



HAL
open science

POGO Theoretical framwork. Narrative and learning.

Françoise Decortis, Fusai Claudia, Patrizia Marti, Dimitri Mouffet, Luca Petroni, Laura Polazzi, Antonio Rizzo, Frédéric Sanchiz, Berthe Saudelli, Silvia Torsi

► **To cite this version:**

Françoise Decortis, Fusai Claudia, Patrizia Marti, Dimitri Mouffet, Luca Petroni, et al.. POGO Theoretical framwork. Narrative and learning.. Université de Liège (Belgique). 1999. hal-04513399

HAL Id: hal-04513399

<https://hal.science/hal-04513399>

Submitted on 16 Apr 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Narrative and learning
POGO/UL-US/fd-pm/99001/v.1
15 June 1999

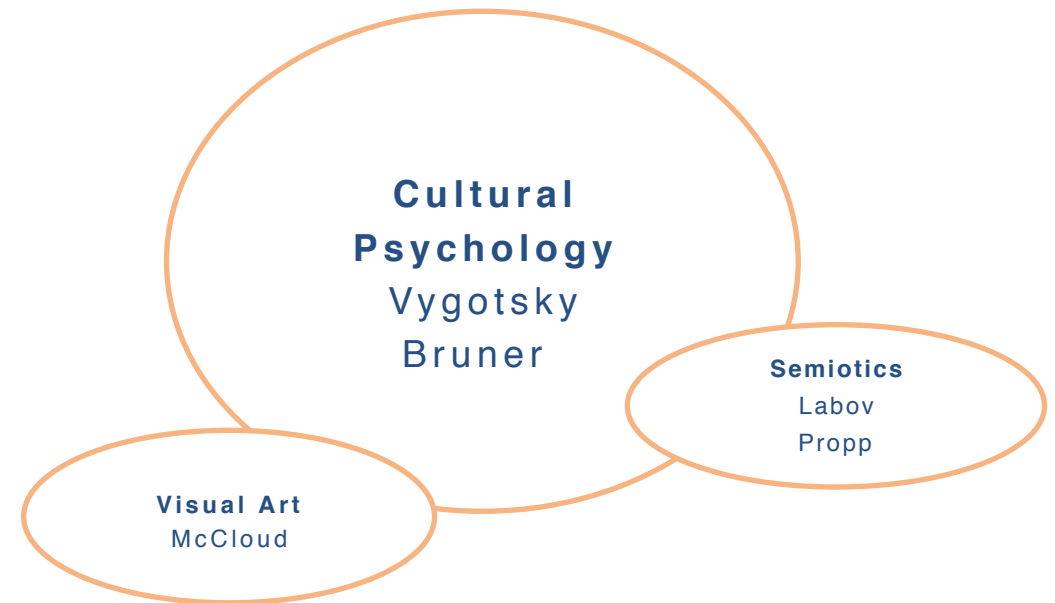
| | |
|-----------|----------|
| Françoise | Decortis |
| Claudia | Fusai |
| Patrizia | Marti |
| Dimitri | Mouffet |
| Luca | Petroni |
| Laura | Polazzi |
| Antonio | Rizzo |
| Frédéric | Sanchiz |
| Berthe | Saudelli |
| Silvia | Torsi |

Table of contents

| | |
|------|--|
| p4 | Introduction |
| p9 | Vygotsky and the cultural psychology |
| p37 | Bruner and the cultural psychology |
| p74 | Evidences from other approaches: McCabe, McCloud, Munari |
| p120 | Conclusions |
| p124 | References |

Introduction

The theoretical framework proposed for POGO is known as Cultural Psychology. This framework has a long history that dates back to the origin of modern psychology (Wundt, 1921). The authors that contributed the most to the approach are Lev Vygotsky, Jerome Bruner, Michael Cole. The contribution of the first two has more distinctive characteristics and so will be considered more in detail than the contribution of M. Cole. However, even though the Cultural Psychology approach will be considered the dominant one, we will not restrict our analysis and proposal to this framework and authors, but we will also consider contributions from other authors and theoretical positions. The considered approaches and their relationships can be summarised in the diagram:



In the following we describe:

1. the theoretical positions of the Cultural Psychology (Vygotsky and Bruner) (chapter 1 and 2);
2. a short outline of the contribution of McCabe, for the cultural development of narrative structures (chapter 3);
3. an interesting insight from the comics literature provided by McCloud (chapter 3);
4. a contribution to the sensorial bases of creativity taken from Munari and his work on design and visual languages (chapter 3).

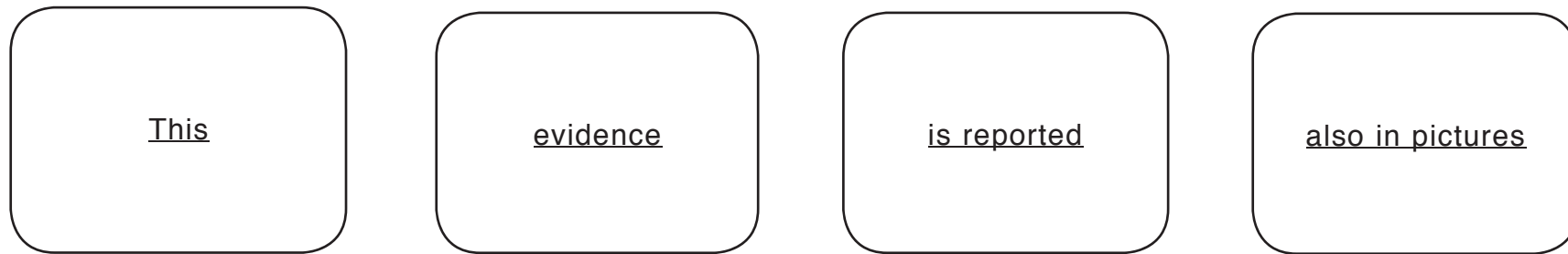
The theoretical position of Vygotsky and Bruner is presented to stress its pedagogical implications. Indeed both authors strive in their writing to make clear that their approach was at the same time a theory of human psychology and a theory of education and cultural development. This made our task simpler. The Cultural Psychology approach is presented by:

Stating the main ideas of the authors by providing a statement or a quotation. The related text is in larger font, usually on the left side of the page

Then, detailing the main

Finally, presenting some exemplifications in

Furthermore, for the pedagogical objectives, we reported examples drawn by our field studies in the Belgian and Italian schools. This serves the purpose to document with contextual evidence how the current educational practices in the school fit with the adopted educational approach.

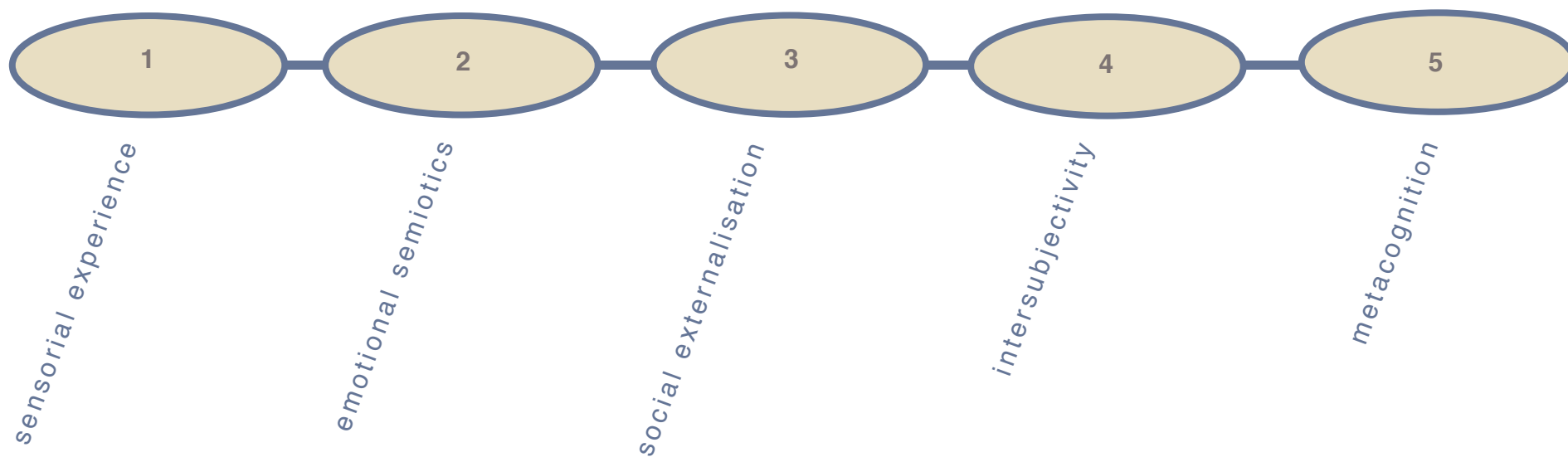


This format allows the reader to go through the document at different levels of deepening. At the top of each chapter, we represented the pedagogical objectives highlighting the ones that are addressed by the different authors.



The same style is also used to document the contribution of McCabe, McCloud and Munari. We reported the work of these authors, even though they do not overtly worked in the Cultural Psychology approach, since their contribution fits nicely with the proposed approach and provides empirical evidence that further substantiate the value of the proposed pedagogical objectives.

Pogo's pedagogical objectives



Vygotsky and the cultural psychology

Lev Vygotsky



The theoretical position of Vygotsky can be summarised in three main assumptions and related principles. It is important to stress that the three assumptions are interrelated and synergetic. That is, no one of the assumptions is prioritary in respect to the other two and each one plays a role in explaining the others.

Lev Vygotsky



1) Higher mental processes in the individual have their origin in social processes - The general law of cultural development

“Any function in children’s cultural development appears twice, or on two planes. First it appears on the social plane and then on the psychological plane. First it appears between people as an inter-psychological category and then within the individual child as an intra-psychological category... but it goes without saying that internalisation transforms the process itself and changes its structure and functions. Social relations or relations among people genetically underly all higher functions and their relationships”

Lev Vygotsky



Human development starts with dependence on caregivers. The developing individual relies on the vast pool of transmitted experiences of others. The law of cultural development describes a process present in all human activities. When beginning an activity, learners depend on others with more experience. Over time, they take on increasing

The routine arrangements and interactions between children and their caregivers and companions provide children with thousands of opportunities to observe and participate in the skilled activities of their culture. Through repeated and varied experience in supported routine and challenging situations, children become skilled practitioners in the specific cognitive activities in their communities. (Lave & Wenger 1991, p. 351)

Expanding Vygotsky's genetic law of development, Rogoff (1990) characterises this process as guided participation. In her cross-cultural studies, she documents children's varying forms of participation with parents and peers. Rogoff found that even when children were not conversational partners with adults, they were involved in the adult world as participants in adult agricultural and household work. She describes the supportive engagement of Mayan mothers with their children as an example of the nonverbal guidance adults give children.

Lev Vygotsky



Thus learners participate in a wide variety of joint activities which provide the opportunity for synthesizing several influences into the learner's novel modes of understanding and participation. By internalising the

The acquisition of language provides another example of a social source of development. Zukow-Goldring & Ferko (1994) and other researchers have shown the close relationship between promoting shared attention between beginning speakers and their caregivers and the emergence of the lexicon. Contemporary research supports the sociocultural claim that the relationship between individuals forms a basis for cognitive and linguistic mastery. This process, whether in the classroom or elsewhere, includes transmission, construction, transaction, and transformation in a continuing, complex interplay (see McCabe in this document).

Lev Vygotsky



2) Mental processes can be understood only if we understand the tools and signs that mediate them. The law of semiotic mediation

Vygotsky named the process of mediation as the principle of extra cortical organisation of complex mental functions. The development and the use of tools extend cognitive processing beyond the biological dimension of the nervous system, giving a crucial role to artificial stimuli in psychological activity. This stimuli may be of a cultural or external nature or produced by human subjects themselves. The embodiment of external representations in psychological activity allows completely new and unpredictable behavioural patterns.

This assumption was directly influenced by the historical materialism. Marx and Engels consider the artifact as an aspect of the material world that has been modified over the history of its incorporation into goal-directed human actions. By virtue of the changes wrought in the process of their creation and use, artifacts are simultaneously

Lev Vygotsky



Semiotic mediation is a key-point to all aspects of knowledge co-construction. For Vygotsky, semiotic mechanisms (including psychological tools) mediate social and individual functioning, and connect the external and the internal, the social and the individual

Vygotsky (1981) listed a number of examples of semiotic means: "language; various systems of counting; mnemonic techniques; algebraic symbol systems; works of art; writing; schemes, diagrams, maps and mechanical drawings; all sorts of conventional signs and so on" (p. 137). Other tools, increasingly recognised in sociocultural discourse -- the paint brush, the computer, calendars, and symbol systems -- are central to the

Lev Vygotsky



In the introduction to Vygotsky's *Thought and Language*, Jerome Bruner (1962) described Vygotsky's view of the role of semiotic mediation:

“He believed that in mastering nature we master ourselves. For it is the internalization of overt action that makes thought, and particularly the internalization of external dialogue that brings the powerful tool of language to bear on the stream of thought. Man, if you will, is shaped by the tools and instruments that he comes to use, and neither the mind nor the hand alone can amount to much.... And if neither hand nor intellect alone prevails, the tools and aids that do are the developing streams of internalised language and conceptual thought that sometimes run parallel and sometimes merge, each affecting the other. (p. vii)”

The role of semiotic mediation and its relevance for the cultural shaping of Man was clearer to the same Bruner 25 year later. In his Prologue to the english edition of the *Whole Vygotsky* he wrote:

“Vygotsky was not only a psychologist but a cultural theorist, a scholar deeply committed to understanding not simply Man, conceived as a solo “organism”, but Man as an expression of human culture. When I remarked a quarter of century ago that Vygotsky’s view of development was also a theory of education, I did not realise the half of it. In fact, his educational theory is a theory of cultural transmission as well as a theory of development. For “education” implies for Vygotsky not only the improvement of the individual’s potential, but the historical expression and growth of the

Lev Vygotsky

1

2

3

4

5

Wertsch (1991) adopts Wittgenstein's metaphor of a socially provided tool kit of semiotic means. Those means and practices, which become internalised and available for independent activity, are critical in supporting and transforming mental functioning. Physical tools are directed toward the external world; psychological tools are directed internally and are appropriated during activity.

Knowledge is not internalised directly, but through the use of psychological tools. Vygotsky's colleague Leontiev (1981) used the term appropriation to describe the adoption by an individual of these socially available psychological tools and he wrote that children cannot and do not need to reinvent the artifacts that have taken millennia to evolve in order to appropriate such objects into their own system of activity. The child has only come to an understanding that is adequate for using the culturally elaborated object in the novel life circumstances he

Leinhardt (1996) in her discussion of teaching instructional explanations of mathematical concepts provides another example of semiotic mediation. In describing the role of representations, she illustrates the concept of "percent" by discussing various representations, such as number lines, circles and squares. Representational activities, whether in the form of inner speech, imagery, or kinetic concepts are linked to culturally shared systems, such as language, and to developmental activities including scaffolding¹ (John-Steiner, 1995).

¹ As first used by Wood, Bruner and Ross (1976), scaffolding is a metaphor for graduated assistance provided to the novice,

Rizzo and Palmonari (1999) provided experimental evidence that long lasting cognitive artifacts such as syllogisms are critically dependent from the kind of external representation that mediate their use; and that a representation specially devised to fit a possible primitive functioning of the brain produces a dramatic improvement in syllogistic reasoning.

Lev Vygotsky



Thus, psychological tools are not invented by the individual in isolation. They are products of sociocultural evolution to which individuals have access by being actively engaged in the practices of their communities. In a recent article, Wertsch (1994) elaborates on the centrality of mediation in understanding Vygotsky's contributions to psychology and education.

“[Mediation] is the key in his approach to understanding how human mental functioning is tied to cultural, institutional, and historical settings since these settings shape and provide the cultural tools that are mastered by individuals to form this functioning. In this approach, the mediational means are what might be termed the "carriers" of sociocultural patterns and knowledge.” (p. 204)

The diversity of these means and the psychological tools that they represent are of special interest to educators who work in multicultural settings and with children who have special needs. In an issue of the *Educational Psychologist* devoted to Vygotsky's ideas, Boris Gindis (1995) describes the emphasis Vygotsky placed on the variety of psychological tools in approaching the study of children who had special physical or mental conditions. "Vygotsky pointed out that our civilization has already developed different means (e.g. Braille system, sign language, lip-reading, finger spelling, etc.) to accommodate a handicapped child's unique way of acculturation

Lev Vygotsky



These acts of representation are embedded in social practice and rely on socially developed semiotic means. Ecology, history, culture, and family organisation play roles in patterning experience and events in the creation of knowledge (John-Steiner, 1995). For example, the tasks confronting children, such as learning to talk, to walk, and to attach meaning to their experiences are reflected in cognitive strategies, derived in part from the culturally patterned environment into which they are born. Their thought is shaped by the prevalent methods of physical and economic survival, by the language and visual symbols used by their people, and by socially ordered ways of parenting. Some children who are born into tribal or agricultural communities spend many hours strapped to the back of their mothers and other caregivers. In this position, they observe and represent the life of their community in a different way than children who are placed in cribs and playpens (John-Steiner, 1995)

Representational activities and the sociocultural theory of semiotic mediation are fundamental to Vygotsky's concept of internalisation and the transformation of interpersonal processes into intrapersonal ones. Vygotsky used the concept of semiotic mediation to explain qualitative transformations in the human mind historically, ontogenetically, and microgenetically. The role played by semiotic mediation in the development of higher psychological processes provided a central focus for Vygotsky's research. The concept of semiotic mediation is essential to the sociocultural view that

Lev Vygotsky



3) Mental processes can be properly understood only considering how and where they occur in growth -
The genetic method

“We need to concentrate not on the product of development but on the very process by which higher forms are established... to encompass in research the process of a given thing’s development in all its phase and changes – from birth to death – fundamentally means to discover its nature, its essence for it is only in movement that a body shows what it is. Thus the historical study of behaviour is not an auxiliary aspect of theoretical study, but rather forms its very base.”

Lev Vygotsky



Vygotsky used genetic analysis which examines the origins and the history of phenomena, focusing on their interconnectedness, to develop his theoretical framework and guide his research. In describing this approach he emphasised the need to concentrate not on the product of development but on the very process by which higher forms are established.

According to this perspective, learning and development takes place in socially and culturally shaped contexts. Historical conditions are constantly changing, resulting in changed contexts and opportunities for learning. For that reason, there can be no universal schema that adequately represents the dynamic relation between external and internal aspects of development (John-Steiner & Souberman, 1978).

Vygotsky argued that psychological systems that unite separate functions into new combinations and complexes arise in the process of development.

An example of this unification is the linking of spoken and written language into a new and broader semiotic system. When it was discovered that it was "possible to represent the sounds of language using marks in clay just as it is possible to represent objects" (Cole, 1990, p. 95), a qualitative transformation in the development of humanity occurred. The unification of separate functions represented in literacy also provides insights into the relationships between individual and social processes

Lev Vygotsky



In his studies of disabilities, Vygotsky analysed the unification of separate physiological (anatomical, biochemical, and evolving neural) and psychological processes. His collaborator, neuropsychologist Alexander Luria (1973, 1979) examined cognitive functions in brain damage at different levels of analysis. This led to the concept of functional systems which is particularly useful in the examination of phenomena at the interface of neural and cognitive processes. Functional systems are dynamic psychological systems in which diverse internal and external processes are coordinated and integrated. These systems reveal a variety of characteristics including the use of variable means or mechanisms by individuals to perform particular tasks. In order to succeed when faced with new learning challenges, these individuals reorganise

Functional systems allow to view writing, charting and signing as part of a dynamic system instead of splitting them into visual and verbal approaches.

Within genetic analysis the use of functional systems provides a framework for representing the complex interrelationships between external devices, psychological tools, the individual, and the social world. Vygotsky used the sociocultural framework based on the three central tenets described above -- cultural sources of development, semiotic mediation, and genetic analysis

Lev Vygotsky



The three main assumptions are operatively summarised in the concept of Zone of Proximal Development (ZPD).

Lev Vygotsky



ZPD: It is the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.

According to Vygotsky education precedes development. Things that a pupil can make in cooperation today, will be done by the child alone tomorrow. So, the only good form of education is the one which anticipates and leads development; it shouldn't be addressed as much to mature functions, rather than to those which are growing.

Lev Vygotsky



In contrast to prevailing theories of his time which dichotomised learning and development, viewed as external and internal processes respectively, Vygotsky (1978) looked at their unity and interdependence starting from a child's birth.

"Our hypothesis establishes the unity but not the identity of learning processes and internal developmental processes. It presupposes that the one is converted into the other. Therefore, it becomes an important concern of psychological research to show how external knowledge and abilities in children become internalised." (pp. 90-91)

He thus criticised theories such as Piaget's, in which "maturation is viewed as a precondition of learning but never the result of it" (p. 80) and developed the following position:

Learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers....[L]earning is not development; however, properly organised learning results in mental development and sets in motion a variety of developmental processes that would be impossible apart from learning. Thus learning is a

Lev Vygotsky



Ann Brown and her collaborators (1993) have developed and implemented educational programs based on this concept of learning. They suggest that the active agents within the zone of proximal development "can include people, adults and children, with various degrees of expertise, but it can also include artifacts, such as books, videos, wall displays, scientific equipment and a computer environment intended to support intentional learning" (1993, p. 191). In expanding the zone of proximal development to include artifacts in addition to people, Brown integrates Vygotsky's analyses of tools and symbols with the roles played by the participants in the learning process. One of the important features of Brown and her collaborators' work is the examination of the way "divergent classrooms can become learning communities -- communities in which each participant makes significant contributions to the emergent understandings of all members, despite having unequal knowledge concerning the topic under study" (Palincsar, Brown, & Campione, 1993, p. 43). They examine the role of "reciprocal teaching," an approach in which "students and teachers take turns leading discussions about shared text" (p. 43), to see whether structured dialogues foster a learning community. The teachers in these studies have a changing role. They share with the students the well-defined tasks of questioning, clarifying, summarising, and predicting in order to construct text-based knowledge. These studies exemplify two themes in sociocultural approaches to classroom learning and teaching -- (1) the implementation of an educational program that allows for or encourages the co-construction of knowledge and (2) the analysis of this learning that contributes to our understanding of classroom learning from a sociocultural perspective. Collaborative learning plays an increasing role in these as well as many other innovative classrooms (see also Bruner in this document).

Lev Vygotsky



Creative Imagination and Narrative

Vygotsky sees the education as the fulcrum of the cultural evolution and sees the education process centered around the psychological processes of creativity and imagination. It is in this context that Vygotsky copes with the narrative phenomena.

Vygotsky opposes an evolutionist definition of Creativity and Imagination to the common sense definitions. The imagination, is present in all - without any exception - aspects of cultural life, and it makes possible artistic, scientific, and technical creativity. For Vygotsky imagination is not psychologically opposed to reality but it's closely interrelated

Lev Vygotsky



Reality and imagination are related in,
at least, four relations/ laws:

Lev Vygotsky

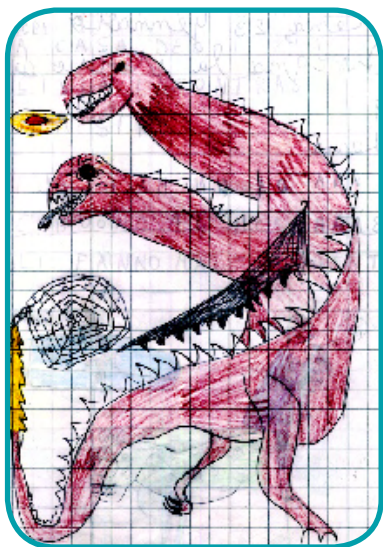
1

2

3

4

5



6 years old children of the Tozzi School have been requested during an activity to draw a monster they were scared of. One of them produced the drawing of the following monster.

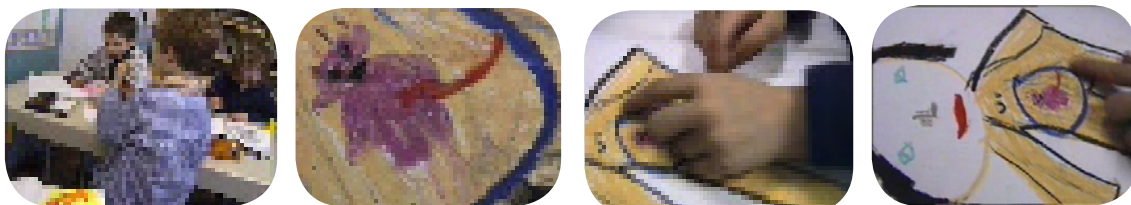
Such a monster doesn't exist in the reality, but its features (dinosaur head, snake tail, spider web...) are combined to create something completely new.

I) The Creative activity of imagination directly depends on the richness and variety of the previous experience made by an individual, because fantasy's constructions are composed of the material supplied by experience.

The combinatory activity of our brain is not something absolutely new in comparison with its conservation activity (memory): it's a further complication of the first one. Fantasy is not antithetic to memory, but the first one is supported by the second one and imagination disposes traces of events in new forms –



Siena . At the beginning of the activity called "Maialino Lolo" (Lolo the piggy), children of Tozzi school in Siena have been requested to re-tell the beginning of a story the teacher told them during a previous lesson. Talking about the house of Lolo the Piggy, Irene, a 6 years old girl, said: "I can imagine how is Lolo's house". Her companion said also: "Me too!" Obviously they had never experienced Lolo's house: they could only imagine it by combining elements coming from their everyday life.



Bruxelles: an activity called "Slices of life", was structured in Hamaide School as follows: children were requested to imagine how they were in their mummy's tummy. They first had to draw their story and then to dictate it to the teacher. In the final step, every child told his story to all the others. Obviously they could not remember what they felt during their mummy's pregnancy. So, the story they created were constructed on the basis of imagination, recombining material they experienced during their life. Just to provide an example, we report the transcription of a dialogue between a teacher and a child concerning his feelings in his mummy 's tummy. Child: "It was fun". Teacher: "ah yes... And why was it fun?" Child: "I was happy because it was hot...."

Lev Vygotsky

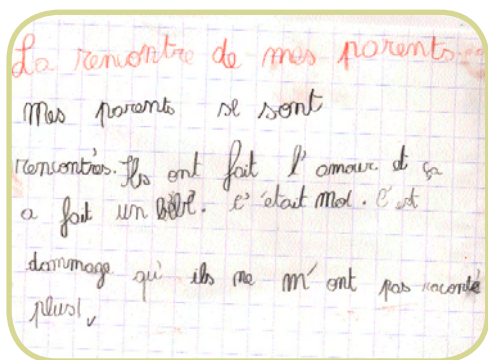
1

2

3

4

5



"How my parents met.
My parents met. They made love and this made a baby. The
baby was me. What a shame that they didn't tell me more."

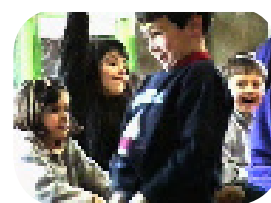
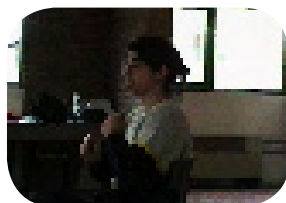


Bruxelles: "La rencontre de mes parents".
During another stage of the "slice of life"
activity, children were asked to write a story
about how their parents met. In this case their
imaginative activity was mediated by the reports
of the real event that they heard at home.

II) The second form of relation between fantasy and reality is a different and more complex one which doesn't occur between the elements of fantastic construction and reality, but it occurs between the ready product of fantasy and any complex phenomenon of reality.

For instance, the construction of French Revolution or Sahara desert through other's memories, stories, studies.

This is a form of relation which is made possible only thanks to other's experience, to the social experience. Knowledge/Memory as imaginative construction of reality through social practice.



Siena: During a theatre activity about the four elements of the world (earth, air, water and fire), the teacher explained the children how these elements can be found in our body:
Teacher: "Where is the earth in our body? Do you remember in the last lesson we said that in our body we can find air, that comes in and out of our body when we breath..."
Children:.....
Teacher: "We talked about the fire also, that is our energy.... And do you remember what did we say about the water?"
Children: "Yeas... It is in our tears!!! In our pee!"
The knowledge children have about this kind of information is totally derived from the social mediation, represented in this case by the teacher.

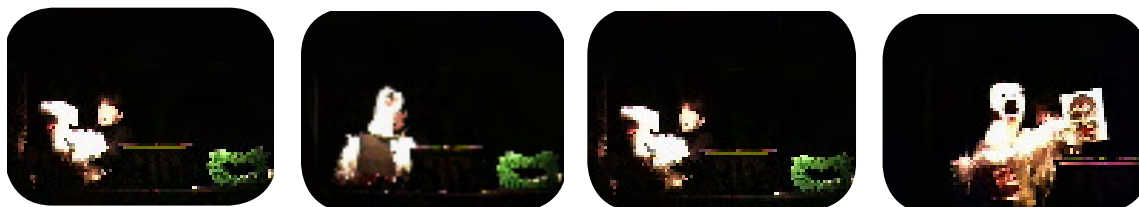
Lev Vygotsky



III) The third form of relation between imagination and reality is the emotional one. In this relation we can distinguish two different aspects:

Law of the common emotional sign

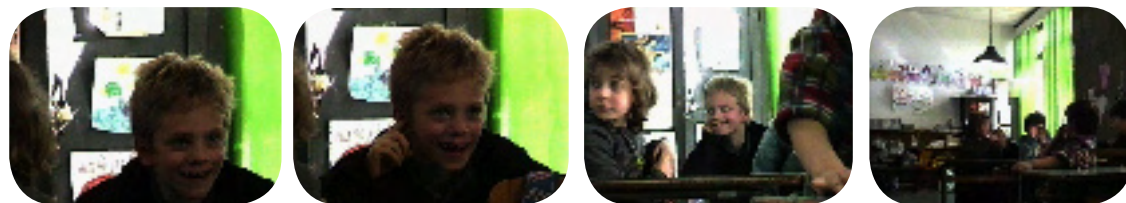
Fantasy's images supply an inner language to our feeling. Our feeling selects elements which are isolated from reality and it combines them together in a relationship which is internally conditioned by our state of mood, instead of combining them according to the external relationship or the logic of images in themselves (social semiotic). (e.g. red-hot, blue-cold, sad-car, happy-smell)



Siena: during a puppet show the main character (Mother goose) presented the image of an Ogre
Mother Goose: (Looking at the image and keeping it hidden to the kids) "Let me see him...
Arghhh ... He is terrible!!! Are you sure you'd like to see him?"
Children: "yeahhh!!!!"
Mother Goose: (Still keeping the image hidden) "Really sure?"
Children: "YEAHHHH!"
Mother Goose: "Ok, if you want.... One, Two, Three... (showing the ogre image) Here you are!"
Children (scared): "ARGGHHHHHHHHHHHH!"

law of reality of the Imagination

Each form of creative imagination includes affective elements. This means that each construction of fantasy influences our feelings, so even if it's not a construction which corresponds to reality, the feeling evoked by it is an effective one, really lived, such that it involves completely the individual.



The day after the puppet show, children worked at school with the teacher on the stories they heard during the show. One of them started to talk about the ogre: he said that he has had nightmares during the night. Some other children said that they have also had bad dreams about the ogre. An imaginary character has become for them enough real to let them awake for a large part of the night.

Lev Vygotsky

1

2

3

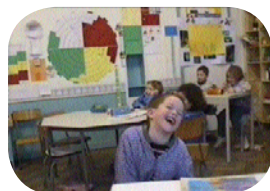
4

5

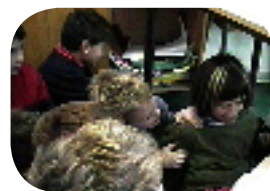
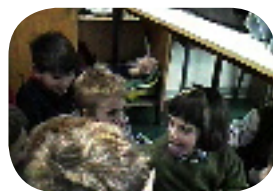
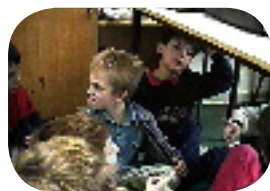
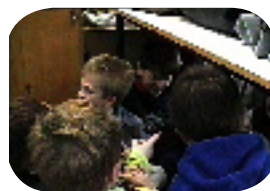
IV) A construction of fantasy may constitute something effectively new, something which has never existed before in the experience of a man, and which doesn't correspond to any object/concept really existing: yet once that this crystallised image of imagination is externally embodied, once it's concretised, once it has become a thing among other things, it really starts to exist in the world, and to act on other things.

This is true for physical objects (devices, machines, etc.. Who can say how many imaginations were needed to transform the plough from the object we had originally in the past to the object that we have today?), as well as for ideas and emotions (concepts, ideas, feelings... Tolstoj, to explain Natasha, quoted Puskin who said to one of his friends while they were chatting about his characters: "You can't figure out what trick Tatiana played me: she got married. I really didn't expect this from her!").

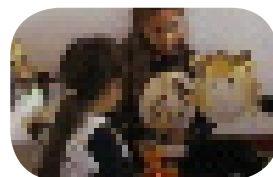
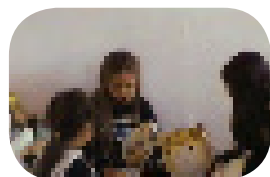
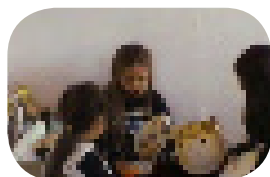
This aspect of relation between reality and imagination closes the circle opened by the first relation: from real world to imaginary back to real world.



Bruxelles: "le zizou". In one class of Hamaide school, while reading children stories about their birth, the teacher read a child sentence: "I came out from my mother's zizou". Although the word "zizou" is a free and new adaptation of the child's slang word "zizi" (male sex), all the class-mates started to laugh. This is an example of how a linguistic creation can have effects on the real world.



Unisi: "Tu fai la morta". After one activity at school some children were requested to create a play about the story they just finished to work on. One of the little boys started to assign roles for the play. He said to a girl: "Since you are a girl, you have to play the role of the dead women". The girl answered: "I do not want to be the dead women". After that the two children started to quarrel. Also in this case the construction of their fantasy had effects on the reality: if the girl had accepted the role she should have behaved as a dead and she did not want to!



Pistoia: Fare le Maschere. At the "Oral Tradition Laboratory" in Pistoia, after a fairy-tale telling, children were asked to produce objects they will use later on for a theatre play. Some of them produced some masks. As soon as the children constructed the masks they started to play with them as they were puppets: the product of their imagination had become concrete, a thing among other things.

Lev Vygotsky



According to Vygotsky there are thousand ways to combine reality and fantasy: play, narrative, songs, theatre, pictures, and more in general art and science are expressions of the same phenomenon of combination of the four laws explained above. To each law it is possible to associate some pedagogical aims.

Lev Vygotsky



Relationships I and II: Expand as much as possible the sensorial experience of children within each type of relationships: e.g. I: "Elements" are real but the relationship among elements is "imaginary" (as, for instance, in tales); II: "Elements" are real and also the relationship among elements is "real" (as, for instance, in story/geography).

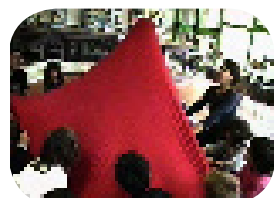
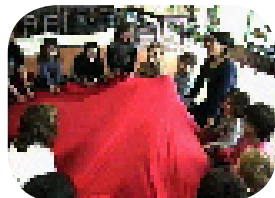
It is extremely important to:

- Allow comparison and experimentation among the relationships I and II.
- Stress the social origin of relationship II (social origins or "Trust, Lies").



Bruxelles: "la naissance". Different activities on the thematic of birth have been organised in Hamaide school. Some of them (see pictures) consisted in letting children sensorially experience the moment of their birth through psycho-motor games. Other ones, like measuring the tummy of a pregnant mother, involved children in more "scientific" experiences about the same theme.

This is an example of how children "material for imagination" can be enriched through the involvement in different kinds of experiences.



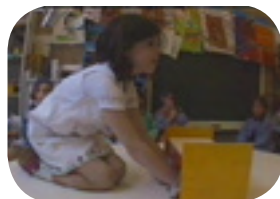
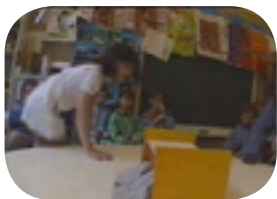
Siena: "Terra". During a theatre activity in the school, pupils were requested to pretend to be a little seed and feel how it is to grow up. To experience this feeling, children were disposed in circle. They had to hold an elastic cloth. One after the other, each child was going under the cloth. They had to stand up, winning the resistance opposed by the elastic cloth. At the end of the activity they had to report how they felt to be a seed. Teacher: How do you feel under the "ground"? Child: It was ticklish? Teacher: Ticklish? Child: Yes, ticklish!

That is a good example of a rich sensorial experience.

Lev Vygotsky



Relationship III: Allow children to develop emotional knowledge (e.g. empathy) through the law of the common emotional sign and the law of reality of imagination. This objective has many implications that have not been explored in any details specially for what concerns its social nature.



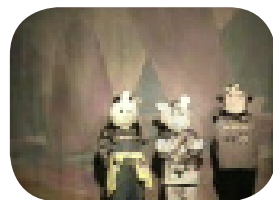
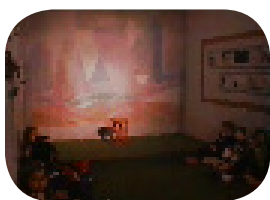
Bruxelles: "froid piquant". Kindergarden teachers adopt a practice consisting in making children explore the content of different "surprise boxes" through the touch. Each box contains an object with particular sensorial properties (cold, pointed, soft,...). Children are then asked to associate the sensations they experienced with a feeling ("to feel aggressive", "to be nice", ..) in order to share it with the rest of the classroom. As the teachers themselves affirm this is a way to enrich children "sensorial competence" and to provide them with a "sensorial vocabulary".

Lev Vygotsky

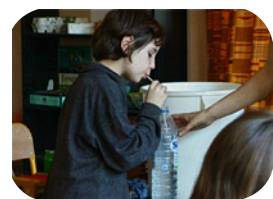


Relationships IV: It is of extremely important to allow children to complete the circle of creative imagination that started from sensorial knowledge of reality and that had to go back to reality through the active modification of the environment produced by the embodiment of the imagination. The process of embodiment concerns not just the material/technical aspects but also the emotional/experiential ones (e.g. metaphor).

"... a creative personality is prepared through the creative imagination that in the present expresses itself and becomes concrete" (Vygotsky).



Pistoia: One example of an activity that completes the circle of creative imagination is represented by the activity carried on with the children of the primary school in the Laboratory of Oral Tradition in Pistoia (Tuscany). Here the activity begins with the creation of an immersive atmosphere: children leave out their shoes, they seat on the ground, the lights are shut off and the storyteller seats over a stage. After the children listened to a fairy tale they are requested to perform an activity and to create themselves, inspired by the story, a new product. It can be a mask to play a drama, "magical" objects constructed with recycled materials, or an illustrated book. In such a way their imagination become a thing among other things.



Bruxelles: "Rythm lab". Another example from Bruxelles is the rythm lab activity, where children created a new object (a bottle filled with different kinds of material) and used it as a musical instrument to inspire and accompany the story creation process. In this case a product of magination (a "musical bottle") becomes real and modifies the way the activity is carried out in the classroom.

Bruner and the cultural psychology

Jerome Bruner



"It is culture that shapes human life and the human mind, that gives meaning to action by situating its underlying intentional states in an interpretive system. It does this by imposing the patterns inherent in the culture's symbolic systems - its language and discourse modes, the forms of logical and narrative explication, and the patterns of mutual dependent communal life".

"The central concept of a human psychology is meaning and the processes and transactions involved in the construction of meanings".

Bruner, 1990

Jerome Bruner

1

2

3

4

5

Folk psychology?

First we will examine what Bruner intends by a "folk psychology" and second why we believe that this theoretical framework is relevant to the narrative development. By folk psychology Bruner means a system by which we organise our experience, knowledge and transactions with the social world. All cultures would have a folk psychology (called also a folk social science, or common sense), which comprises a set of descriptions about how we work, how our mind and others are like, what are possible modes of life, how our actions are situated. This folk psychology is learned early through interactions with our culture, our family, our school. Folk psychology has some of its roots in the work of anthropologists (Lévis Strauss, 1962, Hutchins, 1983).

Bruner defines several premises for folk psychology: we have beliefs and desires. We believe that the world around us has a certain kind of organisation, we give values to things that are more important than others. The world around us gives a context in which our acts are situated and the states of the world may justify our beliefs. We may give meanings to some of the events and recognise that others find different meanings. Therefore "in folk psychology people are assumed to have world knowledge that takes the form of beliefs, and are assumed to use that world knowledge in carrying out any program of desire or action". And also "this reciprocal relation between perceived states of the world and one's desire, each affecting the other, creates a subtle dramatism about human action which also informs the narrative structure of folk psychology".

Bruner sustains a need (1) to understand how children's experiences and acts are shaped by their intentional states, (2) to understand how the form of these intentional states is realised through participation in the symbolic systems of the culture.

Jerome Bruner



For Bruner narratives have several features (1990): "sequentiality", "factual indifference", "unique way of managing departures from the canonical".

Jerome Bruner



1) sequentiality

A narrative is constituted of several elements: a sequence of events, mental states, happenings involving characters or actors. These constituents do not have a meaning of their own. Their meanings are given by their places in the whole sequence, that is the plot. The act of "grasping a narrative" is dual: the interpreter grasps the narrative plot to give a meaning to its constituents, and he relates these constituents to that plot; the plot configuration must be extracted from the succession of events which change, these changes revealing hidden aspects of the situation and the characters (Ricoeur, 1983). A narrative could also be considered as a structure where time has a meaning. Narrative decomposes time by the unfolding of crucial events with a start, a middle and an end. The temporal sequence helps to guarantee the meaning such as "the king died, the queen mourned". But there are other ways to express personal durativeness such as flash backs, flash forwards,...

Jerome Bruner

1

2

3

4

5

2) narrative can be “real” or “imaginary”

Bruner (1990) observes a common form (a sequential form) in empirical (real) and imaginary storytelling. He attributes this shared structure not so much to a traditional heritage as to a "human predisposition" (p. 45). From the pre-linguistic age individuals are endowed with the capability to grasp meaning which evolves with language acquisition. In this perspective narration appears as a "symbolic system", an interpretive scheme, which mediates between reality and signs, as well as Peirce's "interpretant"(p.149).

According to Bruner the story has a structure that is internal to discourse. The sequence of its sentences determines its overall configuration or plot. "It is this unique sequentiality that is indispensable to a story's significance and to the mode of mental organisation in terms of which it is grasped. Efforts to dethrone this 'rule of sequence' as the hallmark of narrative have all yielded accounts of narrative that sacrifice its uniqueness to some other goal".

Bruner accepts that tradition plays an important role in giving narrative its structure, which does not mean, like Jung suggests, that we store archetypal stories or myths. He means that there is a readiness to organise experience into a narrative form. Narrative consists in reporting things that occur in our daily life in the order as they occurred. This confers drama its nature given that it imitates life².

Jerome Bruner

1

2

3

4

5

In Hamaide school some narratives refers to real situations, such as children's life at schools (e.g. the story of the pigeon house) or at home while other ones are imaginary (e.g. the story of the dark so dark hanted castle). However some stories are somewhat in-between reality and imaginary; 'how I felt in my mummy's tummy' stories are about the child's life but are created on an imaginary basis.

The drawings and the texts below, are two examples of children's narrations of how they were conceived.



ma fécondation
 je n'étais pas encore
 née et je m'existais pas
 encore. quand un spermatozoïde
 de mon papa est
 entré dans l'ovule de
 ma maman, j'ai été
 fécondée. Mon ovule s'est
 divisé et ça a fait
 un bébé, c'était
 moi!



les spermatozoïdes de
 mon papa sont rentrés
 dans l'ovule de ma
 maman. Il n'y en a
 qu'un qui est entré. et ça m'
 a formé moi!
 ma fécondation.

Jerome Bruner

1

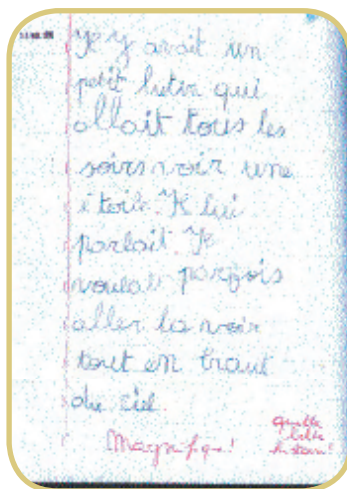
2

3

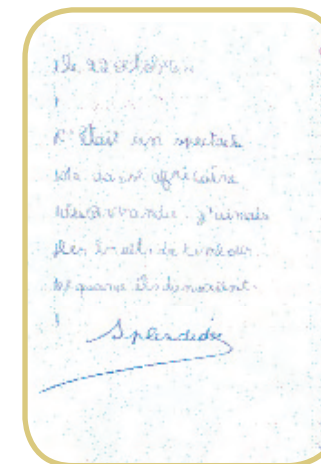
4

5

In this drawing, a child from Hamaide School tells an imaginative story. "Once upon a time there was a little imp who every night went to see a star. He uses to talk to it. He wanted to go and to visit it in the sky"



In this drawing, a child from Hamaide School tells a story about an african dance show from Rwanda. He expresses that he liked the drum sounds and dances.



Jerome Bruner

1

2

3

4

5

3) Narration as a mean of "forging links between the exceptional and the ordinary".

Bruner argues that narrative occurs when beliefs are violated and that a meaning is given to these violations; "the function of the story is to find an intentional state that mitigates or at least makes comprehensible deviation from a canonical cultural pattern". The narrative capability of dealing simultaneously with canonicity and exceptionality allows to negotiate meanings, a point seen as essential in the conduct of a culture.



Siena: "L'albero dei pesci". In the first class of the Tozzi school, pupils were requested to write down a story starting from some strange pictures the teacher distributed to them. One of the pictures represented a strange tree with fishes instead of fruits. Eva, 6 years old, wrote: "Once upon a time there was a fisherman that liked to catch fishes. One day he pulled too strongly and all fishes went on the tree."

For a narrative to be worth telling, it has to go against what is expected, to break a canonical scenario or to deviate from the legitimate. Conventional and canonical narratives are source of boredom. This is why the narrator through language and literary invention (or, like at Hamaide, children choosing a story style such as realistic, fantastic, fictional, comic or adventure

Jerome Bruner

1

2

3

4

5

There are two ways in which narrative plays a role in the organisation of experience: the framing or schematising and the affect regulation.

Framing allows to construct the world, to represent its flow, to segment events that occur in the world. The main form of framing is under a narrative form. Mandler (1984) shows that things that are not structured under a narrative form will have less chance to be memorised. But framing is also social (Bruner here quotes the work by Shotter and Bartlett), "designed for the sharing of memory within a culture rather than simply to ensure individual storage". According to Bruner, Bartlett takes also into account the cultural dimension of remembering, what Bartlett (1932) calls the "social psychology of remembering". Bruner quotes Bartlett:

"Every social group is organised and held together by some psychological tendency or group of tendencies, which give the group a bias in its dealings with external circumstances. The bias constructs the special persistent features of group culture, and this immediately settles what the individual will observe in his environment and what he will connect from his past life with this direct response. It does this markedly in two ways. First, by providing that setting of interest, excitement and emotion which favours the development of specific images, and secondly, by providing a persistent framework of institutions and customs which acts as a schematic basis for constructive memory".

Concerning the second point, Bruner after Bartlett insists that memory schemata are under the control of an affective regulation and attitude. When we try to remember something, most often the first element that comes to mind is an affect or a "charged attitude", something unpleasant or embarrassing or something exciting. The affect is somewhat encoded with the memory slot and the recall is done on the basis of this attitude. And Bruner continues saying that "the very processes involved in having and holding experience are informed by schemata steeped in folk psychological conceptions of our world- the constituent beliefs and the larger-scale narratives that contain them in those temporal configurations or plots to which reference was made

Jerome Bruner



In Bruner's theoretical framework (1996) the child is a "thinker". He is at the center of the educational process, his point of view has to be recognised as central. The teacher/educator should understand what the child is thinking.

Jerome Bruner

1

2

3

4

5

The child is not ignorant and he is not even an empty recipient, but he is able to reason, to give meaning by himself and through the discussion with others. The child is not less able than adult to concentrate on his own thinking and to correct his ideas by thinking about it.

Like the adult the child is considered as building more or less coherent "theories" about the world and also about his own thought and the way he behaves and functionates. These naive theories are confronted with the ones of his parents and teachers not through imitations or through didactic instructions but through discourse, collaboration and negociation. According to Bruner (1996), Feldman (1991), Stock (1983), knowledge is what is shared inside the discourse within a "textual community". Truth comes from

Jerome Bruner



Educational objectives: the educational approach that comes from this vision of the child is said mutual and dialectic; its interest focus on interpretation and understanding rather than on the acquisition of factual knowledge. The approach also emphasizes the active role of the child in the learning process, given that it aims at promoting a reciprocal understanding between the teacher and the child.

Jerome Bruner

1

2

3

4

5

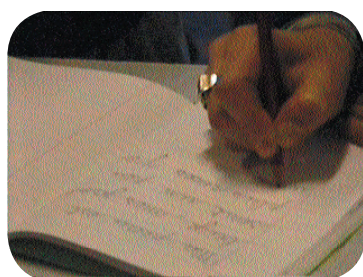
These issues are illustrated by observations made at Hamaide school . At the end of the “Slice of life” activity, the teacher showed to children the different narratives created by each child on the theme 'How I feel in my mummy's tummy'. The discussion was orientated toward the consciousness that from a same thematic every child could give a personal and different meaning to one life event, and that is important that each child recognises that the others could have their own point of view that could be different from his own.



Teacher: When you listen to all these stories what would you like to say?
 Child: The drawings are nice and well written and it is nice to see all the drawings
 Teacher: Why is it nice to listen to the others stories?
 What's strikes you? ...
 Henrick ...
 Child: on a same theme 'me in my mummy's tummy' all the children has told a different story

Teacher: yes on a same subject each of you has told a different story and this is why it is interesting, and all the stories are nice as well as all the drawing

One child came to the teacher for the narrative dictation about "How I feel in my mummy's tummy". The child told the story and the teacher wrote it in the rough book. The dialogue between the teacher and the child has been about the expression of the child feeling, emotions (feel), sensoriality (hear, see) and imagination (imagine).



Teacher: "Imagine yourself when you were in mummy's tummy and that you are talking to yourself, imagine yourself at that time, what you see, what you hear, what you think in your head? Imagine how are you.
 Child: My skin is beige, my legs are a little bit more rose, I have few hairs.
 Teacher: And what do you feel?
 Child: What does it mean to feel?
 Teacher: To feel... what you think inside for example if you were happy, if you were sad, if you were hungry?
 Child: It was fun.
 Teacher: Ah yes... And why was it fun?
 Child: Writes
 Teacher: Why do you think that you were happy? It is wonderful to be happy ... why ...?

Jerome Bruner

1

2

3

4

5

Intersubjectivity

Bruner (1996) makes the distinction between internal and external educational frameworks. The “external” theories focus on what the adult can bring to children from outside the child in order to develop their learning. The “internal” views focus on what the child can do, what he knows he is doing, and on the means by which the learning could be installed from his intentional states.

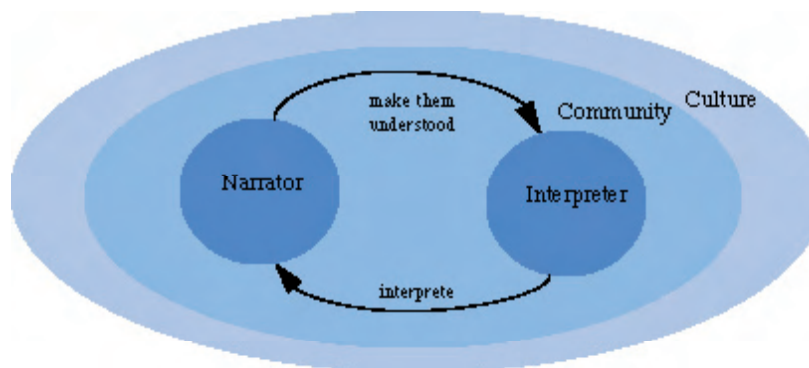
Therefore educational objectives aim to support the child in his understanding process. Understanding is elaborated and supported through discussion and cooperation. The child is encouraged to express his own point of view in order to confront it with the ones of others. Such an educational framework focus on the mutual exchange: through discussions and interactions beliefs and ideas could evolve toward a mutual understanding. Children and adults may have different view points and they are encouraged to share them.

The way the child learns to interpret what others are thinking, feeling, their intentions and moreover what they are meaning when they express themselves is crucial.

Jerome Bruner



Our observations in Hamaide school indicate that children learn to build stories to make them understood by other children (the figure illustrates the interrelationships between narrating and interpreting), and this might require from the teller side to understand what others are thinking. "Good" stories should fit the teller intentions. Absurd stories could be created if this is the intention of the narrator. Therefore the narrator makes several choices when he builds stories such as the story style (realistic, fantastic, fictional...); the story type (comic, adventure...); the text presentation (through expression, vocabulary). A "good" story is also produced when the listener/reader /interpreter is able to understand the teller intentions. Our observations also show that through narratives children learn to capture the attention of the audience, to move the listener/



Jerome Bruner

1

2

3

4

5

Intersubjectivity as the added value of Bruner's theory

With respect to the Vygotskian concept of zpd Bruner explores more in depth the nature of the social interactions that support children's development.

Intersubjectivity can be considered as a kind of leit-motif of the Bruner's mature research.

The role of human interaction in the development of mind is in fact a concept that get more and more explicit and crucial in its scientific carrier and become, in his latest writings, the link between theory and practice, between developmental psychology and education.

Bruner's interest for the transactional dimension can be related to his encounter in late 50's with sovietic psychology and in particular with Vygotsky's theory on mind development.

The role that Vygotsky ascribed to culture and symbolic systems in the human philogenetic and ontogenetic evolution, became at the same time a central assumption and a starting point in Bruner's work.

As Olga Liverta Sempio (1998) points out, if for Vygotsky the process of knowledge construction is based on the interaction between subject and object, where the object is intended both as people and symbols, Bruner stresses the relational aspect of the subject-object binomial, focusing on the transactional dimension of the knowledge building process.

Bruner (1997) clarifies this question by affirming that in the concept of ZPD (Zone of Proximal Development), which is the point of the Vygotskian framework where the importance of intersubjectivity is more evident, the mechanisms underlying the mutual exchange between "teachers" and "learners" are not explicitated.

The analysis of these mechanisms is one of the main topics of Bruner research: what happens in our minds when we interact with others? Which are the mental processes that regulate mutual exhchange? In other words, how does intersubjectivity works?

Jerome Bruner

1

2

3

4

5

“intersubjectivity is the way humans come to know each other’s mind”

(Bruner 1996, p. 12)

In contrast with what he calls "scientific psychology", Bruner aims at recovering the study of mental states, for they play a constitutive role in the meaning making process.

While most of modern cognitive science made of computability a fundamental requirement for the study of human mind, Bruner's folk psychology is interested in those situated, cultural and intersubjective phenomena that resist to objective, verifiable and predictive interpretations.

Excluding those aspects of human nature from the psychological research should mean to create an artificial separation between manifest and measurable human behaviors (like action) and their internal components.

It should be like affirming that "what people do is more important, more "real" than what they say" (Bruner 1996, p.17).

Bruner highlights the "canonical relationship" between saying and doing: "the meaning placed on most acts by the participants in any every day encounter depends upon what they say to one another in advance, concurrently, or after they have acted."(p. 18).

It is to say that every linguistic act, in Austin's terms, implies an interactive process of meaning negotiation between the participants. Its interpretation depends on the cultural setting and the context where it takes place and on the mutual exchanges that occur between the individuals involved.

Jerome Bruner

1

2

3

4

5

Intersubjectivity as a human predisposition

Meaning construction is an activity of negotiation that starts in early childhood and characterises the whole human life.

According to Bruner (1990) human beings have a kind of innate readiness to intersubjectivity that manifests itself in children's pre-linguistic phase of development and evolves through social experience.

In his studies about language acquisition (1989) Bruner analyses some forms of proto-conversation between children and care-givers that occur in the context of very regular and codified structures of interaction (formats).

The first one is looks' co-orientation: mother follows child's look and names the objects toward which the look is directed. By monitoring child's eyes' movements, she facilitates the development of his ability to recognise her own center of attention.

Around the second semester of child's life the child-mother interaction has already achieved a good level of synchronism which regulates the turn taking process and the coordination of attention.

More complex forms of communication as ostensive reference and attention's request start to manifest themselves during the first year of child's life.

In this pre-linguistic phase, the interaction is guided and facilitated by the adults' structuring an supporting activity (scaffolding).

Adults sensibility is fundamental in particular for the development of children's intentionality.

Care-givers behave as if the child was able to understand their intention, as if he had a theory of mind.

In this way the child gradually learns that his behaviour is the object of others' interpretation and that it can affect others' behaviours.

Even if he doesn't attributes to the pre-linguistic child a conscious intentionality, Bruner (1990) considers our early ability to have meaningful exchanges with other people as a "primitive form of folk psychology", "a set of predispositions to construct the social world

Jerome Bruner

1

2

3

4

5

Narrative as the primary form of meaning construction

Narrative's structures are the first linguistic forms that children acquire and use to construct meaning.

If the ability to interact with others is a biological endowment and the representation of others' mind a natural need, we have to analyse how this competence works, what are, according to Bruner, the mechanisms that regulate the interaction between subject and object (intended as people) in the construction of meaning.

Language is for Bruner the mean to fulfill pre-linguistic communicative needs. Its acquisition is partly motivated by the exigence of mediating our contact with others.

This pragmatic function of language distantiates Bruner from the Chomskyan theory of LAD (Language Acquisition Device): the way children approach linguistic forms is not syntactical but contextual. They look for expressive means that allows them to better organise their experience in the world.

What are these expressive means, these units of signification that represent children's priorities in language acquisition?

Bruner's radical hypothesis is that "it is the 'push' to construct narrative that determines the order of priority in which grammatical forms are mastered by young child" (1990, p.77)

Agentivity, sequential order, canonicity/exceptionality relationship and narrator's

QuickTime™ and a
Nessuna Compressione decompressor
are needed to see this picture.

QuickTime™ and a
Nessuna Compressione decompressor
are needed to see this picture.

QuickTime™ and a
Nessuna Compressione decompressor
are needed to see this picture.

QuickTime™ and a
Nessuna Compressione decompressor
are needed to see this picture.

Siena: "il bruco". In Tozzi school children were requested to segment in four sequences a little story about a bug. The first sentence concerned the bug's house, so the teacher tried to help one of the pupils in identifying it asking: "where does the bug lives?". Children, completely disoriented by the task, started to tell a new story about the bug house.

In this case the attribution of meaning was mediated by a narrative creation.

Jerome Bruner



Even if, at a first look, the relationship with intersubjectivity is not evident for the four terms, we have to remind that for Bruner each of them play a role in the negotiating dimension of meaning making. Agentivity is related to the interpretation of others' intention; sequentiality is the cultural requirement for narrative's interpretability; the presence of a trouble between some elements of a real or fictional story is the initiating element of narration ("the function of the story is to find an intentional state that mitigates or at least makes comprehensible a deviation from a canonical cultural pattern", Bruner 1990, p.50); narrator's perspective makes every story the object of different interpretations. With its four components narrative constitutes for the young child the privileged and primary way to enter in a culture. It provides him with a powerful tool to share his experiences with others and to deal with physical and social world .

Jerome Bruner

1

2

3

4

5

Narrative as a tool for interpretation.

The narrative form allows children to express their own theories of the world, to represent others' and to negotiate them.

Bruner relates intersubjectivity with our interpretative activity.

We do not dispose of analytical tools to describe our and other's mind; our mental activity is a "mystery", not accessible to introspection.

Nevertheless, people, both in the scientific community and



Bruxelles: "Spontaneous role games". A typical manifestation of children's early ability to represent others' mind is their spontaneous practice to play role games.

In this example, Hamaide kindergarten children are portrayed while playing sellers' and buyers' roles in an everyday-like commercial exchange.

Jerome Bruner

1

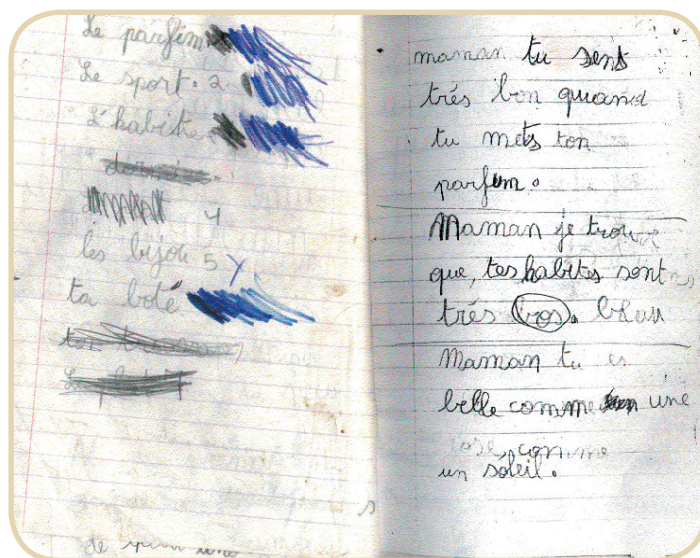
2

3

4

5

Bruxelles: another example of how children enter in other's mind is the poem a little girl wrote for her mother. As it is showed in the left page of her notebook, a preliminary step of this activity has been that of compiling an "hit-parade" of the mother's favourite things.



perfume
sport
clothing
jewel
beauty

"Mummy, you smell very well when you use your perfume. Mummy, I find that your clothes are very beautiful. Mummy, you are beautiful like a sun."

If on one side (specifically in relation to physical world) we try to find general and predictive rules to explain reality, on the other one we produce more "soft" hypothesis about how the things work, specially if our object of interest are human activities.

Bruner calls "explanative" the first approach and "interpretative" the second one.

According to Bruner, "interpretative narrative [is] an appropriately disciplined mode of thought for construing the present, past and possible human condition" (1996, p.100).

In particular it concerns the way children learn to interpret others' intentions, feelings, and goals, an ability that education should improve.

Jerome Bruner

1

2

3

4

5

Intersubjectivity as object and instrument of a valid educational framework.

According to Bruner children's intersubjective competence should be improved both through a reflection on the interpretative and negotiating nature of meaning construction (epistemological side) and through a cooperative organisation of the learning process (methodological side).

While educational programs devote a great attention to the scientific paradigm, the interpretative one is often neglected.

Bruner first pedagogical claim is to devote more attention, more time, more efforts to the development of children's narrative competence, in order to provide them with rigorous and powerful instruments to deal with the social world ("our present, past and possible condition").

But the narrative competence, which is essential to interpret reality, can be acquired only through collaboration.

Intersubjectivity becomes in Bruner's pedagogical framework, both the object and the instrument, at the same time an epistemological and a methodological issue.

Stories are always expression of a point of view, of one of the possible interpretations of reality.

Through collaboration children can negotiate these interpretations with others in order "to achieve not unanimity but more consciousness" (Bruner 1996, p. 97).

Jerome Bruner



Bruxelles: "Petit chaperon rouge. In this activity children discussed and negotiated among them the meaning they wanted to give to symbolic representations of "Little red riding hood" characters and props. They collectively invented a story based on this given meaning. In one group the story was prouced in a chain. In another group, three sub-groups of three or four children built their story by negotiating its sequence. After that the different stories were read and shared in the classroom.



Jerome Bruner

1

2

3

4

5

Such a vision of education implies a model of the "child as a thinker". It assumes that the child has his own ideas, beliefs and theories of the world and of himself and that he is able to share them with others.

This is for Bruner the fundament of what he calls "internalised" educational models. With respect to the externalised ones, which are interested in the way adults can transmit knowledge to children, these pedagogical frameworks emphasise the internal/external relationship of the learning process. Children are not seen as "tabula rasa" where teachers have to record information ("declarative knowledge" model) or as imitative machines that can be trained to practical tasks ("know how" model), but as active human beings, capable of thinking and modifying their thoughts through reflection and collaboration.

Even if knowledge transmission and practical training play an important role in child's development, traditional educational models should be thought in order to stress the active participation of children in the learning process.

The means Bruner envisages to fulfill this requirement are, once more, related to intersubjectivity.

The interaction between children and adults (teachers) should be transformed from a monodirectional transmission into a mutual exchange.

The class should become a learning community, where teachers and children cooperate in order to build a "shared frame of reference".

Learning should not be considered anymore as an acquisition of fix and objective truths, but as a process of meaning negotiation.

Teachers' role should be that of "helping children to grasp the distinction between personal knowledge, on the one side, and "what is taken to be known by the culture, on the other".

Bruner identifies in the intersubjective approach four directions of research: 1) intersubjectivity, that is the way in which children come to know each-other's mind; 2) theories of mind, that relate to the children's ability in understanding others' intentional states; 3) metacognition, that is what children think about their own way of thinking; 4) cooperative learning, which concern the way children

Jerome Bruner



Bruner sustains that education should contribute to help the child to become more 'metacognitive', to be more aware and conscious of the way he learns, thinks and organises her/his experience and negotiate meaning by narrative, e.g. what I do when I memorize something or remember something?

Jerome Bruner

1

2

3

4

5

For Bruner metacognition is a fundamental mean to "create alternate ways of conceiving reality making" (1996). Bruner argues that, "we live most of our lives in a world constructed according to the rules and devices of narrative". That's why educational initiatives should promote not only metacognitive ability about rational thought but also the creation of a "metacognitive sensitivity" to endow children with a "consciousness to what narrative construal imposes on the world of reality it creates".

Bruner explained that metacognition can be facilitated by "externalizing" mental work into a more concrete activity. "Externalised" tasks can lead children to "think about their own thought", because "it embodies thoughts and intentions in a form more accessible to reflective efforts". (1996).

According to Bruner, metacognition on a collective class work can be produced by a discussion on a class activity report which "highlights "overall" rather than individual progress". Collective works "create shared and negociable ways of thinking in group".

Education aims also to help children to make the differences between personal knowledge and what is prescribed knowledge according to the culture. Hamaide teachers' comments indicate also that narratives should be personal and should not reproduce what they consider as "raw cultural material". For example, if a child is invited to tell a story and if he talks about the movie "Titanic", the teacher will encourage him to rely on his personal experience and events to build his story. The following extract also illustrates how a child thinks about the way he builds his story.

Jerome Bruner

1

2

3

4

5

In these examples, children from Hamaide School observed the scenary of the tale “Three little piggies” and invented their own stories using finger puppets made by themselves. After the creation phase they were asked how they got their ideas, to explain how they created their stories, how they built their puppets.



Teacher: We would like to know how you get your ideas?
 Child: it is not me that got the ideas...
 Teacher: Ah ... who then gets the ideas?
 Child: It is me that draw the ideas.
 Teacher: You draw your ideas...
 Child: Yes
 Teacher: And before drawing them how did you get them? How did you find them?
 Child: Euh ..If I want to have an idea for later on... The time I make the puppets for that story ...then I go to the scenery... The puppets and then I draw a picture...And after the drawing ... I look very carefully at the drawing...



Interviewer: You say that when you think about a story you put it into your head...Is it right?... And when you put it into your head how do you do this?
 Child: I... when I look carefully at the drawing... I can do it afterwards...But I need to look at it carefully... If I do not look at it long enough I will not be able to do it. If I look at it only for two minutes after I can't do it... because it is not enough...
 Interviewer: Mmh then you need time ...you need to look at it for long...
 Child: Like that I would be able to remember tomorrow if I like... even look at it tomorrow
 Interviewer: Do you still see it today... this drawing ...? you see it into your head ...?
 Child: I see it in my mind
 Interviewer: and what do you see in your mind ?
 Child: I... I see in my mind
 Interviewer: you see... what do you see?
 Child: I... it is written end of the story.
 Interviewer: And before end of the story ...what is it written ...? Is it or not colourful?
 Child: It is painted in grey

Jerome Bruner



Within this educational framework, Bruner suggests four directions of research; these four directions have in common the objective to understand how children organise their own learning, remembering and thinking.

Jerome Bruner



Research topics:

1) The way the child learns to read other's mind. This ability is acquired very soon through the child's and mother's pleasure in eye-to-eye contact and through the development of their joint attention on common objects. It is also crucial in the kindergarten classes where the child and the teacher exchange their points of view.

Jerome Bruner

1

2

3

4

5

Research topics:

2) The way the child grasps others' intentional states, beliefs, promises, desires, their "theories of mind". How children progressively understand how other acquire or abandon different mental states.



Bruxelles: Children live the same experience and observe the same events happening (for example an african music concert, a visit to a maternity hospital), and from their observations they build different narratives. Hamaide teachers use frequently this contrasting method to raise the consciousness of the children. Children give their own accounts of their observations and activities. By contrast with the accounts of other children, they develop their consciousness of own differences and specificities.

Teachers from kindergarten and first grade insist on the importance for children to listen to what the others are expressing and to develop their attentional abilities to others. In these pictures the teacher reads each child story to all the children. She asks the child to tell his intentions, feelings and emotions

Jerome Bruner



Research topics:

-
-
- 3) The study of metacognition. It is the way children think about learning, remembering, thinking. The way children reflect on their own cognitive operations changes their mental strategies.

Jerome Bruner



Research topics:

-
-
-
- 4) The study of co-operative learning and problem solving. It focuses on the way children explain and revise their beliefs through discourse.
-

Jerome Bruner



Technological and educational implications of Bruner's folk psychology.

Jerome Bruner

1

2

3

4

5

It is important:

to help the child to become more 'metacognitive', to be more aware and conscious of the way he learns, thinks and organises his experience and negotiate meaning by narrative.

- POGO should provide the child with the opportunity to develop his metacognitive abilities.



Jerome Bruner



It is important:

to support the child building his fantasy and world model and the elaboration of the understanding process through discussion and cooperation.

- POGO environment should sustain and enhance this discussion between children and between children and adults and should contribute to support the cooperative mechanisms



Hamaide school children in the activities "Three little pigs", "Slice of life", "Little Red Riding hood"

**Evidences from other approaches:
McCabe, McCloud, Munari**

McCabe, Labov, Propp



Universal versus cultural structure?
Narrative: a cultural product.

McCabe, Labov, Propp



Children's stories are cultural products and their forms differ from culture to culture. A good story for one storytelling tradition is not necessarily a good story for another one.

The study of children's stories among various cultures demonstrated the absence of a universal grammar of narratives. Indeed, narrative structures differ from one culture to another.

Studying development over a range of ages and ethnicity's has lead McCabe(1997) to propose a broad and not culturally biased definition of narrative: "Narrative is a linguistic cross-road of culture, cognition, emotion and serves the dual functions of sense-making and self-presentation".

McCabe, Labov, Propp



McCabe's studies have shown that American children, around 6, have developed the kind of oral narrative preferred by their culture, in general, and by their family, in particular. They give an abstract of what they will talk about. They refer to a set of events with a culminant point they evaluate. Then, they explain how the problem gets solved. But this kind of narrative (called "classical story") is not necessarily the one elicited and preferred in other

Nick (European, 6 years old):

Hi Sue. I broke my arm. I was well, um, well, um um, the day, 2 days ago. I was climbing the tree and I, well see, I went towards the low branch and I and I got caught with my baving suit? I dangled my hands down and they got bent because it was like this hard surface under it? Then they bent like in two triangles. (Interviewer on phone responds)

Yeah, but luckily it was my left arm that broke.

(Interviewer: who was home?)

Only my mom was, my mom was in the shower, so I screamed for Jessica, and Jessica goed told my mom (Interviewer: Did you see Dr Vincent?)

I don't have Dr Vincent. I had to go to the hospital and get mm, it was much more over worser than you think because I had to get, go into the operation room, and I had to get my, and I had to fall, fall, fall asleep, and they bended my arm back, and I have my

McCabe, Labov, Propp



Japanese children do not organise their narratives around a singular plot but they combine in a same story similar events which occurred at different moments and places even when they are asked one specific event. They show regularity in the number of lines given to each topic. This kind of structure can be

Shun (Japanese):

As for the first shot, got at Ehime.
Hurt a lot. As for the second shot,
knew would hurt. Didn't so much.
The next one didn't hurt so much either.

McCabe, Labov, Propp

1

2

3

4

5

Afro-American children talk mostly of their past experience developing longer stories than European (American). They combine similar experiences in one story unified by a topic, improvising on a theme. Some of these children tell "topic-associating-story", narrative that are organised around a series of implicitly linked anecdotes or episodes happening at different times to different people and that does not adhere to a simple linear pattern of

Vivian (African, 9 years old):

We went to the dentist before
And I was gettin' my tooth pulled
and the doc, the dentist said, "Oh, it's not gonna
hurt."
and he was lying to me.

It hurt.
It hurted so bad I could gone on screamin even
though
I think some...
I don't know what it was like.
I was, in my mouth like, I was like, "Oh that hurt!"
He said no, it wouldn't hurt.

'Cause last time I went to the doctor, I had got this
spray.
This doctor, he sprayed some spray in my mouth
and my tooth appeared in his hand.

He put me to sleep,

and then, and then I woke up.
He used some pliers to take it out,
and I didn't know.

So I had told my, I asked my sister how did, how did
the man take it out.
And so she said, "He used some pliers."
I said, "Nah he used that spay."
She said, "Nope he used that spray to put you to
sleep,
and he used the pliers to take it out."

I was like, "Huh, that's amazin'."
I swear to God I was so amazed that, hum...
It was so amazing, right?
That I had to look for myself,

And then I asked him too.
And he said, "Yes, we I used some pliers to take out
your tooth,
and I put you to sleep, and, so you wouldn't know,
and that's how I did it."

And I was like, "Oooooo."
And then I seen my sister get her tooth pulled.
I was like, "Oooooo"
'Cause he had to put her to sleep to, hmm, to take
out her tooth.
It was the same day she got her tooth pulled.

And I was scared.
I was like, "EEEhhmmmm."
I had a whole bunch cotton in my mouth, chompin '
on it.
'Cause I had to hold it to, hmm, stop my bleeding.

I, one day I was in school.
I took out my own tooth.
I put some hot water in it the night, the, the night
before I went to school.
And I was taking a test.

And then it came out right when I was takin', when I
finished the test.

McCabe, Labov, Propp



Portoricain children, instead, have a distinct narrative style often not understood by persons who do not share the same cultural background. They do not tell sequences of actions as other children do but they focus on descriptive information often related to members of their family and their personal relationships. South-American Telenovelas are good examples of narratives where familial relationships are privileged to the

Carmen (Portoricain, 7 years old):

Well I was in the hospital, in the Mass general Hospital-there where my uncle Roberto works. That he has two children who are not twins but who are only two children because first Robertico was born, who is named after his dad, and then Christopher was born... But my uncle Roberto have a dog who is one of those German ones, who is already 2 months old. And now, because the mom's name is Butterfly. She is with a man whose name is, who is my uncle whose name is Juan. And by chance he gave him that dog. But look that dog, he bits Alex because he runs and bits much. Here he bit him, and he bites him even in the

McCabe, Labov, Propp



The study of children's stories among various cultures demonstrated the absence of a universal grammar of narratives. Indeed, narrative structures differ from one culture to another.

These cultural differences, have been observed in Northern America, between children from different cultural backgrounds. So, it is not difficult to imagine similar or even greater differences between children coming from the same cultures but living in different countries.

Narrative structure may also differ within a same culture. For instance, the taste of European and European North American for detailed descriptions has evolved with time and are not appreciated anymore as it was in Victorian times. It should also be acknowledge that within the label of culture such as European-American, Afro-American

McCabe, Labov, Propp



Children's narrative is the result of a specific socialisation process. "Storytellers are made not born". Children acquire the capacity to produce monological stories by anticipating parents' comments or questions. Parents' guidance into narrative is quite specific: their types of interview predict how the children will use later on some narrative components with other people.

The various storytelling traditions shape children story forms through the pattern of elicitation proposed by the parents when children build stories. For instance, Japanese mothers ask less questions on the "who", "when" and "where" compared to American mothers. Japanese mothers ask questions more frequently to their child, which aim to shorten her/his contribution. Indeed, verbosity in the Japanese culture is avoided as much as possible

McCabe, Labov, Propp



Parents' pattern of elicitation of stories varies not only from culture to culture but also within one culture and these patterns shape the way in which children tell stories. For Instance, McCabe, within American families, has found a general correlation between the production of children "classic narration" and the extent of topics proposed by their parents. The more parents expose their children with a great variety of topics,

McCabe, Labov, Propp



More specifically, when parents encourage their children to build stories, they stimulate differently questions on thread or on description of the "who, what, when and where". According to the input given by parents, children will spontaneously include this kind of information with other persons later. Moreover, it has been demonstrated with American children that the introduction of orientation elements (who, what, where, when) are linked to school success.

Concerning narrative components such as causality, McCabe showed that the way in which the parents include psychological motivation of the characters with their children predicts the way children will include this information in their story with other adults. There is a correlation between the causal language of the mother and the use of this type of language of the child, one year later. Reported speech analysis have shown that children whose parents pay more attention to reported speech, talk more spontaneously of past events in their narratives elicited by experimenter.

These results can be easily related to the Vygotskian notion of Zone of Proximal Development (ZPD) that stands for "what the child can do today in collaboration, he/she will do it later alone". Children build their story (narrative structures) by anticipating the questions and comments they received previously. For instance, the more they are asked to respond to orientation questions



Siena: The first graders of Tozzi School were asked to segment in 4 sequences a short story the teacher wrote on the blackboard. At the beginning children were quite confused since they did not understand what the teacher was requesting to them. The teacher questioned them to trigger the right answer without saying explicitly that each sentence written on the blackboard corresponded to a sequence. After some troubles to identify the first segment, one pupil understood that he only had to read the right sentence on the blackboard. He inferred from the teacher previous comments, which was the "hidden" question they were supposed to answer in order to perform properly the sequences.

McCabe, Labov, Propp



Children learn how to remember rather than what. If the form of narration seems to be the result of socialisation, children contribute in different ways to the contents. They select the events they will discuss with their parents. When they discuss something repeatedly they often introduce new elements in their discourse. Children contribute also a sense of who they are and the particular role they have

McCabe, Labov, Propp



Occidental narrative structure: context and problem solving.

In the Western culture children meet the expectation of what is a "good story" when they tell their listener who and what is involved, and when things take place. They also must build a series of events up to a high point, and conclude with the

McCabe, Labov, Propp



Hudson & Shapiro (1991) identified three types of narrative: Personal narratives, scripts and fictional stories. This typology could be, in some way related to the relations between reality and imagination identified by Vygotsky and stated previously in the report. The elements of the stories are taken from the experience but they may be combined either as in reality to form the "personal narratives" or creatively to become "stories". But this typology does not consider the stories of real events that are not directly experienced by the individuals but experienced through

According to Labov (1972), a narrative fully developed contains six parts (1972): abstract, orientation, complication, evaluation, resolution and "coda". A full narrative "starts with an orientation, continues until the action of complication, is suspended in the focus of evaluation before the resolution, it concludes with the resolution, and it brings the listener to the present time with coda":

The complication section is the only obligatory component of a narrative and consists of a series of narrative clauses giving the event sequence. Usually the complication shows a turning-point, a crisis or problem, or a series of these. It is basically the content of the narrative.

The macrostructure of Narrative (Labov, 1972)

| <u>Structures</u> | <u>content</u> |
|-------------------|--|
| Abstract: | What was this about? |
| Orientation: | Who, when, what, where? |
| Evaluation: | Meaning of the action. Narrators' attitude. |
| Resolution: | How the situation was solved? |
| Coda: | The end. |

McCabe, Labov, Propp



The following example corresponds to a personal narrative created by a 6 years old child (Hamaide School). Parents explained their children how they met before and children created their narrative.

How my parents met

My parents met. They made love and they conceived a baby. That was me. It's a pity they didn't tell me more!

This personal narrative was created after the visit of a maternity hospital (6-7 years old child):

We went to the maternity hospital to see Hamilton.

We saw Hamilton's umbilical cord. I liked the maternity hospital and the room in which there were incubators.

Manuel, a 6 years old boy, from Tozzi School wrote in his story notebook:

"My name is Manuel and this day I was in the sport field to score my first goal. Instead I got hurt".

McCabe, Labov, Propp



A script is a general description of what usually happens in an event. Scripts are reported in the timeless present tense (in contradiction with the common definition of narrative) and often use (in English) the general pronoun “you” (Hudson & Shapiro, 1991), and perhaps in French the pronouns “tu” and “on”.

This example is a script narrative related by a 7 years old child to an adult during a writing activity. The theme of the script is the use of "Eureka" (a vocabulary guide):

"You look inside, first you look at letters here. Then, for example, you look for "mummy" then you look for the letter M, then you try to find in lines and then you see the numbers and you turn the pages and then you find".

McCabe, Labov, Propp



A story must develop a plot in a fictional way and usually includes use of the past tense, introduction of fictional characters, and use of traditional fairy-tale beginnings and endings.

Despite some variations, there is considerable agreement on the minimally acceptable characteristics of the structure for single episode stories which must include (Hudson & Shapiro, 1991). A first orientation clause is situated at the beginning of the narrative and gives the context (main character and place). A second one introduces new characters and prepares new events. Initiating events are goal-directed actions. It follows a problem or obstacle to

Golden Curly Hair and the magic ring

Golden Curly Hair goes to the library. While falling through toilets, she falls into a trap. She was looking for a ring. She found it among jewels. But the ring was magic. The witch transformed Golden Curly Hair, she put her inside the ring. Mummy's Golden Curly Hair with the magic ring. She heard her daughter: "Mummy! Mummy! I'm stuck! Help me!" The mummy with the ring, Golden Curly Hair is inside. The mummy is going to see the witch to liberate her daughter. The witch accepts to leave Golden Curly Hair.



McCabe, Labov, Propp



The magical fairytales:
characters and functions

Propp (1928) discovered a unitary structure in magical fairy tales given by two types of constant elements: actions and characters. The names of the characters and the way of making actions may change but the actions themselves ("functions") are always the same. Moreover, actions always follow the same order, giving to the story a logical and a chronological order that makes stories

McCabe, Labov, Propp



Through the study of Russian magical fairy tales Propp (1928) discovered a unitary structure. Indeed, fairy tales include some depth elements (hypothesis of invariance: elements which don't vary from a story tale to another: prohibition, violation, damage, supply of magic object, etc.), allowing to create some abstract categories.

Propp identified two important notions (constant values): the notion of function (i.e. the minimum unity of narrative which corresponds to an action) and the notion of character based on its possible actions. In the field of inventive literature, this narrative model is considered a powerful, predictive instrument and a mean of rationalisation but that can not be applied out of magical fairy tales.

The depth elements lead Propp to individuate 31 possible functions, actions that characters may accomplish, such as: prohibition, break of prohibition, damage, provision of the magical object, etc. An important feature of functions is that they always appear in the same order; even if there is no tale in which we can find all of them.

Regarding the characters, Propp identified seven roles obtained by connecting classes of characters with the actions they may accomplish. Each role-character may act only inside a certain number of functions. All functions constitute the field of action; so, it is possible to attribute some fixed actions to each role. In particular,

With regard to Propp, Manetti affirms that the fundamental narrative criteria is to create a tension and to resolve it. The only function that is always present in fairy tales is the damage; it makes the narrative mechanism starting and it primes several events, which conclude with the equilibrium of the initial tension. This way of considering narratives has been developed by Greimas who claimed that a narrative text is a machine which transforms actors thematic roles, by transforming them from poor to rich, from prisoners to free men, etc. Many times, together with thematic roles, the text puts in evidence the transformation of feelings ("pathemic" roles), in fact we can assist to the modification from sad characters to plenty of joy ones, from

McCabe, Labov, Propp

1

2

3

4

5

The semiotic approach of narration might only be relevant if we acknowledge that the models it proposes are representative of a particular culture, in this case the western one. The narrative structure indicated by Propp is explicitly taught at school, even though in a simplified version. So, we can affirm that there's a strong social and cultural influence in the way children learn to build a "good" story. Indeed, teachers at school Tozzi explain children that fairy tales take place at a certain time and in a certain place. They may be segmented in different parts, the beginning, the central moment (or moment of change) and the end. In this vision fairy-tales always involve particular characters (the protagonist, the antagonist, friends and helpers of the protagonist, etc.) and actions.

Learning this particular narrative model is part of the pedagogical objectives teachers want to achieve. It includes:

- 1) learning to understand and to represent story (tales) using a temporal scheme;
- 2) learning to individuate and to recognise characters, places/environments and situations of a fairy tale.



The protagonist is the character without whom the story would not have any sense, the protagonist is always present in the story.

McCabe, Labov, Propp



Pedagogical implications

McCabe, Labov, Propp



Effects of differences in storytelling traditions

McCabe showed that children and adults from a non-European narrative tradition may find some problems to understand and remember written stories from other traditions. This is also true in the opposite direction: children of European culture find difficult to understand, and even recognise as “stories”, narratives from other cultures.

In United States, most teachers are from a European background and they bring consciously and/or unconsciously their own narrative tradition in their teaching. Often it happens that children tell or write stories that do not respect teachers’ expectations of what is a good story and are therefore misjudged.

Children from different cultural background can misunderstand each other. Indeed, they may create false judgements of others based on their discourse style. These differences highlighted in the narrative tradition may play an important role in misunderstanding the others.

McCabe, Labov, Propp



McCabe solution: Open up the definition of a good story

The issues concerning the differences on narrative traditions must be submitted to the large educational system. McCabe proposes some solutions applicable in the American context: one way to deal with that issue would be to implement a multi-cultural curriculum that would expose each child to the stories of the main cultural groups in US. This exposure should not be superficial but should be supported by an important exposure to the culture itself. Otherwise the effect might be negative rather than beneficial.

A multi-cultural curricula would challenge all the children from different culture at the same time. In such curricula the teachers would provide the children with the required background to make the stories comprehensible. They should elicit and explicit the values and the structural forms of the stories from various cultures.

Teacher should open up the definition of what they consider a good story (i.e. with a beginning a middle and an end, with a problem and a problem solving). For instance, sequentiality is present in every teacher's manual but this ability is specific to the European tradition.

At a more general and ethical level, McCabe raises also very important questions: should the teacher try to modify the narrative structure of the pupil from a non-European toward a European structure? Indeed, giving explicit instructions on the grammar of story improves the comprehension of stories with European forms.

There is less evidence showing that teaching the European model improves the production of children which are not centred on problem solving. Neither there is evidence that teachers can teach students with European background on

McCabe, Labov, Propp



Pogo's pedagogical objectives

The issues raised by McCabe, in the American context, seem, at first, irrelevant in the European one. For instance, in Italian classrooms, still most children are Italian as well as teachers. But world gets smaller every day and Europe as well. Soon, classrooms won't be as homogeneous as they are now. So, to prepare and give individuals the means not to misjudge and understand others, it is important to broaden children experience of different storytelling traditions.

Moreover, narrative is a tool to organise experiences and knowledge. Thus, providing children with a broader range of narrative structures give them opportunities to explore aspects of reality they could not have conceived only with their own cultural instruments. This can be directly related to the first pedagogical objective inspired from Vygotsky's statements.

In addition, if a multicultural curricula would provide together with narratives enough knowledge and experience of different cultures, children could get really closer to the "other's mind", to understand their emotions, wills, and intentions. This encounter the 4th objective stated from Bruner's assumptions.

The European educational system has of course to transmit children's own narrative tradition and structure for them to be adapted to their culture. And this is already provided to children through the existing curricula. But it should also give children the instruments to understand stories from other cultures.

Scott McCloud

1

2

3

4

5



“An angel flies on the sky within the clouds”

Scott McCloud

1

2

3

4

5

What is comics?

"Juxtaposed pictorial and other images in deliberate sequence, intended to convey information and/or produce an aesthetic response in the viewer"

(McCloud, 1993)

Comics is considered a very particular form of art, whose main feature is sequentiality. However the way in which a sequence of images is ordered, is ruled by specific criteria of coherence, aesthetics, and semantics of information. Visual, verbal and symbolic objects used in comics must be wisely balanced between cognitive principles of human action and the knowledge of "unusual violations" allowed by the comics world.

The intriguing aspect of comics is the degree of similarity or difference to maintain in a sequence of images so that they can be kept together by the cognitive activity of the reader. In this way they can be understood as different moments of the same event in time.

Readers of comics are never just "user": they have to be deeply involved in the process interpreting the meaning that is implicit in the sequence of images.

Two kinds of completion/interpretation are required from the reader:

- the first one pertains the axe of difference, the spatio-temporal continuity or discontinuity of images, the intentional fill-in of information that is not explicitly represented. The concept is developed below describing the notion of "closure";
- the second one is related to the similarity between the images and the real or imaginary objects they refer to: the iconicity of comics. "The cartoon is a vacuum into which our identity and awareness are pulled, it is an empty shell

Scott McCloud

1

2

3

4

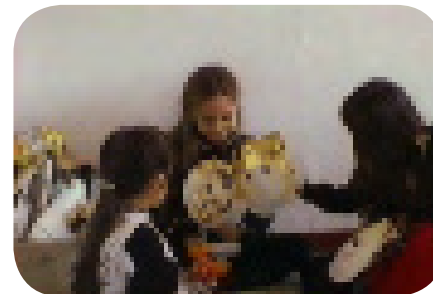
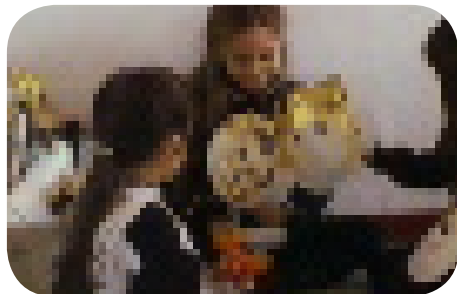
5

Any image used to represent a person, place, thing or idea is an icon.

Where does the power of icons reside? Why do we perceive them so immediately? "When we abstract an image through cartooning we're not so much eliminating details as we are focusing on specific details. By stripping down an image to its essential "meaning", an artist can amplify that meaning in a way that realistic art can't".

Furthermore, why human mind is capable of taking a circle, two dots and a line and turning them into a face, and it is not possible to avoid to do this? Everything we can experience in life can be separated in two realms, the realm of concepts and the realm of senses. Our identity belongs permanently to the conceptual world. Concepts cannot be seen, heard, smelled, touched or tasted. They are merely ideas.

Everything else belongs to the sensual world, the world of outside. We can introject what is outside by giving our identity to objects and placing them in the world of concepts. In this way we can manage the outside object (let us think about what happens when we drive: the vehicle becomes an extension of our body. It absorbs our sense of identity. We become the car). The cartoons de-emphasise the appearance of the physical world in favour of the idea of form. They mediate the introjection process and lead the reader



In the laboratory of Pistoia, the teacher asks the children to build a mask from a paper plate and simple objects and other materials like buttons, ribbons and wool balls. One by one they become a little bunny, a princess, a monster, a bear...

Scott McCloud

1

2

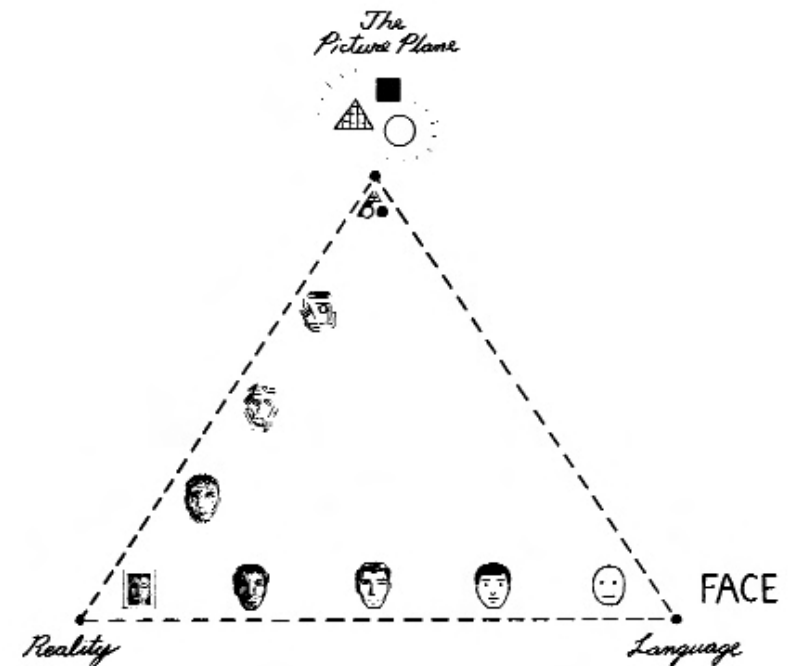
3

4

5

The pictorial vocabulary of comics can be described by the three vertices of an ideal triangle, where reality and language are the bottom vertices and the “picture plane” is the top one. Most comics art lies near the bottom, that is along the iconic abstraction side where every line has a meaning. McCloud distinguishes between pictorial icons (representing life in different degrees of realism) and "non figurative" icons (having a fixed and absolute meaning, and representing invisible ideas e.g. language). He orders pictorial icons stressing the differences between iconic pictorial icons, realistic icons and the category of "picture plane", where shapes, lines and colour can be themselves and not pretend otherwise.

Even though each creator employs a range of styles, when an artist is drawn to one end of the chart or another, that artist may be revealing something about his or her strongest values and loyalties in art. Those who approach the lower left, for example, are probably attracted by a sense of the beauty of nature, those at the top by the beauty of art,



Scott McCloud



“The phenomenon of observing the parts but perceiving the whole has a name: it is called closure”

Scott McCloud

1

2

3

4

5

We perceive the world as a whole through the experience of our senses, yet our senses can only reveal a world that is fragmented and incomplete. Our perception of reality is an "act of faith", based on these fragments. Gestalt psychology (Kanizsa, 1980) and Rudolf Arnheim (1969) investigated this phenomenon claiming that perception is an active process of building reality even in the first phase of retinal impression. Perception is not a mere phenomenon of passive taping of the existent and can take many forms. In our daily lives, we often commit closure, mentally completing what is incomplete, making reference to past experience. Sometimes a mere shape or outline is enough to trigger closure: recognition of icons too is triggered by this mental device. Every time we see a photograph introduced in a newspaper or magazine we commit closure. Our eyes take in the fragmented black and white image of the "half tone" patterns and our minds transform it into the "reality" of the photograph. In film, closure takes place continuously twenty-four times per second. In fact our minds, aided by the persistence of vision, transform a series of still pictures into a story of continuous motion. A medium that requires even more closure is television, which, in reality, is just a single point of light, racing across the screen hundreds of time in a second. In comics closure is the agent of change for time and motion; "in the limbo of the gutter, human imagination takes two separate images and transforms them into a single idea". The closure of electronic media is continuous, largely involuntary and virtually



"In this panel you haven't seen my legs.
Yet you assume they are there"



"To kill a man between panels is to condemn him to a
thousand deaths"

Scott McCloud

1

2

3

4

5



If icons constitute the comic's vocabulary, closure is its grammar. Different kinds of closure can be used to evolve an existing panel to panel transitions:

- moment to moment (this transition requires a little closure).
- action to action (where a single subject is featured in a progression).
- subject to subject (while staying within a scene or idea, a high degree of reader involvement is necessary to render the transition meaningful).
- scene to scene (this transition transports the reader across significant distances of time and space).
- aspect to aspect (this transition bypasses time for the most part and sets a "wandering eye" on different aspects of a place, idea or mood).
- no sequitur (where author does not offer any logical relation between panels and forces the reader's mind to develop it. n

It is possible to observe significant differences between cultures in the use of closures. Marvel's comics are mainly based on the action-to-action closure. Japanese mainstream comics are mostly based on aspect-to-aspect transitions, where sequence seems less important than in other transitions. In this case, rather than acting as a bridge between separate moments, the reader must assemble a single moment using scattered fragments.

A reason for these differences can be due to the fact that western art and literature are more goal-oriented than the eastern one. Furthermore in the east, there is a rich tradition of cyclical and labyrinthine works of art. In Japan, for example, comics is an art of intervals where the elements omitted from a work of art are as much a part of that work as those included. The impact of Eastern ideas of conceiving comics influenced the western habits in a powerful and lastingly way.



Scott McCloud

1

2

3

4

5

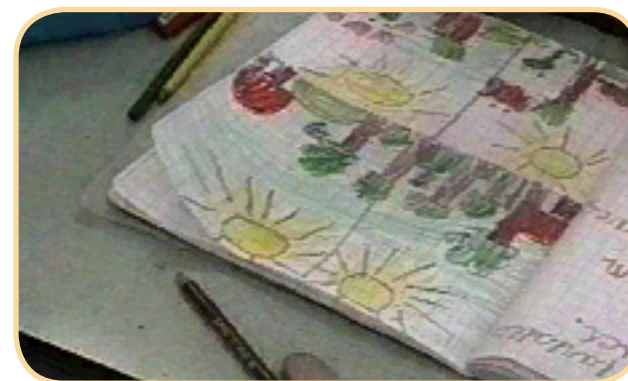


In this comics, made by a child of the Tozzi school, we can observe the following closures

1-2: moment to moment

2-3 and 3-4: action to action

4-5: scene to scene



In this one there are the following closures:

1-2: moment to moment

Scott McCloud

1

2

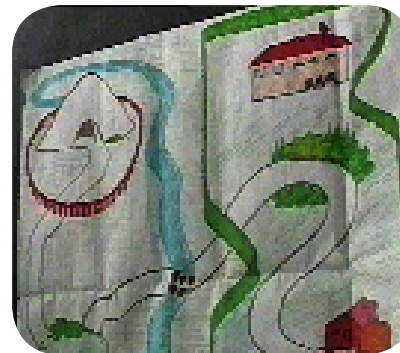
3

4

5

It is possible for a comic's author to rely upon closure for giving to the reader the perception of time going; McCloud adds some other devices at this scope:

- baloons
- number of images reproducing the same subject
- length or size of the images



This poster, used during an activity of spatial and temporal consciousness in the Tozzi school, suggests a space and time organisation because the story develops along the road, from north-east to north-west and then backward. The elements in the poster suggest a pause in the bear's journey and an expansion of the plot. Children are asked to paste the pictures of the bear in the right place while the teacher tells the story.



Bruxelles: "Three little piggies". The scenery represents images, locations, characters and objects. The scenery creates a narrative space and a narrative sequence. Children ask the teacher if there is a direction along which to look at the scenery. The teacher replies that it is up to them: they can observe the scenery from left to right or from right to left. The scenery is used for inspiring them to build their personal story.

Scott McCloud

1

2

3

4

5

As so as time and motion, lines can evoke sensations too (e.g. Kandinskij), other non visible elements (e.g. scient) or states of mind (anger or surprise).

From it's first appearance, this kind of representations evolves and tend to become an independent form of language. Also the style of the balloons and types can communicate something not visible.

Backgrounds too can suggest the various states of mind of the foreground subjects.



Siena and Bruxelles:
children's drawings



Scott McCloud

1

2

3

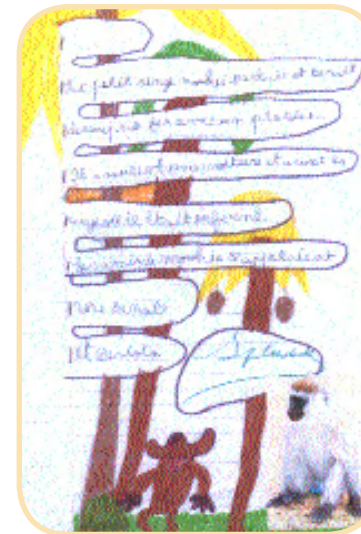
4

5

During their childhood children are stimulated to integrate text and words with images. While growing they learn by their society that these languages must have a separate life. McCloud stresses the importance of developing a sensibility to the possible contamination between different codes.

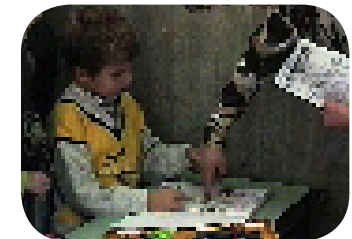
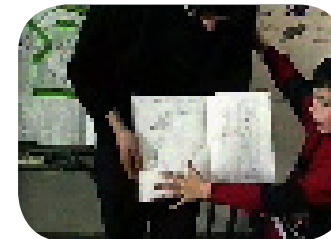
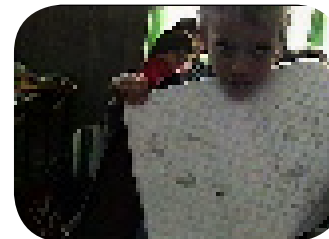
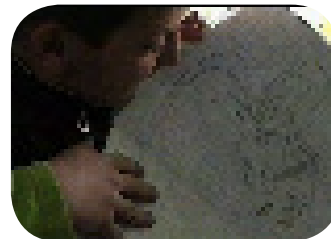
How words and images are combined in comics? McCloud gives a classification:

- prevalence of words (images illustrate but don't add anything relevant to the text)
- prevalence of figures (words add something little more than a soundtrack to a visual sequence)
- equivalence (words and images communicate the same message)
- additive combination (words amplify and elaborate an image or vice versa)
- parallel combination (words and images seem to follow different ways without intersect each other)
- editing (words are integrating parts of images)
- interdependent combination (words and figures alternate each other to give the



Siena and Bruxelles children's drawings

Siena: in Tozzi school children are used to verbally illustrate to the teacher the content of their drawings. This is an example of McCloud's claim that during childhood verbal and visual language are still integrated



Bruno Munari

1

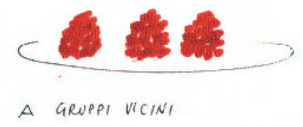
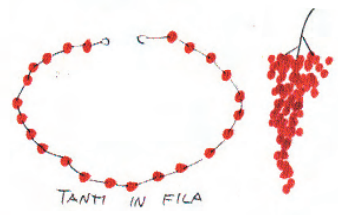
2

3

4

5

SE SAI FARE QUESTO → (APPOGGIAMO IL PENNARELLO SUL FOGLIO)
ALLORA PUOI FARE :
PIÙ GRANDE



Bruno Munari

1

2

3

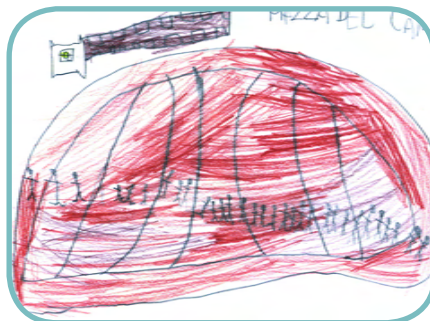
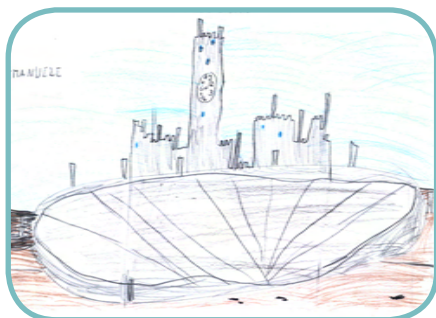
4

5

"A creative person is someone who realises himself/herself within the society s/he lives in. Creativity can be stimulated even in children of pre-scholar age. Doing this, children will be more prepared to understand and react to every kind of situation"
(Munari, 1981)

Is it possible to stimulate artistic creativity as a visual communication mean between individuals?

Munari claims that this stimulation must be induced during the infancy, that is when the individuals form their personality by developing relationships with the surrounding world. Infancy is the richest period of life for developing creativity. For this reason, "it is necessary to extend as much as possible the experience of children to provide solid bases for their creativity. The more the children see, listen, experiment, experience and assimilate, the more their imaginative activity becomes meaningful and fruitful" (adapted by Vygotsky, 1972).



Siena: "The Palio through different viewpoints".

First graders from the Tozzi school participated to a long activity related to the Palio (the famous traditional horse race occurring twice a year in Siena). Children started to read the book of a little boy who dreamed to be a famous jokey running for the Palio: "Lapo sei un Lampo". They also had the opportunity to meet the author of the book and a real jokey. They played with a typical ball game (Barberi) simulating the Palio race. They drew the flag of their contrada (neighborhood) using real photos.

Teachers consider important to create different opportunities and ways for the children to experience an event: reading a book, meeting people, playing games, drawing from images...

Bruno Munari

1

2

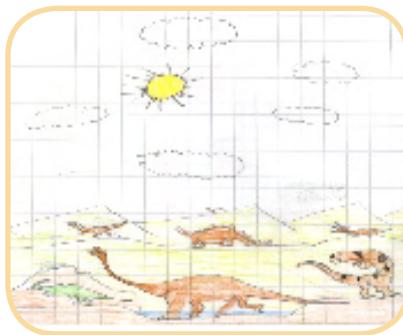
3

4

5

Creativity as the process of embodiment of inputs coming from the external world. Bruno Munari (1977) gives a classification of the possible ways to manage them in a creative way:

- thinking the opposite: reversing a situation, using the contraries, the opposites, the complements (the Marcel Duchamp's "fountain" upside-down urinal).
- multiplication of the parts of a set without modifying the functionality of each part (the dragon with seven heads)
- creating new relations between visual or functional units, extrapolating them from their context and giving them a new meaning
- changing colour (the Man Ray blue bread), material (the soft clocks of Salvador Dali), place, function, speed, dimension, weight.
- creating new relations, applying multiple kinds and levels of manipulation to an object.



"Dinosaurs".

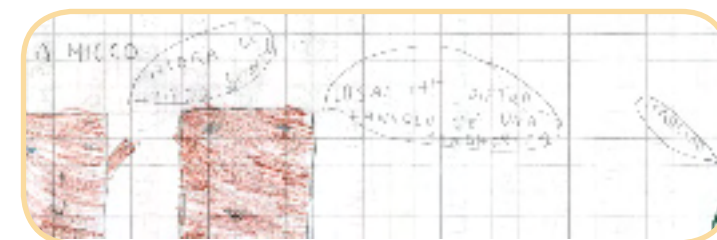
"The Tires said: I can't eat you, wait!
But why can't you eat me?
I can't! Why don't we become friends
and happy?"

Davide, a 7 years old boy, after writing this piece of text, explained how he inverted the Dinosaurs phylogenesis. This child knows very well dinosaurs and knows that Tyrannosaurus Rex exterminated Brontosaurus but he decided that in his story they would become friends.

Giuditta, 6 years old, composed the most ugly and scary monster with several legs, arms, eyes and mouths



Eva, 7 years old, created a really nice garden: she glued real flowers on her sheet of paper.



"A speaking furniture". This is the story of Benedetta, a 7 years old girl:

Once upon a time there was a brown speaking furniture, it had blue eyes and it was very kind. Another furniture went to live with it but this last one was always angry. The kind one didn't know what to do.

Once, the kind furniture decided to play a trick to his friend and it said: "Hey, my friend, do you know that, behind the corner, there's a beautiful daisy?" In fact the angry furniture liked daisies. The furniture went behind the corner, but the daisy wasn't there, so it turned another corner and it found the daisy. The daisy asked the angry furniture: "Do you want to marry me?" The furniture agreed, they married and became happy.

Bruno Munari

1

2

3

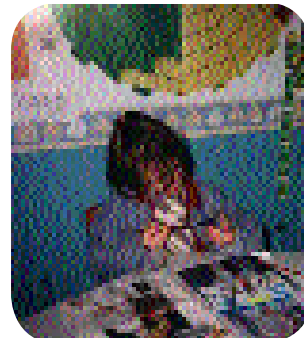
4

5

The more the tool is informal, the less it is stimulating for the child. Creativity develops within the appropriate constraints.

Painting and sculpture are not the only communication means of art.

At the primary school, children are mainly provided with colours to paint and clay to mould. However children do not feel these means really close to their sensibility. For example clay is not appropriate to stimulate creativity because it is too informal. In order to use it correctly, it is necessary to know in advance the results we want to obtain. This is a bias coming from the literature where visual arts "narrate" instead of "showing". Words are appropriate to narrate, and images are appropriate to show. The problem is to provide each individual with the



Bruxelles: "Chateau hanté". In this example children invented a concept of a "painting story board". The product integrates both narrative and various media.

Children created the concept through several steps. First the teacher read an illustrated book, "Dark so Dark", in order to trigger their imagination and their emotions of fear. Then children built a virtual forest using material from the school's garden. They also illustrated a story about a haunted castle by building characters which were pasted on the story panel.

Each of these steps contributed to trigger the idea of painting a board and including a story book within the painting.

Each child invented a story and made a related illustrating picture.

Each activity contributed to develop their imagination in specific conditions.

Bruno Munari



Learning through helping each other.

Munari adopts the vygotskian concept of "zone of proximal development". He suggests to train children to share experiences, to co-operate and to support each other. The child who is more skillful in a particular activity will help the other ones. Personality has to develop in an autonomous way, without comparison or appreciation. The rule is "to learn while supporting the others and sharing

Siena: during a free activity in kindergarten, children started to draw individually. They were seated in groups of 5 or 6 around round tables. After a while, extended co-operation took place: for instance, one of the child particularly skilled in drawing sea-animals (whales, fishes, octopus...) was asked by the others to add fishes on their own drawing. Later on, this activity became a full co-operative story building by means of drawing. Indeed, children were all drawing on a same sheet building together a coherent story. One of the

Bruno Munari



The Brera laboratory for children

Bruno Munari

1

2

3

4

5

The project of the "Brera laboratory for children" was developed and directed by Bruno Munari (1981). The objective of the laboratory was to develop a methodology to enhance children creativity in the field of visual communication. In this laboratory, Munari let children play with various art techniques. The children were provided with a visual presentation, a large amount of examples and a selected set of tools: their task was to create an artwork based on the presentation and the examples. In this way children could manipulate the external stimuli and produce an original output being guided by the constraints provided by rules and tools.

Collaboration was also stimulated in order to promote every kind of contamination of products and processes between children. The teacher's role was limited to try to understand what children wanted to develop and help them to go through it. Different techniques were used; all of them were explained to the children in two forms: "how to communicate" and "what to use to communicate"



Bruno Munari

1

2

3

4

5

Pointilism:

Examples: Boccioni, Seurat (seated model), Severini (danseuse obsedante), Signac (Saint Tropez).

Explanation of the technique-how to communicate: a game based on visual perception's experiments, is used to explain optical phenomena. The child is asked: "what can you see from far?"



Bruno Munari

1

2

3

4

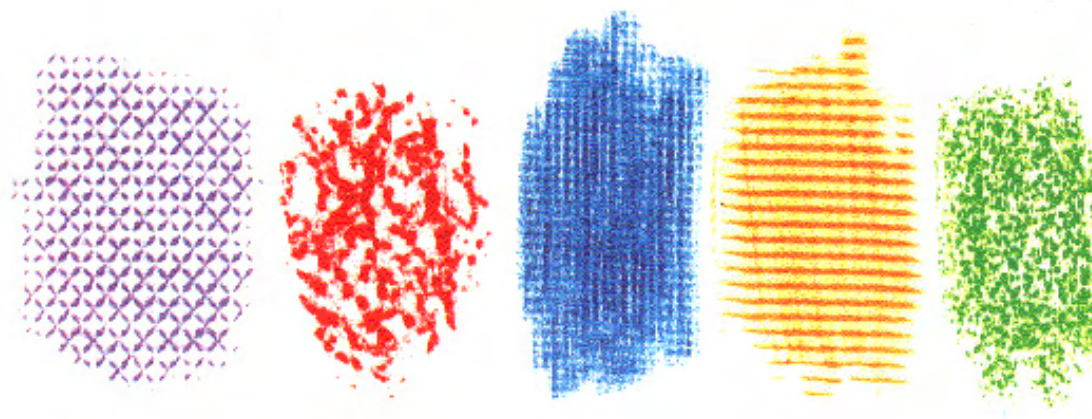
5

Texture

Examples taken from artists who gave to coloured surfaces a particular technical treatment: Braque, Morandi, Debuffet, Tobey, Klee, Lichtenstein, Wilding, Dorazio, Morellet. Coloured surfaces are texturized in an informal and organic way; other surfaces are painted with a lot of different coloured spots; some others with geometric lines.

How to communicate: a set of tablets containing different materials in relief are disposed on a table: thick glass-paper, rubber scores with lines, a thin wire net, grits of stone. The tablets are disposed in a clang along the table (like the piano keys) covering the whole surface on which children can draw.

What to use to communicate: pastels and coloured pieces of chalk. Children take a paper, lean it on one of the exposed surfaces and puff a piece of chalk on it. The effect is to transfer the underlying texture on the paper. It is possible to puff more than on texture for each painting.



Bruno Munari

1

2

3

4

5

Paper of different sizes:

Examples: circular, oval, exagonal paintings.

How to communicate and what to use to communicate: children are provided with papers of different shapes and dimensions, various kinds



Bruno Munari

1

2

3

4

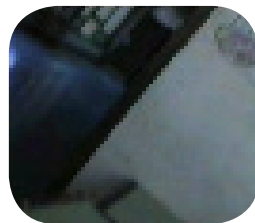
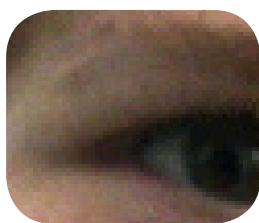
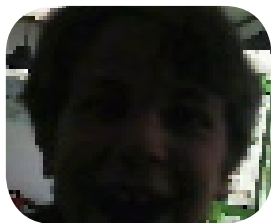
5

Learning while playing

"Both in adults and children, the game is an act of matching individual originality with the acceptance of the rules imposed by a technique or a tradition. In a game, rules provide both criteria and freedom to act. Rules from tradition and culture force the individual subjectivity to emerge and to relate with the outside world. They drive the research of an original transition and feed imagination and fantasy".

The input coming from the outside may be elaborated through games. Their rules force children to solve the problems, mediating embodied stimuli with the physical constraints. The "game of art" will develop an "analytical and structural attention" in the child.

Game is not simply remembering the impressions experienced, game is a creative re-elaboration of them. It is a process of combining impressions to build a new reality by matching individual needs and



Siena. During an observation in Tozzi school, children of first grade were particularly fascinated by the video camera used by researchers. They started to ask for using it and, at the end, the observer decided to let them try.

So, children were allowed to watch through the camera, to zoom in some details, to change their point of observation. They were particularly interested in observing from points of views they never experienced before (e.g. to observe the world up-side-down, to investigate inside other children's mouth...). A richer experience has been used to learn something new in an exciting experiential way.



Bruxelles: "Boîte à images". In this example a story-building activity has been transformed by the kindergarten teacher in a structured game.

Every child had to select a picture from a different box, each box containing characters, objects, places or other typical elements of narratives.

Children were then encouraged to tell something about their pictures.

The activity was structured in a sequential way. Each child had to chain his part of the story to the ones invented by his schoolfriends.

Conclusions

The cultural psychology framework presented in this document guided the definition of five pedagogical objectives that the Pogo world should address. They can be summarised as follows:

1. Expand as much as possible the sensorial experience of children within each type of relationship: e.g.

I Imaginary relationships between real elements,

II Real relationships between real but not experienced elements;

Allow comparison and experimentation among the relationships I and II. Stress the social origin of relationship II.

2. Allow children to develop emotional knowledge (e.g. empathy) through the law of the common emotional sign and the law of reality of imagination.

3. Allow children to complete the circle of creative imagination that started from sensorial knowledge of reality and that has to go back to reality through the active modification of the environment produced by the embodiment of the imagination.

4. Develop children abilities to understand others' emotions, intentions; wills and beliefs, to understand "other's minds" (intersubjectivity).

5. Develop children metacognition

The proposed five pedagogical objectives constitute a corpus of aims that are mutually supportive and that are at the core of many innovative practices of literacy education. Both the Italian and Belgian schools involved in the project are at the forefront of these advanced education practices: in some cases, computer-based technologies are used to support educational activities at the school, but unfortunately the available digital technology violates most of the principle stated by the proposed pedagogical objectives and for this reason it is often relegated to a marginal role. Obviously, this is not due to the nature of the technology, but to the way most of current digital technology is designed.

The first limitation of the current technological tools is the fact that learning is separate from -- and to some extent opposed to -- any other activity in everyday life. According to this design view, not only do we learn mainly in certain periods of our lives, but our learning is restricted to specific occasions, such as when we take a class, or play a CD, or watch an instructional video. However, this is an inaccurate description of how matters stand. Study and instruction "per se" are indeed important, but learning is also deeply rooted in other everyday activities and experiences as well. Most of the relevant know-how that distinguishes an expert from a novice is acquired on a day-to-day basis by acting, reflecting and day-dreaming.

Another limitation of technology is that it is mainly mono-sensorial. Visual stimulation is the predominant vehicle of interaction with technology and the other senses are dramatically cut out. This mono-sensorial modality of interaction is unnatural and violates one of the proposed pedagogical objectives: "to let the children to experience and express as much as possible through the different sensorial modalities".

In the third place, the view of learning as a totally individual activity is misleading. Learning is much more than, and very different from, finding and acquiring items of structured knowledge. In everyday life as much as in work organisations, people and groups create knowledge negotiating the meaning of words, actions, situations, and material artefacts. They all participate and contribute to a world including the personal sphere as well as the working environment, which is socially and culturally structured and constantly reconstituted by the activities of all those who belong to it. Cognitive and practical activities can thus be pursued only within this world, and through this social and cultural network. Knowledge is not what resides in a person's head or in books or in data banks. To know means to be able to participating with the requisite competence in the complex web of relationships among people and activities. From this definition, it follows that learning is always a practical accomplishment. Its goal is to discover what to do, when and how doing something by using specific routines and artefacts, and finally to provide a reasonable account of why a certain activity has been done. Learning, in short, takes place among and through other people.

References

Bartlett, F.C. (1932). *Remembering: a study in experimental and social Psychology*. Cambridge MA: Cambridge University Press.

Brown, A. L., Ash, D., Rutherford, M., Nakagawa, K., Gordon, A., & Campione, J. C. (1993). *Distributed expertise in the classroom*. In G. Salomon (Ed.), *Distributed cognitions: Psychological and educational considerations* (pp. 188-228). New York: Cambridge University Press.

Bruner, J.S. (1962). *Introduction*. In L.S. Vygotsky, *Thought and language* (pp. v-x). Cambridge, MA: MIT Press.

Bruner, J. S. (1988). *Prologue to the english edition*. In L.S. Vygotsky *The whole Vygotsky* (pp 1-2).

Bruner, J.S. (1989). *Il linguaggio del bambino*. Roma: Armando.

Bruner, J.S. (1990). *Acts of meaning*. Cambridge MA: Harvard University Press.

Bruner, J.S. (1996). *The culture of education*. Cambridge MA: Harvard University Press.

Cole, M. (1990). *Cognitive development and formal schooling: The evidence from cross-cultural research*. In L. C. Moll (Ed.), *Vygotsky and education: Instructional implications of sociohistorical psychology* (pp. 89-110). New York: Cambridge University Press.

Cole, M., & Engeström, Y. (1993). *A cultural-historical approach to distributed cognition*. In G. Salomon (Ed.), *Distributed cognitions: Psychological and educational considerations* (pp. 1-46). New York: Cambridge University Press.

Feldman, C.F. (1991). *Oral metalanguage*. In D.R. Olson & N. Torrance (Eds), Cambridge MA: Harvard University Press.

Gindis, B. (1995). *The social/cultural implication of disability: Vygotsky's paradigm for special education*. *Educational Psychologist*, 30(2), 77-82.

Greimas, A. J. (1977). Elements of a Narrative Grammar. *Diacritics*, 7, 23-40.

Hudson, A., & Shapiro, L.R. (1991). From knowing to telling: The development of children's scripts, stories, and personal narratives. In A. McCabe & C. Peterson (Eds.), *Developing narrative structure* (pp. x-y). Hillsdale, NJ: Lawrence Erlbaum Ass.

Hutchins, E. (1983). Understanding Micronesian navigation. In D. Genter & A.L. Stevens (Eds), *Mental Models*. Hillsdale, N.J. : Lawrence Erlbaum Ass.

John-Steiner, V. (1995). Cognitive pluralism: A sociocultural approach. *Mind, Culture, and Activity*, 2, 2-10.

John-Steiner, V., & Osterreich, H. (1975). Learning styles among Pueblo children. NIE Research Grant, Final Report, Albuquerque, University of New Mexico, Department of Educational Foundations.

John-Steiner, V., & Souberman, E. (1978). Afterword. In M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (Eds.), *Vygotsky, L. S., Mind in society: The development of higher psychological processes* (pp. 120-133). Cambridge, MA: Harvard University Press

John-Steiner, V., Panofsky, C. P., & Smith, L. W. (1994). *Sociocultural approaches to language and literacy: An interactionist perspective*. New York: Cambridge University Press.

Kanizsa, G. (1980). *Grammatica del vedere, saggi su percezione e Gestalt*. Bologna: Il Mulino.

Labov, W. (1972). *Language in the inner city*. Philadelphia: University of Pennsylvania Press.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.

Leinhardt, G. (1996, April). Focusing on knowledge systems for teaching. Paper presented at the annual conference of the American Educational Research Association, New York, NY.

Leontiev, A. N. (1981). Problems of the development of mind. Moscow: Progress Publishers.

Lévi- Strauss, C. (1962). La pensée sauvage. Paris: Plon.

Liverta Sempio, O. (1998). Introduction. In Liverta Sempio, O. (Ed), Vygotskij, Piaget, Bruner: Concezioni dello sviluppo. Milano: Raffaello Cortina.

Luria, A. (1973). The working brain: An introduction to neuropsychology. New York: Basic Books.

Luria, A. (1979). The making of mind. Cambridge, MA: Harvard University Press.

Mandler, J. (1984). Stories, scripts and scenes: aspects of schema theory. Hillsdale, NJ: Lawrence Erlbaum Ass.

Manetti, G. (1998). L'enunciazione. Le origini del concetto e alcuni più recenti sviluppi. Siena: Protagon.

McCabe, A. (1997). Cultural background and storytelling: a review and implications for schooling. Elementary School Journal, 97 (5), 453-473.

McCabe, A. (1997). Developmental and cross-cultural aspects of children's narration. In M. Bamberg (Ed.), Narrative development: six approaches (pp137-178). Mahwah, New Jersey: Lawrence Erlbaum Ass.

McCloud, S. (1993). Understanding comics, the invisible art. New York, NY: Harper Collins.

Munari, B. (1977). Fantasia. Bari: Laterza.

Munari, B. (1981). *Il laboratorio per bambini a Brera*. Bologna: Zanichelli.

Ong, W. (1988) *Orality and literacy*. London: Routledge

Palincsar, A. M., Brown, A. L., & Campione, J. C. (1993). First-grade dialogues for knowledge acquisition and use. In E. A. Forman, N. Minick, & C. A. Stone (Eds.), *Contexts for learning: Sociocultural dynamics in children's development* (pp. 43-57). New York: Oxford University Press.

Propp, V. (1968). *Morphology of the Folk Tale*. 2nd ed., rev. and ed. with pref. by Louis A. Wagner. Introd. by Alan Dundes. Austin: University of Texas. (First Engl. ed. 1958. Translated from *Morfologija skazki*. Leningrad: Academia. 1928.)

Ricoeur, P. (1983). *Temps et récit*. Paris: Seuil.

Rizzo, A., Palmonari, M. (1999). *External Representations and Deductive Reasoning*. In J. Garcia Madruga & N. Carriedo (eds) *Mental Models in Reasoning*, Madrid: UNED Press.

Rogoff, B. (1990). *Apprenticeship in thinking*. New York: Oxford University Press.

Rogoff, B. (1994). Developing understanding of the idea of communities of learners. *Mind, Culture, and Activity*, 1, 209-229.

Shotter, J. (1990). The social construction of forgetting and remembering. In D. Middleton & D. Edwards (Eds), *Collective Memory*. London: Sage.

Stock, B. (1983). *The implications of literacy*. Princeton: Princeton University Press.

Vygotsky, L.S. (1972). *Immaginazione e creatività nell'età infantile*. Roma: Editori Riuniti.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (Eds.). Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1981). The instrumental method in psychology. In J. V. Wertsch (Ed.), *The concept of activity in Soviet psychology* (pp.134-144). Armonk, NY: M.E. Sharpe.

Vygotsky, L. S. (1986). *Thought and language*. A. Kozulin (Ed.). Cambridge, MA: MIT Press.

Wertsch, J. V. (1991). *Voices of the mind: A sociocultural approach to mediated action*. Cambridge, MA: Harvard University Press.

Wertsch, J. V (1994). Mediated action in sociocultural studies. *Mind, Culture, and Activity*, 1, 202-208.

Wertsch, J. V., & Stone, C. A. (1985). The concept of internalization in Vygotsky's account of the genesis of higher mental functions. In J. V. Wertsch (Ed.), *Culture, communication, and cognition: Vygotskian perspectives* (pp. 162-179). New York: Cambridge University Press.

Wundt, W. (1921) *Elements of folks psychology*. London: Allen &Unwin.

Zukow-Goldring, P., & Ferko, K. R. (1994). An ecological approach to the emergence of the lexicon: Socializing attention. In V. John-Steiner, C. P. Panofsky, & L. W. Smith (Eds.), *Sociocultural approaches to language and literacy: An interactionist perspective* (pp. 170-190). New York: Cambridge University Press.