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## *Art in Learning Process*

### ABSTRACT:

In learning processes, the affective-relational aspect plays a strategic role of no less importance than the cognitive sphere. The traditional education offerings of schools and, even more, universities, very often neglect the necessary integration between these aspects.

Art, in its various forms and its many languages, can promote motivation, interest, participation and passion in the learner and can be an effective element of connection between “the reasoning of the heart and the reasoning of the mind”. The art languages are characterized by an uninterrupted flow of images, awesomeness, references, open-mindedness which predisposes to meta-learning, a crucial resource for the global education.

A network connecting von Foerster, Van Gogh, Bateson and Frida Kahlo stems from narration about art, ethics, therapy, science and political activism.

«Imagination is more important than knowledge generally. For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand»

Albert Einstein

### *Introduction*

In learning process, the affective-relational setting plays a strategic role, no less important than the cognitive one: the traditional educational organizations, schools and even more universities, very often neglect the necessary integration between these two settings. The construction of knowledge sets both the cognitive and the emotional sphere in a mutual, virtuous relationship: the emotional uninterrupted, analogic, iconic, evocative

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<sup>\*</sup> Alberto Quagliata wrote *Introduction* and *Art and learning*; Lavinia Bianchi wrote *Bateson, Picasso, Matisse, Van Gogh and Frida Kahlo*.

approach of the narrative thought well integrates itself with the rational, digital, mathematical, operational approach of the logical thought.

The art languages are characterized by an uninterrupted flow of images, solicitations, references, open-mindedness which predisposes to *meta-learning*, a crucial resource for the global education; in the preface of *Learning how to learn* (1984), Gowin and Novak write: «for almost a century students of education have suffered under the yoke of the behavioural psychologists, who see learning as synonymous with a change in behaviour. We reject this view and observe instead that learning by human leads to a change in the meaning of experience [...] behavioural psychology and much of currently popular “cognitive science” neglects the significance of feelings. Human experience involves not only thinking and acting but also feelings».

### *Art and learning*

Socio-cultural Constructivism and the Complexity theory encourage teachers and educators – being responsible for learning process – to overcome the cartesian dichotomies. The separation between different branches of knowledge – the cartesian assumption about an original separation between body and mind, reason and heart, biology and culture, genetic and learned – is doomed to fail as a methodological approach.

Day after day, *liquid modernity* increases uncertainties and expectations of change and, at the same time, in a planetary vision, requires an in-depth imagination of new worlds to live, as well as of new lives and individualities: the morinian idea of «subject as a system» points to a new definition of the «subject», to its responsibility towards himself, all the human beings and the entire ecology of the living creatures. Pascal writes:

«The heart has its reasons, which reason does not know. We feel it in a thousand things. I say that the heart naturally loves the Universal Being, and also itself naturally, according as it gives itself to them; and it hardens itself against one or the other at its will. You have rejected the one and kept the other. Is it by reason that you love yourself?»

In its various expressions and languages, art can promote motivation, interest, participation and passion in learners: art is an effective way to trigger significant achievements. The idea of significant learning, introduced by Ausubel (1978), was ignored by behavioral psychology, ruling at that time; thanks to the biologist Nowak and to his research team, the Ausubel's idea of knowledge was re-evaluated and got a planetary notoriety, through the

instrument of the concept maps.

The idea of significant learning states that knowledge starts from the integration of new concepts with already conceived ones and from the original synthesis that creates meaning: this synthesis allows to link new information to that already known through new relations and new relations of relations.

Disch writes: «Creativity is the ability to see relationships where none exist».

There are three necessary conditions for the relationship creation:

1. learning goals must have an internal coherence in order to encourage the cognitive, emotive, affective and creative aspects of each representation;
2. the learner is endowed with a cognitive structure containing previous information which can be linked with new information through similitude, analogy or continuity;
3. the learner is motivated to relate his cognitive structure with new information, so that new knowledge takes a psychological meaning.

Within this process, the logic-rational and the analogic-intuitive thinking alternate: thanks to the flow, the *creative flow*, recurrent events and sudden swings take place. The *creative flow* is characterized by several elements (Csikszentmihalyi, 1996):

4. great inner lucidity about what to do and the how to get it;
5. the awareness of being suitable for the aim;
6. serendipity;
7. the lack of temporal perception, and a strong focusing on the present;
8. the awareness of intrinsic motivation, as every result of the flow is inspiring in itself;
9. a condition of ecstatic perception which leads us out of our daily awareness;
10. a total involvement in what we are doing, to activating our maximum concentration.

Gardner (2006) asserts that the «aim of education is not to give a conclusive answer, but to promote knowledge without deleting mystery and the ability to wonder».

Art is astonishment: through an artistic experience, learning is enlivened, built and shared.

In *Five Minds for the Future* (2006), Gardner locates five necessary attitudes (disciplinary mind, synthesizing mind, ethical mind, creative mind and respectful mind) for the education of the future, an education which

is aware of having to gear the interdependence-world with peaceful and respectful society. In his book, Gardner assumes a prescriptive and militant point of view, going further the mere description; his ethic aim is significant: «in the description of mind one cannot avoid an examination of values».

In Art there are many examples of synthesizing mind, such as Filippo Lippi's frescoes in the Santa Maria Assunta Cathedral in Spoleto. In this extraordinary artistic decoration, Lippi tells *The story of Mary*, skillfully employing the architectural structure of the choir to highlight global vision of the scene. The sequence of the frescoes represents, from left to right, the Virgin's life: Annunciation, Death, Nativity and Coronation, which is painted on the apsidal semi-dome.



Fig. 1 – Cathedral of the Assumption of St. Mary in Spoleto, Italy (1466)

In the psycho-pedagogical sphere, there are many authors who treat about passionate argumentations for the creation of a radical rethinking of our educational system in order to cultivate creativity and aesthetics: the sociologist and philosopher Bourdieu, for example, did not restrict his own research to the «Sociology of Literature», but he went much further in order to create a general theory of the «symbolic store» in society: art and literature are significant part of that «store».

Many important scholars of pedagogy, such as Bruner, Dewey and

Montessori, have highlighted the importance of art in education, making it closer to contemporaneity and to the social approach to knowledge.

In the video *Changing Education Paradigms*<sup>1</sup>, Robinson strongly criticizes the purely factual knowledge system of schooling, which he considers anesthetizing and stigmatized and thus contributing to creating stigmatized and demotivated children.

The core of the «grass-roots revolution» is the *lateral thinking* (De Bono, 2002), that is the ability to solve problems by studying them from multiple and creative standpoints. According to Robinson<sup>2</sup>, the crucial problems lay on our outmoded industrial system. With regards to creativity, lateral thinking and talent scouting *Epiphany*, in the video *Do schools kill creativity?* Robinson tells the story of Gillian Lynne, known as the choreographer of *Cats* and *The Phantom of the opera*, who used to be a hopeless student. Her teachers informed her parents that probably Gillian had a learning disorder: nowadays, we would call it ADHD (Attention-Deficit Hyperactivity Disorder), but Gillian's story was in the 1930s and ADHD had not been invented yet.

Gillian was only 8 when her mother contacted a psychologist who, after observing her for a long while, decided to leave Gillian alone in the room. As the psychologist left the oak-paneled room, he turned on the radio on his desk. When the psychologist and Gillian's mother got out of the room, they just stood watching at Gillian. The minute they left the room, she was on her feet, moving along the music. «Mrs Lynne, Gillian isn't sick, she's a dancer. Take her on a dance school», said the doctor. Gillian was happy at the dance school, together with other people who could not sit still, and had to move to think. She eventually graduated at the Royal Ballet School and she had a wonderful career. She has worked on some of the most successful musical theatre productions in history, for the enjoyment of the public, and became a multimillionaire.

Somebody else might have put her on medication and tell her to calm down.

### *Bateson, Picasso, Matisse, Van Gogh and Frida Kahlo*

Gregory Bateson was an English anthropologist, social scientist, cybernetics co-founder and linguist, whose studies turned out to be crucial in

<sup>1</sup> See <[www.youtube.com/watch?v=zDZFcDGpL4U](http://www.youtube.com/watch?v=zDZFcDGpL4U)> (last access 04.09.2016).

<sup>2</sup> See <[https://www.ted.com/talks/ken\\_robinson\\_says\\_schools\\_kill\\_creativity](https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity)> (last access 04.09.2016).

many fields: as a co-founder of the system theory, he inspired the «double bind theory. As far as knowledge is concerned, he asserts that there is no separation among the different fields of science: specifically, so it is for science and art.

In the short film *An ecology of Mind*<sup>3</sup>, Nora Bateson, Gregory's daughter, says «the Batesons look at art as a part of the grace of nature». In the same film, her sister Mary Catherine<sup>4</sup> says that «every kind of aesthetic answer is an answer to relationship [...] the experience we get from reading a poem or from looking at a picture is an unconscious examination of the many and different relations that artist has been able to represent».

Gregory Bateson (1972) says «art is a part of man's quest for grace, for the attainment of grace, the reasons of the heart must be integrated with the reasons of the reason».

Art is an uninterrupted learning method, it is holistic, aesthetic, capable of linking experiences and knowledge.

Picasso, Matisse, Van Gogh and Frida Kahlo are emblematic example for our speech.

Picasso wrote: «As a child, I could draw like Raphael, but it has taken me a lifetime to learn how to draw like a child».

Changing learning basis is an action that Bateson (1979) describes as «learning level III»: «[...] learning to violate the conformity to rules, to free oneself from habits of thoughts and to prevent to get into them, to act a profound redefinition of the self-experience into models previously unknown and, in the meantime, to consider valid all the models until further notice».

Matisse writes that «creativity takes courage»; we like to imagine that Bateson was thinking about *The dance*<sup>5</sup> when he wrote: «[...] the right way to begin to think about the pattern which connects is to think of it as a primarily (whatever that means) dance of interacting parts».

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<sup>3</sup> *An ecology of mind. A Daughter's Portrait of Gregory Bateson*, 2010, is a film that outlines, from different angles, as a jazz variations on a theme, an intellectual biography, the uninterrupted study of the «pattern that connects», the interrelations between the natural system, the relationships of everything with everything else: with life, nature, living organisms, religion, the behaviour of schizophrenics, the sacred, the methodology of the Alcoholics Anonymous, the confused mind of anorexics and art in nature.

<sup>4</sup> Mary Catherine Bateson, Gregory's and Margaret Mead's daughter, anthropologist and psychologist, was co-author together with her father of a series of meta-dialogs (metalogs) and wrote *Angels Fear. Towards an Epistemology of the Sacred*.

<sup>5</sup> Henri Matisse, *Dance I*, 1909, oil on canvas, 259.7x390 cm (Museum of Modern Art, New York City), retrieved from <<http://uploads6.wikiart.org/images/henri-matisse/dance-ii-1910.jpg>> (last access 04.09.2016).



Before painting *Starry Night on the Rhone*, Van Gogh wrote: «A starry sky, for example, well, it's a thing that I'd try to do».

Whilst working on *Starry Night*, Van Gogh felt a deep sense of the sacred and wrote a «serene» letter to his brother Theo; here are some short passages of this letter:

«Arles, 28 of September 1888,

The starry sky painted by night, actually under a gas jet. The sky is acacia marine, the water is royal blue, the ground is mauve, the town is blue and purple, the gas is yellow and the reflections are russet gold descending down to green-bronze. [...] It does me good to do difficult things, it does not prevent me from having a terrible need of, shall I say the word – of religion – , then I go outside in the night to paint the stars. [...] There, I would like to arrive to reassurance that makes one happy cheerful and alive all the time».



Fig. 2 – Vincent van Gogh, *Starry Night Over the Rhone* (1888)

Art makes one happy in the same way as knowledge. Bateson writes (1972):

«All we need to be sure of is that, at any moment, achievement may

be just around the corner, and, true or false, this can never be tested. We have got to be like those few artists and scientists who work with this urgent sort of inspiration, the urgency that comes from feeling that great discovery, the answer to all our problems, or great creation, the perfect sonnet, is always only just beyond our reach, or like the mother of a child who feels that, provided she pays constant enough attention, there is a real hope that her child may be that infinitely rare phenomenon, a great and happy person».

We come across the *perfect sonnet* in music too, for example in the *Concierto de Aranjuez*, a composition by Joaquín Rodrigo written in 1939, probably Rodrigo's best-known work. Rodrigo, being not very satisfied with his previous works, during a banquet said that – bizarre premonition – the next night he would create his masterpiece. And so it was. He described the *Concierto* itself as capturing «the fragrance of magnolias, the singing of birds, and the gushing of fountains» in the gardens of Aranjuez.

In her extraordinary work, through iconic expression and body language, Frida Kahlo supported both narrative therapy and a form of biographic narration.

The main characteristic of Frida's art – who considers resilience as an existential mile-stone and expresses herself through the use of vivid and meta-significant colors – is her capability to conceive the unconceivable. The concept of «inter-culture» – so multifaceted and undefinable, though pivotal in pedagogical, psychological and sociological research – is expressed in Frida Kahlo's works through immediate emotional epiphany. In *Self Portrait Along the Borderline Between Mexico and the United States*, Frida shows her dual aptitude towards the «Land of gringos»: she wears unusual sweet pink frock and lace gloves. At the same time, she herself is far from being demure. As in her first self-portrait, her nipples show beneath her bodice; her face is poised for mischief and, again in defiance of propriety, she holds a cigarette. She holds a small Mexican flag too, which tells us where her loyalties lie. Frida stands on a boundary stone that marks the border between Mexico and the United States. In *Self-Portrait on the Border Line* a fire-spitting sun and a quarter moon are enclosed in cumulus clouds that, when they touch, create a bolt of lightning. By contrast, the single cloud over the United States is nothing but industrial smoke spewed from four chimney stacks labeled FORD: instead of encompassing the sun and the moon, the American cloud besmirches the American flag, whose artificial stars have none of the dazzle of Mexico's real sun and real moon. Whereas the Mexican side of the border has a partially ruined pre-Columbian temple, the United States has bleak skyscrapers.



Whereas Mexico has a pile of rubble, a skull, and pre-Columbian fertility idols, the United States has a new factory with four chimneys that look like automatons. And whereas Mexico has exotic plants with white roots, the United States has three round machines with black electric cords. The Frida nearest machine has two cords: one connects with a Mexican lily's white roots, the other is plugged into the United States side of the border marker, which serves as Frida's pedestal. Frida, of course, is as motionless as a statue, which is what she pretends to be. With the high-voltage irony of her withering glance, Frida once again looks like a «ribbon around a bomb». This self-portrait comes seventy years before publishing of the book *The Double absence* by Sayad (2001): in this book, the immigrant is «atopos», a person without place, displaced, a «bastard» between citizen and real outsider.



Fig. 3 – Frida Kahlo, *Self-Portrait Along the Boarder Line Between Mexico and the United States* (1932)

Musical language – proposed by the *concierto* and recalled by Nora Bateson, using the jazz-metaphor to tell about her father’s intellectual experience – allows us to complete our paper with a last intense suggestion, connecting Chavela Vargas’s<sup>6</sup> *Paloma Negra* to Frida Kahlo’s *Paloma*.

*Paloma negra paloma negra dónde, dónde andarás?  
[...] Quiero ser libre vivir mi vida con quien yo quiera  
Díos dame fuerza que me estoy muriendo  
por ir a buscar*<sup>7</sup>.

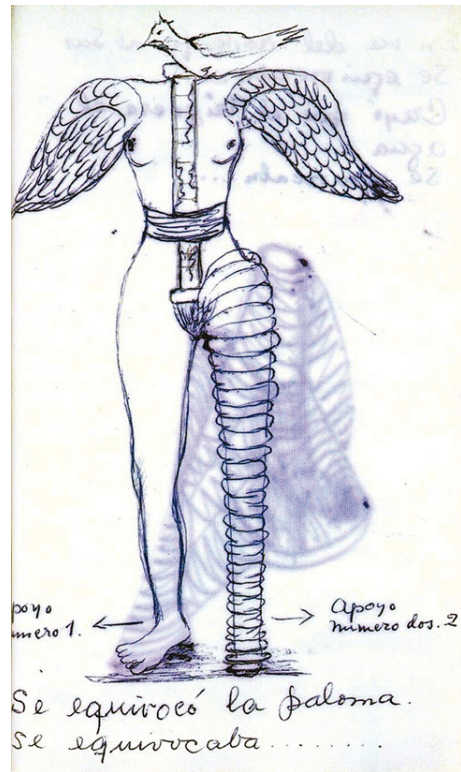


Fig. 4 – Selected by The Diary Of Frida Kahlo

<sup>6</sup> Chavela Vargas was a Mexican singer. She is especially known for her rendition of Mexican rancheras, but she is also recognized for her contribution to other genres of popular Latin American music.

<sup>7</sup> *Black dove, black dove where are you going? I want to be free and live my life with whom I choose. Lord, give me strength for I'm dying to go find her.*

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