

# FROM APODICTIC TO PARALOGIC: NEW MEANINGS OF ENVIRONMENTALLY-LITERATE CITIZENSHIP. A VIEW FROM MEXICO<sup>1</sup>

Édgar González-Gaudio  
Alicia de Alba

## Crisis and controversies

As has occurred in other regions of the world, in Latin America we find signs that express, in their own way, discussion on the paradigmatic crisis of knowledge reproduction and education (Brandao, 1994; Leff, 1994; Puiggrós, 1990; de Alba, 1995). This crisis refers to the conceptual changes to a world, about the reality and ourselves (*weltanschauung*) which extend the academic framework and remains in the very 'core' of social practices. This movement has been the result of deep dissatisfaction with wasted dominant education and schooling paradigms, asking for answers questioning the establishment of life's different dimensions (Popkewitz, 1984; Apple, 1982; Giroux-McLaren, 1989)

The controversies have come to environmental education, particularly to the research's groups (Vargas, 1992; Mrazek, 1993). These new conditions have generated reactions related to the dominant positivist paradigm.<sup>2</sup> Their aim is to find alternative answers that allows us to obtain better explanations of the reality problems and a new agency. The polemic results have not influenced most of today's environmental education activities, despite calls to arrive at eclectic paradigmatic approaches. Most discussions adhere to the critical framework defined by Habermas (1982), as Popkewitz (1982) and other important educational researchers did. Others go further, questioning not just the paradigmatic crisis, but the paradigm's influence in their own constitution of scientific knowledge and its autonomy against production processes.<sup>3</sup> This is an essential issue in understanding specific surroundings in the constitution of environmental education.<sup>4</sup>

Other critics, embedded in the complex postmodernist movement, such as the Dora Fried

---

<sup>1</sup> Translated by Gabriel García-Ayala. Published in: *International Research in Geographical and Environmental Education*. 1996 (5) 2, 140-147. We want to thanks to Rick Mrazek for his friendly support to publish these ideas.

<sup>2</sup> The positions about the polemic are of different kinds, varying from those that are embedded in a radical and straight confrontation (Robottom, Hart), to those which propose a disciplined eclecticism that recover 'the better' of the current paradigms. On the other hand, it might clarify that in this controversy, the concept of dominant paradigm refers to a quantitative perspective. It implies, of course, that the educator's community constituted this way, legitimizes their own position in the decision, financing and institutionalisation processes.

<sup>3</sup> We agree with Noel Gough (1993) 'that the term "metanarrative" is in large part interchangeable with "paradigm"... (and point out) the need for a critical pragmatism to be applied to all narratives'.

<sup>4</sup> From this point of view Ian Robottom (1993) states that in environmental education one reproduces the contradictions that underlie the broad education field. We believe this is partially true due to the fact that the environmental education field has printed its own specifications, but at the same time, has generated its own contradictions.

Schnitman (1994), suggest putting the accent in other places, beginning from the infinite intertextuality that defines the contemporaneous, where science and culture are constructed processes that constitute open systems. Inside culture factors, less visible but not less constitutive of the scientific inquiries, there are the narrative practises and the communicative process. All of this implies, in a paradoxical way, that even as the subject is abandoned, there is a new return to the subject.

Such abandonment and return were made necessary by the assumption of a vanguardist-centred subject, able to determine and decide, like a subject-subjected by the structures, and determined by these. On the other hand, the dominant approach of science —the positivism— considered the subject, and its subjectivity, as an element which disturbed the research process. Science was the object's world. From this perspective, one scientific view about education constituted a paradox, because it destroys its finalities. The restoration of the subject into the science world is one of the revolutionary effects about the paradigmatic movement. So the literate citizenship and education as a whole, find a new philosophical (teleological, ontological, axiological), theoretical, and methodological framework.

When education lost its classical frameworks, the education submerged itself in a new universe of meanings and intentionalities. It emerged invested with a new complexity. The Cartesian axes of our coordinates of meaning vanished, and become in "frozen images" about science, education, social values, which produce new questions and a new unknown field.

So, a critical literacy citizenship would tend to implicate the subjects, not just only giving them some intellectual instruments to decode the readings about reality. They will join the subject to the social construction convergent parameters, from which they will write their interpretations in a different crucible of meanings, like subjects with their own surfaces of inscription.

### **The constitution of environmental education**

In this controversial framework, accepting that most approaches in environmental education are still subordinated to the natural science model, it is important not just to check the theoretical and methodological strategy, but the construction of point-objects and their consequences in the shaping of environmental education metanarrative: the protection of nature and its associated discourses.

The above is important because, at the current moment, there is an erosion about the absolute nature of social values. In this system of thought, the protection of nature can not longer be approached in axiologically neutral terms, which has impulsed the positivist paradigm, and accepted, also, by a number of progressive environmental educators. The protection of nature is a concept mediated by others slopes of significance, such as poverty, consumption and equity. These slopes give different meanings that can not become universal meanings *per se*. This lack of certainty does not weaken the field, but draws a new profile based on many specific answers. There are too many poor people in the world, who do not have the same social, cultural, and economic level of development. But often the world assumes more frequently the presence of social subjects who are prescindibles. The huge regional asymmetries throughout the world, are embedded in the consciences of those living in the comfort of developed world, an inevitable phenomenon of the development process. With these unresolves issues, how can we pretend to have a literate citizenship? We, the subjects and our discourses that constitute the environmental education field carry on, consciously or unconsciously, in our value positions and activities to defined postures

against this establishment. The dominant postures inside the field have given it directions and interpretations, which have been reinforced by circumstances of different order. These include:

- The specific, often deficient, training of environmental educators that continues to reduce the environment to nature, without having a real social dimensions to the problem;
- training focused by a big 'naïve' and depolitic attitude (politic anomia), combined with wilful voluntary work;
- a trend in the field related to the quantification, objectivation and generalisation, among others properties that boast of the positivist approach, has been central to environmental education in a experimental laboratory of techniques and proceedings full of certitudes (apodictic).

In short, we are in front of a 'heteromorphe' and multi-referenced field, that oscillates between focusing attention on the environment or on education. These cannot reach a critical conscience of a social constructedness process of the environment that is also the subject constructedness process. This process necessarily derives into new identities rooted in the culture and the territory, but at the same time is rooted in commitments with the Others (human rights, peace, democracy, equity —not just intergenerational but intragenerational—, gender, and religion). Environmentally literate citizenry includes these complex dimensions.

### **The formative challenges to environmentally literate citizenship**

In the context of these debates, it is important to build a theoretical corpus, which helps us to obtain critical formation, allowing us to red better readings the issues that underlie environmental education in order to guide the pedagogical intervention toward more emancipatory understanding and from better literate citizenship transactions with the education's subjects.

It is fully recognised that the environmental field is deeply crisscrossed by several interest conflicts, most prominently economics. It would then be very naive to think that educational proposals are not influenced by these interests. How do we recognise the proposals and the intentionalities which underlie the narratives of environmental education? How do we identify the antagonist coexistence of the narrative from this language's games? How do we assume pedagogic positions against environmental problems? It is evident that the answers are included in the framework of a critical function for the environmental citizenship.

Related with an environmentally literate citizenship, we might consider that eroded credibility and the rooted skepticism have begun to generate among many social groups. The lack of possibilities to participate efficiently to modify the direction of the developing process are generating ambivalent positions amongst the subjects, who have introduced more complex levels for educational action as a desire of acting and hopelessness.

The precarious outcomes of activities related to recycling or reforestation cut off the possibilities to extend the commitments toward the whole society. These protagonic and extreme interventions usurp a social representativeness. Nevertheless, many non-governmental organizations represent an emergent and unusual social phenomena in Mexico, through which they have expressed

sometimes with a strident and blurred attitude, collective interests which were not represented in the political parties. As Garreton (1994) says:

Since the technocratic principle tends to be elitist it substitutes the social actors in the real story, and tends to be accompanied, paradoxically in theory with two principles antagonistic actions; the corporate principle, that sees the actors in a unilateral way, their own particularity and, thus, generalizing their own instrumental action principle... (but) on the other hand, one refusal of the politics from the irrationalist extreme, that replaces politic action with the universal principle of the expressive-symbolic logic.<sup>5</sup>

## References

- Apple, M.W.**(1982) *Cultural and Economic Reproduction in Education. Essays on Class, Ideology and the State*. London: Routledge and Kegan Paul.
- Brandao, Z.**(ed.) (1994) *A crise dos paradigmas e a educacao*. Sao Paulo: Cortez.
- de Alba, A.**(ed.) (1995) *Posmodernidad y Educacion*. México: CESU/UNAM-Porrúa.
- Fried Schnitman, D.** (ed.) (1994) *Nuevos Paradigmas, Cultura y Subjetividad*. Buenos Aires: Paidós.
- Garretón M., M.A.** (1994) Transiciones ambivalentes, *Etcétera*, México. (81): 30-34. (De su libro *La faz sumergida del iceberg. Estudios sobre la transformación cultural*. Santiago, 1994: CESOC).
- Giroux, H.A.** (1981) *Ideology culture & the process of schooling*. London: The Falmer Press.
- Giroux, H.A. and McLaren, P.** (1989) *Critical pedagogy, the State and cultural struggle*. Albany: State University of New York Press.
- Gough, N.** (1993) Inquiry and critical pragmatism: Liberating research in environmental education in
- Habermas, J.** (1982) *Knowledge and human interest*. London: Heinemann.
- Leff, E.** (1994) *Ecología y capital. Racionalidad ambiental, democracia participativa y desarrollo sustentable*. México: Siglo XXI.
- Mrazek, R.** (ed.) (1993) *Alternative paradigms in environmental education research*. Troy;Ohio: North American Association of Environmental Education.
- Popkewitz, T.S.** (1984) *Paradigm and Ideology in Educational Research: The Social Functions of the Intellectual*. London: The Falmer Press.
- Puiggrós, A.** (1990) *Imaginación y crisis en la educación latinoamericana*. México: Patria. (Los noventa, 21)
- Robottom, I.** (1993) Towards a meta-research agenda in science and environmental education, *International Journal Science Education*, 15(5): 591-605.
- Vargas-Neyra, M.** (ed.) (1992) *Temas ambientales. Aportes del Convenio Andrés Bello*. Bogotá: SECAB-Fundación Konrad Adenauer.



---

<sup>5</sup> Free translation.

<http://anea.org.mx>

Documento disponible en  
<http://anea.org.mx>