectivity as a concept playing a crucial role in collaborative tasks, even when performed between partners at a distance. Two 5th grade classes from two European countries (Italy and Greece), collaborated in writing fairytales inspired by philosophically relevant issues. The software supporting the task is an asynchronous virtual environment. Videos recorded in the Italian class and materials posted on the platform were analyzed using qualitative approaches and discourse analysis. The case-study discussed shows how the construction of intersubjectivity at a distance is a complex process involving many aspects. The main results highlight how participants: (a) use the narrative structure as a pre-requisite to build an intersubjective space where partners' representation plays an important role; (b) exploit to a high degree the intellectual reasoning needed to accomplish the task in a truly collaborative way; (b) attain a fine tuning of reflective and metacognitive skills fostering a genuine interdependency during the task. Within this process, computer mediation amplifies the partners' "presence" all through the creative writing process, expanding [Bruner, J., 2002. *Making stories: law, literature, life*. Farrar Straus & Giroux] definition of writing as an activity where the "audience" plays a fundamental role as a "co-author".

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1. Introduction

Specific lines of research, such as Computer Supported Collaborative Learning (CSCL) (Dillenbourg et al., 2001, Lipponen, 2000), Collaborative Virtual Environments (CVEs) (Ligorio, 2001; Renninger & Shumar, 2002; Smith & Kollock, 1999), and Powerful Learning Environments (PLE) (De Corte, Verschaffel, Entwistle, & Merriënboer, 2003) largely study the effects of using computers to enhance collaborative processes in educational contexts. Despite decades of research in this field, certain aspects, such as how the representation of partners at a distance may influence performance in a collaborative task and how an intersubjective understanding of the task is created and maintained, still need more inquiry. The ability to create intersubjectivity is increasingly considered a fundamental aspect in learning processes, especially when a socio-cultural vision of learning is embraced (Cole, 1996; Matusov, 2001; Resnick, Säljö, Pontecorvo, & Burge, 1997). This approach extends the relevance of mediated interaction: only by joint participation in collective practices and activities we can make sense of experiences and share meanings within our community. This process, occurring through constant negotiation, also involves the way we understand another's emotion and cognition. Being able to go beyond one's own perception and include another's way of thinking is the basis for the construction of intersubjectivity (Grosen, 1998; Rommetveit, 1976). The aim of this paper is to contribute to the understanding of how intersubjectivity is enhanced and developed by setting carefully designed tasks sustaining cross-national collaboration mediated by collaborative virtual environments.

2. The roots of intersubjectivity

Intersubjectivity has been studied from different perspectives and it is strongly rooted in philosophy. Husserl (1931), albeit within the extreme reductionist approach, acknowledged that it was not possible to know the world without shifting to a different perspective from one's own. Lavelle (1957) sustained that the understanding of individual stories is possible only by reconstructing the history of interpersonal relationships. This is why it is only by recognizing "otherness" that we can realize our own personality. Later, Merleau-Ponty (1962) attempts to go beyond the juxtaposition between "I" and "You": no longer considered alternatives, "I" and "You" are two aspects of the same phenomena. According to this approach, the self can be expressed only through a constant communication with the other. From this evidence, Crossley (1996) conceptualised the idea of an abstract counterpart with whom individuals need to be constantly in contact when they want to understand the human world. This leads to the creation of an "interworld", an intersubjective space where meanings are shared and no longer belong to one single person. Dialogue becomes the fulcrum of existence, the only place where the authenticity of the human being can be found, as claimed by Buber (see Avnon, 1998), and the "I" evolves only within a reciprocal relationship with its fellows. Most recently (Coelho & Figueiredo, 2003), close relationships between dimensions of otherness and patterns of intersubjectivity have been outlined. The relevance of dialogue with others and its role in forming individualities and intersubjectivity is also central to the psychoanalytic approach. In fact, Freud recognizes alterity as fundamental for the therapeutic relationship, which is basically a relationship between a speaker and a listener. The encounter of these two actors creates

an intersubjective space that also includes individual's principles and the structure of the context (Atwood & Stolorow, 1993).

All the definitions of intersubjectivity so far reported focus, with varying degrees of explicitness, on the relevance of communication processes. Based on this conceptualisation, intersubjectivity refers to the speakers' ability to decentralize themselves and to include the interlocutors' perspective within their own view.

Rommetveit (1976) introduces the concept of "architecture of intersubjectivity", which allows not only the object of the communication but also the premises of communication (what is there before the communication) and the reciprocal understanding about the object (what is there after the communication) to be considered as part of the communication process. Regarding the dichotomy between "I" and "You", Rommetveit (1976) states that human dialogue is neither completely private nor entirely public but occurs within an intersubjective social reality.

It is along this line that the work of Michail Bachtin (1986) can be situated. Bachtin builds a model where literary structure is not given but is generated by the nature of the word. In Bachtin's view the word is an intersection between textual surfaces, more precisely it is an intersection of three voices: those of the writer, addressee (or character), and cultural context (previous or contemporary). Each word establishes a dialogue both horizontally (writer/addressee) and vertically (anterior or synchronic literary corpus). In this sense, the word is a mediator (paradigmatically linking a system to a practice) and regulator (synchronically realising a definite diachronic point of development). Dialogue is inherent to language itself and the practice of language becomes discourse. Writing is both subjectivity and intertextuality, always implying an audience and, in the case we are going to discuss in this paper, also a "co-author". When writing, intersubjectivity becomes intertextuality, as Kristeva (1986) clearly explains.

Even though the philosophical, semiotic, and linguistic roots of intersubjectivity are very strong, these concepts migrated into educational and developmental studies as a consequence of the increase in the social dimension of learning and development (Wells, 1993) and, thus, the greater relevance of communication within these processes.

3. Intersubjectivity in social, developmental, and educational psychology

The social origin of human processes – such as learning and development – has many antecedents. Mead (1934) clearly described as human thought arises even before language appears, with gesture interaction. It is also through the conversation of gestures that intersubjectivity is built. The specific term – *opractical intersubjectivity* – recently introduced by Joas (1997) characterizes the link implicit in Mead's work between a theory of intersubjectivity and a theory of praxis. Mead's work influenced both developmental and learning studies. The centrality of dialogue and communication made intersubjectivity relevant also for developmental psychology. Kaye (1982) and Stern (1985) showed how regulation and organization of child experience takes place within a system of mother–child reciprocal influence. It is the mutual possibility of subjectively representing the self, as Wertsch (1998) also proved empirically, that gives rise to intersubjectivity between mother and child. Similarly Beebe and Lachmann (1988) claim that at the basis of the emergence of the self there is a dyadic system for mother–child reciprocal influence.

A leading definition of intersubjectivity comes from Piaget (1937/71, 1980). He considers intersubjectivity to be mainly due to perspective-taking and decentration of individual processes working on socially-derived information. The definition of intersubjectivity as the skill of constructing a new understanding by combining different perspectives, becomes for post-Piagetian scholars the mechanism supporting changes; and this mechanism is stronger when participants have different cognitive levels (Grossen, 1988; Grossen & Perret-Clermont, 1994).

For Vygotsky (1930/1971, 1978) intersubjectivity is a process that takes place between people, particularly between a competent adult and a less competent child. Building intersubjectivity means going beyond individual understanding, as happens when zones of proximal development are activated. Social interaction generates new understandings, which are more than the mere combination of two or more points of view (Wells, 1993).

The socio-constructivist perspective combines Piaget's contributions (especially about the active participation of learners in constructing their knowledge) with Vygotskij's ideas about the social origins of thinking, and intersubjectivity becomes a social process. Introducing this concept in education implies an empowerment of pupils in their learning processes as well as a stronger focus on interactive moments, such as collaboration and socio-cognitive conflicts.

Later, within a more cultural approach, what guides parent-child interaction is the so-called *prolepsis* (Cole, 1996; Forman, Minnick, & Stone, 1993). This concept is preferred because it enables individuals to be considered in their cultural dimension. In fact, *prolepsis* includes parents' expectations about the future of their children and, at the same time, their own history as daughters and sons. Through *prolepsis*, past and future converge in shaping present interaction patterns between children and parents. In this way, *prolepsis* enriches the process of building intersubjectivity by adding cultural and historical dimensions (Perret-Clermont, Pontecorvo, Resnick, Zittoun, & Burge, 2003).

4. Intersubjectivity at a distance

Within a socio-constructivist, cultural framework, learning occurs through collaboration and participation in a community of learners (Brown & Campione, 1990) and practices (Wenger, 1998, 2000). Learning is conceived as a constructive activity, only made possible through social interaction aimed at collaboration (Bruner, 1996; Pontecorvo, 1993, 1997; Scardamalia & Bereiter, 1994; Vygotsky, 1978). The dialogical dimension of learning is strengthened because of the idea of collaboration as a process based on communication (Koshman, 1999). A dialogical point of view is also being increasingly adopted by the most recent cross-cultural psychology since it is the periphery of this phenomenon to be studied, rather than the core aspects (Appadurai, 1990). In the dialogical approach the periphery is defined as the meeting point between different cultures, as the moment when people really try to understand each other and to overcome all kinds of limitations (language, attitude, gender, age). These theoretical perspectives have been translated into different pedagogical practices, all stressing collaborative strategies, which not only serve as the engine supporting learning but also foster community-building processes. The introduction of mediated communication and collaborative virtual environments in learning contexts has the effect of extending the community beyond the school walls, blurring the borders of the educational community (Kim, 2000; Talamo,

Zucchermaglio, & Ligorio, 2001). As a consequence, collaborative strategies become far more complex. In fact, tasks are often shared with new partners located in remote sites and interaction is no longer face to face but mediated by the computer. As already pointed out in the introduction, many research lines – Computer Supported Collaborative Learning (CSCL), Collaborative Virtual Environments (CVEs), Powerful Learning Environments (PLE) – explored the role of computers in supporting collaborative strategies. Much of the research carried on within these frameworks is addressing the question of how computer-mediated collaboration may foster the dissemination of knowledge and competences through members of the community (Engeström, Miettinen, & Punamäki, 1999; Salomon, 1993; Scardamalia & Bereiter, 1994). Due to the attention devoted to knowledge sharing and building, intersubjectivity is not yet adequately investigated, specially when it concerns participants interacting at a distance. The reasons of the lack of this specific type of study is a consequence of the fact that collaboration at a distance is more difficult to manage within regular class activities, although experiences undertaken so far (Ligorio, 2000; Schwartz & Ligorio, 2004; Thurston, 2004) have yielded positive results, especially in terms of pupil and teacher motivation and commitment. The implications related to the use of web-based Collaborative Learning Environments (CLEs) seem to support the understanding of a complex process such as the construction of intersubjectivity at a distance. The case-study discussed in this paper aims to bring to the fore this type of process, occurring between participants situated in remote sites but sharing a task to be performed collaboratively by interacting only at a distance through a collaborative learning environment.

5. A cross-national task: collaborative writing of fairytales

The task described here was planned with the purpose of exploiting the opportunity offered by a web-based Collaborative Learning Environment called Synergeia, described by Rubens, Emans, Leinonen, Gomez Skarmeta and Simons (in this same issue), to foster cross-national collaboration. This was possible within a larger European project, ITCOLE, described in the presentation of this special issue, involving several countries. The task was about the collaborative writing of fairytales. For this particular task a close connection was made between two schools belonging to two different countries, Italy and Greece. The two classes, both 5th grade, shared a common interest in developing philosophy curricula for young children and in establishing cross-national collaboration. In particular, in this paper, we will discuss data coming from the Italian class, composed of 31 pupils, located in Avellino, a small city in the South of Italy. This class worked in small groups of 6/8 each, always monitored by at least one adult. Their distance partners were pupils from a 5th grade class located in Athens. In the following we shall describe in detail the activities undertaken by the Italian class in order to illustrate how the interactive dimension of working with foreign partners was triggered from the outset.

The Italian pupils had already been involved for a few years in the Philosophy for Children (P4C) curriculum (Lipman, 1988). The teacher coordinating this curriculum made some changes to the original by adding a moral dimension and concentrating the class activities on reading

fairytale that were relevant from a philosophical point of view. The class's prior experience facilitated the task implementation since the children had already done collaborative work. For example, it was not necessary to give instructions about how to structure group activities, since there was already a routine: each group negotiated the sub-task to be accomplished and specific roles were distributed among the pupils in the group (who was going to write, who was in charge of drawing, who should take notes of the group discussion). Some plenary discussion sessions were also scheduled, with the attendance of adults with different areas of expertise (the English teacher, the social science teachers, the computer expert, an observer, and an expert on the "Philosophy for children" curricula). The adult in charge of guiding the discussions had been specially trained to "mirror" pupil interventions, to summarize what the pupils said, to manage conflicts, and to give space to pupils who showed less involvement.

Since only one computer with internet connection was available, smaller groups (3–5 pupils) took turns working in the computer lab to post and read the material. The class dedicated an entire school year (2001–2002) to this task, working on average 2–3 h per week.

The project was structured in five phases:

- (a) First phase: warming up. This phase is devoted to getting familiar with the philosophically relevant question selected by the teachers as a topic to be worked on during the cross-national project. In this case the topic is "diversity". The topic is assigned to the pupils in terms of an open-ended question: "is it better for everyone to be the same or for everyone to be different?" The pupils collect all kinds of information about this topic and the information is posted in the virtual environment.
- (b) Second phase: selection of philosophically relevant fairytales. The curricula-expert selects a few fairy tales where the topic of diversity is discussed. The fairy tales are read and discussed in class and a summary of the discussions is posted in the virtual environment. Pupils choose one of them, "The ugly duckling" by Andersen, as a model for the next steps. When this fairytale is read and discussed it is clear to the pupils that they have to produce a new story inspired by this one.
- (c) Third phase: starting up a fairy tale. During this phase each of the two classes involved writes the beginning of a new fairy tale. The fairytale does not have to be concluded but the counterpart (the pupils at a distance) will complete and end it. The initial part of the fairytale has to be written in English and posted on the platform.
- (d) Fourth phase: concluding the fairy tale. Each class downloads the initial part of the fairytale from the platform, reads it in class and writes the end. Once the fairy tale has been concluded, it is again posted in the virtual environment.
- (e) Fifth phase: discussing the final draft. During this phase the class works on the final draft of the fairy tale. After downloading it from the web, the fairy tale is discussed and a summary of the discussion is posted on the web.

This type of structure guarantees genuine peer collaboration not only within each class but also between the two classes involved at a distance. Pupils are forced to post their draft "artefacts" and not finished products, thus avoiding the use of the internet as just a window where only final products are "posted" or displayed. In the latter case, in fact, partners at a distance can only act as "spectators" and genuine interdependency is hard to accomplish.

The data collected comprises both the messages exchanged by the children in the virtual environment and the videos related to the work done by the Italian class. It is the latter type of data that is actually the main source of information for this study. In this paper, we focus on class activities, and in particular on the conversations concerning the collaborative writing process.

The whole corpus of data consists of about 8 h of interaction, recorded during six sessions. A qualitative analysis has been carried out on the transcriptions of in-class interactions during the meetings in which pupils were developing the story.

Discourse analysis is used to analyse the discussion (Goffman, 1981; Molder & Potter, 2004). This type of analysis is aimed at tracking the objectives of the discourse and the description of the process of meaning negotiation among participants. The methodological emphasis on discursive interaction fits with the aims of this study to describe how, during the interactive talk within the class, the pupils became aware that they were collaborating with others at a distance.

Videos were transcribed according to the conversational approach (Sacks, Schegloff, & Jefferson, 1974) using the Jeffersonian coding system, reported in Appendix A. Topics of conversation were selected to describe specific ways participants perceive their distance partners, how this perception influences work on the task, and how performing the task implies building intersubjectivity. Three different researchers analysed the videos and extracted all the topics of discussion where the representation of the partners arose during the story-writing process. Materials posted on-line (notes in a forum, text downloaded, drawings) function as corollary in supporting the main analysis performed on the text transcribed from the videos. Recursive readings of the transcripts made it possible to detect different ways in which the distance partner is considered during the creation of the story.

6. Features of intersubjectivity at a distance

One of the main concerns of the Italian pupils was to elaborate easy, clear material for their partners. In fact, the pupils often commented on the level of intelligibility of their story. They were constantly looking for a balance between enabling the Greek group to freely continue the story and hoping the Greeks would follow up the story the way they expected. The fairytale they were creating tells of a duckling that is physically beautiful but so ugly inside that no one wants to be friends with him. One day he meets a peacock who is pleasing both inside and out. This character challenges the logic of the asymmetry between external appearance and inner personality. The two characters are attracted to each other because of their differences: they are curious about each other and each wants to get to know more about the other.

6.1. Creating space for intersubjectivity

The complex structure of the story planned by the children can also be characterized as a meta-textual explicatory system of the text's rationale. The first place where the children articulated and

expressed the inner logic of their project was in the group itself: in their discussion the children tested the consistency and efficacy of their ideas and proposals. They showed the need to establish a shared general plan during the initial phase of the activity, and the decision-making process necessary to define the structure and links of the products. In the excerpt below we observe that a similar attitude is explicitly activated once the distance partners start to be considered as collaborative peers.

(a) Space for collaboration: *where should they intervene?*

Excerpt n.1:

Gianluca: *Possiamo dire che c'è una forte curiosità che lo spinge a conoscerlo però se lasciamo così la storia: la sospendiamo così:: per farla terminare ai Greci.. a loro come possiamo far capire [che deve cambiare?*

Mariangela. *e sì loro possono] rimanere anche così.. che significa?*

Gianluca: *Però la morale::*

Mariangela: *Però tu devi vedere loro come la pensano.*

(...)

Sonia: *Però, però io vorrei capire capire un po' il pensiero un po' il pensiero di questi Greci capito? Perciò avevo fatto la proposta::*

(...)

Sonia: *Io vorrei vedere che decidono*

Mariangela: *Se loro vogliono mettere la morale o no?*

Gianluca: *we could say that there is a strong curiosity that pushes him (the duck) to get to know him (the peacock), but if we leave the story this way:: unfinished this way:: and let the Greek kids finish it. . . how can we make them understand [that he should change?*

Mariangela: *and yes, they could] even stop this way.. what would it mean?*

Gianluca: *But the moral::*

Mariangela: *but you've got to see what they think*

(...)

Sonia: *But, but I'd like to understand a bit the way these Greek kids think, ok? That's why I suggested::*

(...)

Sonia: *I'd like to see what they are going to decide*

Mariangela: *whether they want to put in the moral or not?*

The analysis of the children's discourse shows that while interest in the distance partners is not the topic itself, it is expressed through remarks on how to deal with what the partners might do. How they might intervene in the creation of the story emerges in the talk only after the general outline of the story has been established. It is only at this point that the children start discussing the role of their peers from the other country.

The children are actively defining the space for intersubjectivity by setting the exact point at which the others can start contributing. The issue of whether to include the moral or not is a core

one, as it involves the question of how to help readers/contributors to bring the story to a conclusion which is consistent with what they have envisaged.

Opening up the space for intersubjectivity is also a challenge and children seem to be aware of the possibility of failure in predicting what direction the others may take (*I'd like to see...*). This aspect is stressed because children are collaborating with peers that they do not know at all. Predicting someone else's metaconceptual behaviour is a difficult task if there is not a shared common ground on which to build common activities.

(b) The Integrity of narrative: *Drawing a moral lesson*

Excerpt n. 2:

Antonio: *Maria... Maria scusa
...avevate nominato una morale
all'inizio poi voglio capire qual è
questa [mora: morale?]*

Mariangela: *Appunto!]*

Sonia: *Noi veramente:: ci la:
lasciavamo il punto interrogativo a
loro [i Greci]*

Gianluca: *Noi stavamo] trovando un
collegamento alla loro morale:: cioè::*

Sonia: *Per capire: per capire se loro
contano solo sull'esteriorità o anche
sull'interiorità.*

(...)

Gianluca: *Però se noi facciamo
capire la morale all'inizio non ha più
senso: non ha più senso farla
continuare ai Greci.*

Antonio: *Maria... Maria sorry you
mentioned a moral at the beginning,
then I want to understand what
this[mora:: moral is?]*

Mariangela: *Exactly!]*

Sonia: *We actually:: we le:: were
leaving the question to them [to the
Greek children]*

Gianluca: *we were trying] to find a
connection to their moral:: that is::*

Sonia: *just to understand if they
count just on outward appearance or
also on inwardness.*

(...)

Gianluca: *but if we let them know the
moral from the very beginning it
doesn't make sense: it doesn't make
sense to let the Greeks continue it*

As Bruner points out (2002), a story reflects the narrator's perspective and this provides the integrity of the narrative as such. In collaborative story-writing, the integrity of narrative is a crucial aspect as it deals with the ability of both groups of children to develop a common metaconceptual awareness of the main rhetorical aims underlying the story.

The story as it is outlined by the Italians seems to call the reader's attention to the balance between outward appearance and inward nature which could also be interpreted as the "moral of the story". It is on this specific issue that pupils are developing intersubjectivity. This also affects the integrity of narrative and makes it possible to outline a story in which actors and events should follow a certain logic, or rather, a moral.

The discussion also concerns the aims of collaborating as such: what is the purpose of letting the Greek peers continue the narration? Collaboration seems to be intended as a major task and this puts the integrity of the narrative on a secondary plane. Coordinating possible perspectives is defined (by Gianluca) as the first aim of the activity they are jointly carrying out.

(c) Providing a context for characters' life: *ensuring the story's integrity*

Excerpt n. 3:

Sonia: *Però dovremmo far capire: però dovremmo far capire che::*

Gianluca: *Però dovremmo avviarli punto e basta*

(...)

Antonio: *Appunto questa: (si riferisce alla sua storia alternativa rispetto a quella creata dal gruppo) è un avvio un avvio su questa strada.*

(...)

Sonia: *L'unica cosa che dobbiamo far capire è che il pavone e l'anatroccolo cioè: nonostante siano: [di carattere opposto...]*

Gianluca: *Fanno amicizia]*

Sonia: *E fanno amicizia... poi vediamo loro cosa decidono.*

Sonia: *But we should make it understood that::*

Gianluca: *we should give them the beginning and nothing more*

(...)

Antonio: *Exactly this (referring to his alternative story which is not consistent with the one created by the whole group) is a start in that direction*

(...)

Sonia: *the only thing we should do is try to make them understand that even though the peacock and the duck have completely [different personalities...]*

Gianluca: *they become friends]*

Sonia: *and they become friends... then we'll see what they decide on that.*

Bruner (2002) stresses that in a narrative situation one of the crucial points is constituted by the characters and how people act in a predictable way. The consistency of the narrative is ensured by an implicit agreement between the writer and the reader about what characters are supposed to do, and what actions are predictable. Most successful writers play on this aspect to provide unexpected scenarios in their books. Building intersubjectivity also implies, in this kind of task, ensuring the continuity of characters, which implies the need to write a consistent story. The children have to find a good balance between allowing intersubjectivity, which implies leaving room for contributions from others, and avoiding imposing a restricted perspective (*we should give them the beginning and nothing more*).

(d) What is said and what is not said: *Exploring the size of intersubjectivity*

Excerpt n. 4:

Gianluca: (...) *Ma segretamente diciamo che il pavone capisce che lui vuole cambiare quindi non lo diciamo nel fumetto.*

Soni: *E allora diventa già buono?*

Gianluca: (1.3) *No!*

Sonia: *Dobbiamo sì: se: se il pavone capisce che l'anatroccolo vuole cambiare::*

Gianluca: (...) *But secretly we say that the peacock understands that he wants to change so we don't say it in the cartoon^a*

Sonia: *Does this mean that he is already good?*

Gianluca: (1.3) *No!*

Sonia: *We have to yes: if: if the peacock understands the duck wants to change::*

Federica: *Ma lui non lo dice.*

Gianluca: *E ma noi non lo diciamo nel fumetto (...) Capito? (...).*

Mariangela: *Ma come lo fa a capire il pavone che che vuole cambiare?*

Federica: *E perciò loro devono decidere... [capito?]*

Sonia: *E infatti!]*

Federica: *But he doesn't say that*

Gianluca: *But we don't say that in the cartoon (...) Got it? (...)*

Mariangela: *But how does the peacock know he wants to change?*

Federica: *That's why they have to decide [got it?]*

Sonia: *That's right!]*

^a Pupils are preparing drawings to support the story. This was decided to partially overcome the language difference.

This shows that the anticipation of what the partners may do or not do is strongly influencing the story. Will the Greeks pick up the moral they would like to give to the story? Should the Italians give more clear indications about how they expect the story to continue? Some of the pupils (Gianluca) seem to be inclined to restrict the intersubjective space to leave to their interlocutors. Probably this idea is prompted by the desire to avoid the risk that the final story will not be in line with their expectations. But the girls argue that the reduction of intersubjectivity has two consequences: (a) it limits the partners' liberty to choose an alternative ending to the story, which does not seem fair, not part of the "contract" upon which collaboration was established; (b) but at the same time it also questions the integrity of the story. The duck's intention to change is actually in the writers' minds but is not yet expressed by the character in the story ("he doesn't say that"). Intersubjectivity is strongly connected to the commitment toward a real collaboration and to the quality of the plot in the story.

6.2. Intersubjectivity built on partners' ground plan

The task was constructed in such a way that the same process undertaken by the Italians was reciprocated by the Greeks. The Greeks started up a fairytale that was going to be finished by the Italians. Once the first part of the story was posted on the web by the Greeks, the Italians downloaded it and read it in the group with the precise task of writing the concluding part.

Our interest in analysing the discussions occurring during this activity was driven by the following question: would the Italians read the outset of the story looking for intersubjectivity clues? Would they construct a representation of how the Greeks would like them to continue the story – as they had done when they were writing the first part of their story? Would they find hints in the written text on which to build (and perhaps conclude) the process of achieving intersubjectivity that presumably the Greek had started?

The fairytale posted by the Greeks was entitled "The squirrels save the forest" and it tells the story of two squirrels (Athena and Theodore) living in a forest that is going to disappear because the city situated close to it is expanding more and more. The two squirrels find a time machine and they see how devastating the future is going to be for them: the trees will be replaced by cement and of their whole community only two old squirrels will survive. The two squirrels describe to them all the horrible things that will happen and ask them to prevent the disaster.

The following excerpts report the discussions of the Italian pupils while deciding how to continue the fairytale started by their Greek counterparts.

(e) The size of intersubjectivity: *the title as first cue*

Excerpt n. 5:

Antonio: *Non mi va (...) ma voglio spiegare i motivi (...) perché a usa' sempre ste' cose di magia: no:: non perché...*

Mariangela: *Perché la salva il mago la foresta no gli scoiattoli.*

Barbara: *[Vabbè però poi possiamo: (...)*

Antonio: *Eh appunto] perché poi la: perché poi la salva il mago a posta che gli scoiattoli.*

Mariangela: *Eh comunque ha ragione!*

Adulto: *che andremmo contro il titolo?*

(...)

Antonio: *Eh andremmo contro il titolo poi dovremmo cambiare il titolo e allora:*

Antonio: *I don't like it (...) but I want to explain why (...) because always using this magic stuff: no:: not because...*

Mariangela: *Because it is the wizard that saves the forest and not the squirrels*

Barbara: *[Yeah, but we can: (...)*

Antonio: *Right] because then the: because then it's the wizard that saves it instead of the squirrels*

Mariangela: *Eh anyway he's right!*

Adult: *Would we be going against the title?*

(...)

Antonio: *Eh we'd be going against the title and than we'd have to change the title and so:*

From this excerpt it emerges that these pupils perceive the title chosen by the Greeks as a precise indication about how to continue the fairytale. The real question under discussion is how seriously they have to take this indication or whether they can follow a different path (as Antonio points out).

Exploring this possibility means that they are going to build a final product that may not be completely shared because it will not be constructed within the intersubjectivity space that the Greek mapped out for them.

Now the dilemma is: should they feel free to continue the story the way they like or should they take up the cues left by the Greeks? Should they hook up to the intersubjective space started up by the Greeks or should they neglect the cues embedded in the story and build a more "Italian" product?

(f) Working within a restricted intersubjectivity space: *Respecting cues as boundaries*

Excerpt n. 6:

Antonio: *Dal racconto di: dei vecchi: Atena: e Teodoro: no? Gli scoiattoli hanno capito quale sarebbe stata la distruzione quindi mo' (...) le opzioni sono due (1.2) o o: far provare: agli uomini quel che provano gli scoiattoli oppure lasciare che si avveri quel che c'è quel che hanno visto nel futuro.*

Sonia: *[Eh allora e non salvano la foresta scusami?*

Antonio: *From the story of the old squirrels: Athena: and Theodore: right? The squirrels understood how bad the devastation would be so now (...) there are two options: (1.2) either or: let the humans go through what the squirrels experience or let what they saw in the future happen.*

Sonia: *[So then and they don't save the forest, you mean?*

Mariangela: *Eh aspetta] quindi aspetta*

(...)

Sonia: *Se succede quello che: tu hai detto o:: provano sulla pelle o succede quel che deve succedere allora non salvano più la foresta*

Mariangela: *Eh wait] so wait*

(...)

Sonia: *If what you said happens: either:: they go through it personally or whatever has to happen happens then they don't save the forest any more*

The pupils are exploring alternative paths for the follow-up of the story the Greeks sent them. The way the beginning of the fairytale is organized seems already to give many indications about how to continue: the forest should be saved and the savers ought to be the squirrels. The Italians' creativity needs to be constrained into a plot already designed by the first authors. These limitations do not concern creativity alone but also the space allowed for the building of intersubjectivity. The Italians clearly understand the Greeks' expectations about the story and they cannot ignore them. From the outset of the fairytale they received it was obvious that the Greeks had precise expectations about how the story should continue, although there is still space for creativity. The forest has to be saved by the squirrels but the Italians still have to invent how. In fact it is on this aspect that the Italians concentrate, once they decided to take up the indicators set by the Greeks. They come up with the idea of squirrels able to talk to kids and asking their help as mediators to convince the adults not to destroy the forest. With this solution they respected the indications given by the Greeks and yet were able to elaborate a creative story.

It was clear they felt a sort of obligation to follow the various hints embedded in the story.

Why did the Italian pupils decide to follow the indications given by the Greek group? Apart from being a cognitive and social process, does intersubjectivity also give rise to moral and democratic values? An answer to this question may be provided by analyzing the final part of this task: the comments on their fairytale completed by the Greeks.

(g) Evaluating the collaborative work: “*we are happy because...*”

When the completed version of their fairytale appears on the shared virtual environment the Italians are very satisfied by it. In the next excerpt, the children write a message to their distance partners giving their evaluation of the whole process. The message shows the main topics that are conceived by the children as core issues in defining the success in a collaborative writing activity at a distance.

The image of the distance partner is outlined in the message by indicating the possible uncertainty that could have occurred and the surprise in discovering that many points have been shared.

Excerpt n. 7:

We like the story we created together very much. We appreciate the fact that you continued it precisely on the basis of our beginning. It looks like a complete, unique story.

You were very creative! We liked two ideas in particular: the magic flute and Hermes' winged shoes. While we were reading it, we were able to imagine the story very easily.

When we were inventing the beginning of the story, we also thought of an adventurous journey for the two friends.

*We also wanted the duckling to become good at the end, but we decided to omit it at the beginning of the story, otherwise it would soon come to an end.
It looks like as if we all invented the story together from the beginning. We worked as if we were a whole class!*

In the light of this message we can answer the question raised in the previous section: Why did the Italians decide to respect the limits set by the Greeks? That respect implies an expectation of reciprocity: the Greeks would in turn also respect the prompts included by the Italians.

Even though during the preparation of their story the Italian pupils were concerned about not giving the Greeks too many constraints, some indications may anyhow have appeared in the story. In fact we know from the discussion accompanying the writing, that the Italian pupils had precise expectations about the follow-up of the story. For example, the characters they invented had a logic: the diversity of the two main protagonists was intended to bring about a change in the duck. They merely decided not to make this expectation too visible.

The remarks the children make are consistent with what Bruner identifies as the main elements defining a narration. The first element is a congruent continuation (*we appreciate the fact that you continued it. . .*): the children recognise that their distance partners have been able to identify the path of the narrative as they had planned it at the very beginning. The integration of narration has been recognised and the integrity of the narrator is ensured.

The second aspect involves the space for creativity, the open part of intersubjectivity (*You were very creative!*). This kind of remark implies that they really care about the others being free to make their contribution, which should go beyond what the group initially created and not just involve guessing how the story is supposed to continue.

The third issue that the children point out is the integrity of the characters' lines of action (*we also wanted the duckling to become good. . .*). The explanation of the reasons why the story line was left unfinished express the children's awareness of an active strategy of leaving their distance peers enough space in which to achieve intersubjectivity.

Narrative, as stressed by Bruner (2002), is an activity with strong culture-based interpretative foundations that could not be assumed in advance by children in this situation. The message they send to their Greek peers indicates the recognition of a shared cultural basis of the narrative task.

7. Conclusions

A collaborative writing activity has been illustrated in this paper. This type of activity seems not only to be good teaching practice for cross-national collaboration, but also proved to be an elective context for studying the construction of intersubjectivity (Rommetveit, 1976). Writing a part of a fairytale that will be continued by others, and writing a final part of a story started by others seems to require marked coordination at a metacognitive level. The pupils spent a lot of time reasoning about the coherence of the story, its moral, how characters should be portrayed

and what actions needed to be performed. Having partners at a distance forces the participants to more fully exploit metacognitive reasoning, and at the same time requires them to include what the partners may understand and their interpretation of the story. It is within these dimensions that intersubjectivity is built.

In analysing the pupils' exchanges we looked for connections between the collaborative writing process and the construction of intersubjectivity. What expressive skills do pupils activate? How does metaconceptual awareness of communicative aims affect story content? What strategies emerge and are activated for setting up intersubjectivity during the process of distance collaboration?

The excerpts discussed demonstrate that the way the story is structured and the degree of explicitness of the cues embedded in the story, define the boundaries of intersubjective space. Pupils were fully aware of the request to collaborate implied in the task; in fact they were able to share responsibility for the story by finding a balance between leaving (and taking) space for creativity and at the same ensuring the integrity and coherence of the story.

Analysing the group discussion we found many elements of narrative process that are seen by Bruner (2002) as defining what a storytelling activity is. Working on a collaborative task of story-writing has its own rules, which are related with interactive boundaries (here children had only vague representations of their distance peers) and with the rules defined by the specific task that is being carried out (writing a story). As Bruner contends, writing implies awareness of the readers. In our case, computer mediation played an important role in "amplifying" the presence of the remote partners. The pupils we observed were forced to make their perception of their partners explicit, to make deductions about their partners' interpretation of what they had written as well as about the partners' hidden intentions and expectations concerning the text they wrote.

Observing the interactions of the children working on the story, we noticed a striving for intersubjectivity that could be described with the metaphor of "opening windows" in each other's cognitive space (Talamo & Fasulo, 2002). This is a type of operation that people normally do even without being conscious of it. Learning environments are able to play a significant role in this process, they offer a space within which users can present their ideas, learn about others' points of view, reflect upon differences and similarities and find ways for mediated collaboration. All these steps are part of a complex process that highlights the reflective nature of the learning experience.

The research presented here is a contribution to the attempt to understand that collaborative learning deals overwhelmingly with active efforts to build a space for intersubjectivity, which is the space where dialogue takes place.

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Appendix A. Transcription code based on conversational analysis

- ::: the sound that follows is extended (in proportion to the number of colons)
- [starts an overlap between two speakers; the brackets are vertically aligned
-] ends the overlap between two speakers
- (0.2) length of the pause in seconds
- (. .) transcriptions not reported

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