

EDUCATION IN AN ECOLOGICAL-SYSTEMIC PERSPECTIVE

Flavia Dragoni¹, Renzo Campanella²

¹MIUR. Italian Ministry of Education, Research and University
fladrag@libero.it

²Department of Physics and Geology, University of Perugia
renzo.campanella@unipg.it

Abstract: The present work aims to track and support the need for a rethinking of the ways, often "dormant", to configure the process of teaching and learning, in order to promote an attitude of waiting between us and our knowledge, an hermeneutic capacity that goes beyond the pure description.

In other words, there is the need to develop new modalities to correlate the differentiation of identities to the symbolic and communication contexts, through correlation and recognition. Ecological-systemic education guarantees the diversities and supports the category of the possible and of the differences, exploring different horizon structures to build a methodology which is functional to a genuine process of inclusion.

It is an alternative trip that could lead to acquire an attitude to knowledge that demands humility and commitment, undertaking of responsibility in the encounter with the other, the construction of an interweaving of stories, that is the enhancement of the possibilities to experiment the answers to the problems, answers based on silence as a guarantee of words.

It is in particular in the work of Gregory Bateson that a new way of knowing is experimented. In this article this is the reference point: the mind connects different parts, captures relationships, relates to the educational dimension in an ecological perspective. Not to acquire a map that will replace another one, but as an opportunity to reflect on the actors involved in the educational relation and on the context in which this is actualized as a system.

DISCUSSION

The cornerstone of the epistemological conception of Gregory Bateson is an ecology of mind understood as a new way of thinking about the order and organization in living systems. In its literal meaning, ecology is understood as the study of the mutual relations between living organisms and the environment and the consequences of those relationships. Bateson uses as an example the evolution of the horse. This, he says, cannot be the result of the adaptation of the life of the only Eohippus to the grassy plains life, because these in parallel have followed that of the hooves and teeth of the horse. It is the context, constituted by both the animal and the environment, which evolves: i.e. a constancy persists in the relationship between the two elements, through forms of adaptation towards one another and vice versa, moment by moment. In living systems, therefore, not only mechanisms of genetic order are traceable, but also properties of intelligent adaptation. The methodological key that is proposed is a circular model.

Manghi (1990) says: "My' Bateson has little to do with the current vulgate who attributes him the authorship of harmonious universal principles capable of explaining every phenomenon. The road through this Vulgate, projects toward new global visions of reality, that is towards answers alternative to those prevailing in order to what to do, it is not one of those where you can run into Bateson. The ecosystem is another thing. It eschews the "high road" of seeking answers, frequented by preachers, therapists and scientists who are working on to promise salvations, healings and certainties, in this life or after. It prefers cross streets, beaten by explorers of questions, the streets that you do not know, in the sense of St. John of the Cross, that you have to follow if you want to get to the place you do not know".

To go through "cross streets" means taking the risk of challenging your own beliefs, your own mental habits: to abandon those that Bateson called "dormitive principles" because they do not leave room for questions; be aware of the limitations of our knowledge, without delegating to others the proposition of requests.

The eco-systemic perspective requires a rethinking of the destructive ways of conceiving the environment as well as our thinking, our mental habits. A so developed concept of ecology of mind is a harbinger of many educational implications. It emerges an idea of education as art, as a creative process that uses maps to not get lost in the unpredictable area of life, but also knows how to silence them to be able to meet a territory, to communicate with it. To educate and to be educated is a process that cannot find a pose and that shapes according to our way of thinking about life, which also includes the choices of aesthetic character, because the mental process operates through a "creative filter" whereby we attribute to things some forms rather than other ones. Demetrio (1996) says: "A good and happy training will therefore be that one that puts the learning in a position to benefit from everything in its path, establishing linkages". And only in the creation of connections, relations based on reciprocity, we can structure an ecology of ideas that will allow us to develop stories.

From an educational point of view it follows that isolating the child and the adult from the context in

which they live is illusory, since biologically impossible, because you cannot isolate a single component without distorting the whole. If, in fact, on the one hand, to be a part in the complexity of a new system is a difficult and tiring task, sometimes daunting, on the other it offers endless combinations of elements that are part of it. This means being able to deal with a problem from multiple points of view, therefore to have more resources available means to create new situations through which the whole system can evolve, including teacher. And not just the child.

The educational relationship is ecological since it is able to correlate both the differentiation of identities and the structures of connection, symbolic and communication contexts within which there are encounter and growth. It is ecological when it is configured as a "vital trajectory that corresponds to everything that we met by chance or by will (ours and others), but also to everything that we have been able to build with those found on the road" (Demetrio, 1998).

Still it persists in educational environments an understanding of the educator, the teacher, just as the primary cause of the pupil's cognitive organization and behavioral changes, seen within a cause and effect relation; but, in reality, the process of teaching and learning has a recurrent nature and it is not possible to determine the process, but only to attend to it: "Each of the participants in an interaction is both message and context for each other, and therefore takes part, with its settings with its interactive proposals, of a double stochastic combined process" (De Monticelli, 2003).

Within a complex epistemology, due to many authors, other than Bateson, that here it is not possible to take promptly into account, we have not to contrast two perspectives (or / or), but to consider them as different recursive levels, partial ways to segment the realities that acquire meaning to the extent that we are able to connect them, to make them communicate (and / and).

Closed interactions, or negative feedback, like mental habits, stereotypes, prejudices that are not completely eliminated, become present in each of us, so that we can learn with difficulty to be aware, to strive to control them, putting into question every time we introduce the transition from the rule, from control to regulation to the cooperative construction. If the old sailor, as Bateson says, already knows what he is looking for, he will not lose time surfing the Antarctic seas. As a foundation of everything there is the awareness that every person, and thus also the person with disabilities, is a system capable of self-organizing, of a continuing re-equilibration of his/her strategy of building the reality and every self-organization is by itself a change, regardless of the form that it can and knows how to achieve.

The educator has a function that requires a great commitment and undertaking a strong sense of responsibility, that of being a director, facilitator of experiences, preparing situations that promote learning places, organize the environment, emerge problems, modulating its support and providing additional energy that can feed that energy already present in those who faces.

An education that wants to define itself ecological is not content to collect data; instead describes constructs, relationships; approaches itself to the structuring of the other, to his being significant, to his way of being smart that can really grow and appear only in an environment that knows how to welcome him, because it can embrace diversity and promote the differences. It is an environment characterized by recognizable and therefore sharable meanings, by situations that promote connections between different skills and, at the same time, positive interactions between different identities, where even those who are in distress, those who are disabled, can claim and satisfy their right to be the subject of education and not to be reduced to be subject of the intervention because we shortsightedly catch in his existence only elements of liabilities that, in turn, lead us to reduce the complexity of the design to a management technique.

Education, thus understood, is exchange, is the possibility of building an ensemble, growing together inside a physical and symbolic structure that allows the players (and everybody is a protagonist) to connect to each other as in a dance, rather than being isolated in a vain defense of the individual himself.

The search for knowledge does not mean the discrediting of common sense, of the daily activity of the senses, of the imagining, and cannot consist in placing oneself on the defensive, looking for the causes, so that the educational activity remains without the slightest reflection.

Each one's own being is certainly an intuitive knowledge too; it is a partial knowledge but, whilst we realize it, and though often aware of the difficulty to grasp the expression, we attribute a strong claim of truth, not immersing ourselves in the effort, in the journey of discovery, from which you cannot leave unchanged. Discovery that is substantiated and is legitimate by building a relationship through spontaneous and reworked ways, through words and through non-verbal communication that we can offer to each other, even when the other seems to be able to propose only fragments of his identity.

In addition, the awareness on the part of an educator of the infinity of variables which every day he has to manage, and being conscious that, in haste, these can be grasped only for a small part, means that, for example, the opposition of a parent becomes a resource to draw upon to create new modes of action and thoughts, instead of being an obstacle to delete or correct.

Throughout our lives we encounter people, but often the bump is not transformed, not structured in terms

of the Encounter, which is an experience "originally bidder", in that it shows the other in its originality, in its carnality, in his thought; at the same time we are offered a way to make its knowledge, as long as we both open ourselves to the possibility of being available to the commitment that the encounter demands. "If you want to know, ask" says Pask. Commitment on the part of the educator, to modify, refining it, the modality to explore "another horizon structure", not stopping to a sensory perception, but promoting the transition from seeing to feeling, that gives the opportunity to build a bridge to the other structure, to the differences.

It is an attitude to suspension, to not presuming the knowledge of what it is shown, what appears, and this attitude is reflected in a waiting between us and our knowledge, it precedes and accompanies the undertaking of an interpretation vertex, and materializes in a listening skill of how the other asks us to be known, which does not dissociates the other pretending to explain him, that dilate the same concept of experience of how each person makes himself known as such, of what is essentially individual. The other does not show everything here and now, and asks us a very long time to get him known, to make a journey together where every destination is a starting point.

Therefore you need to assume an attitude that is embodied in the search for what unites us, to better understand what distinguishes us, a knowledge attitude that somehow the Id demands. But how can we become aware with humility and patience of the cognitive path that it offers us? Putting us on the road to build a real relationship where roles are not fixed, unchangeable: to qualify an educational relationship that, although characterized by asymmetry, does not make us arrogant, thinking of being able to accomplish the knowledge of a person. This knowledge does not end in the relation, but assumes it as an essential condition to start the building of a path of knowledge, where the encounter with the other means also encounter with yourself.

The first requirement, then, cannot be "what to do", but "where to start" to build an encounter, a common language, to learn to think. Even the child with disabilities, like any other person, is part of a story, is within a circuit where relations mingle and preferences are expressed, basic as well as specific needs. Consciousness of belonging becomes central, the common point to start so that these stories can in turn intertwine to give rise to a new path, full of meanings. To ask "where" means to "steal" time for making; this, when not improvised, yet takes account the subject, but too seldom the subject placed in a context. The questions relevant to "what to do" and "where", both legitimate, articulate two different times and the more attention is aimed to what to do, the more you risk to lose the sensitivity for the learning contexts, the ability to feel a creative part of a dispute and not determined by this. Many times, the more we engage in an action, the lesser time we reserve to thinking, because the times of a certain action are the restricted times of the immediate response, of the instant solution, of the short and straightforward explanation. The times of thinking are the long times of doubt, of the uncertainty in contrast to action, of questions which have not been answered, of theories to be validated, of the expectations that are disillusioned to create other ones more relevant. Yet often any doubt and waiting procure anxiety, the anxiety of wanting to show, and on the other hand test, your "special" knowledge; the anxiety of not having to waste time, indeed, to have to recover that time "lost", that every person with disability seems to impose on us.

Instead the uncertainty, the doubt that assails us at the beginning of a journey must bring forth a kind of reassurance, because it means that we are moving with respect to our intelligence, and to the one of others, which in turn experiences the doubt and the uncertainty.

When we bump into a new problem, often we act by instinct, and successively, if the experience had a positive outcome, those which were initially insights, become habits: other times, but also in new situations, the same patterns are repeatedly applied, compressing the originality of the other in attitudes typical of the category where we believe we can put him in. Thus even educators end up taking on well known and stereotyped behaviors, almost mechanically; and they interpret the actions of the other, providing explanations without having looked for them. To silence the "basics", the basic assumptions with which we are used to segment the reality, perhaps means to give ourselves the ability to catch not limited information about the system to which we belong, to select not only what can be immediately inserted in our maps, thus thinking that we have a clear view of reality; and it is in this silence that the possibility of the encounter emerges.

The encounter not only "is made" but "makes us", changes us; it is an adventure from which there is no unscathed escape; it is also the location of errors and illusions. The error is inherent to the process of knowledge; who is on the way is wrong, and it is untenable to separate knowledge from error because it is a constitutive element; it is the formulation of hypotheses that substantiate it because they prevent it from ending if we endure the discomfort, the cognitive and emotional suffering of having to abandon them, to be able to propose other ones, to refine the ability of listening, to be able to serenely listen, not thinking that always one must have the answer, but learning how to increase the possibility of response. It is so that the silence, the waiting, is "an essential possibility of talking", and allows us to begin to enter into the present of the other, in a story, not bewildered by the anxiety of the future.

BIBLIOGRAPHY

Bateson G. (1972). *Steps to an Ecology of Mind*. Chicago: The University of Chicago Press

- Bateson G. (1979). *Mind and Nature: A Necessary Unity*. Cresskill, NJ: Hampton Press
- Canevaro A. (2006), *Le logiche del confine e del sentiero. Una pedagogia dell'inclusione (per tutti, disabili inclusi)*, Erickson, Trento
- Demetrio D. (1998), *Tornare a crescere. L'età adulta tra persistenze e cambiamenti*, Guerini e Associati, Milano
- De Monticelli R. (1998). *La conoscenza personale*, Guerini, Milano
- Husserl E. (1913). *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie*. In *Jahrbuch für Philosophie und phänomenologische Forschung*. 1 Halle a.d.S..
- Manghi S. (1990), *Il gatto con le ali. Ecologia della mente e pratiche sociali*, Feltrinelli, Milano
- Kenny V., *La nozione del sacro in Bateson. Cosa ci può insegnare per vivere costruttivamente?*, in Longo O. G. (2003), *Il Simbionte*, Meltemi, Roma
- Petter G. (2006), *Il mestriere dell'insegnante. Aspetti psicologici di una delle professioni più interessanti e impegnative*, Giunti, Firenze
- Sclavi M. (2003), *Arte di ascoltare e mondi possibili. Come si esce dalle cornici di cui siamo parte*, Bruno Mondadori, Milano