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The Group as a Device*: the ecosophic micro-intervention in educational pro-cesses within environmental education

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Abstract

How does one go about designing modes and forms of coexistence that will induce subjective changes in people, contributing at the same time to better their relationships with others and with the environment, examining the institutionalization of human life in the contemporary world? This is the driving question of the present research work. The hypothesis presented is that this can happen through environmental-pedagogic micro-interventions with their main focus on group processes and an analysis of the role of the researcher in the research process. Ours is a research-work/intervention based on the epistemology of institutional analysis, more specifically on the ecosophy and cartographic method of Félix Guattari. This design of environmental education highlights the relevance of three ethical-aesthetic registers – the social, mental, and environmental ecologies – and provides the theoretical support needed to our analyzing the ability one has to re-invent oneself and the environment from the perspective of an environmental-education process. The group device aimed at intensifying the transversalities and the emotional, inventive, affective, imaginative and intuitive human capacities, favoring collective learning and participation, as well as autonomy, solidarity and self-managing processes. The activities carried out were presented as possible alternatives to develop such capacities by putting into motion instituent forces within the group processes, as well as encouraging action-reflection and caring for oneself, others and the environment.

Keywords

Environmental education – Cartographic method – Group processes – The three ecologies – Education.

The institution, the group device and the production of

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other coexistence modes

In a world where social inequalities grow deeper and deeper and environmental problems multiply themselves, one must not only theorize but rather create and apply interventional devices that, when summed up with other practices and other research works, will grant us a few steps forward in solving these problems. Such is the purpose of this research work, as we present different modes of coexistence that originate from micro-political pedagogic interventions in formal, non-formal, and informal teaching environments – in order to promote caring for oneself, caring for others, and caring for the environment, in educational processes within environmental education.

The interstitial relations between theoretical reflection and practice, between what happens within the spaces of intervention and what happens in the extramural world, interstitial relations that will inhabit between our conscious and unconscious beings, groups and institutions, point out to the existence of inventive potentials in borderline areas, in the between-places. This is what happens when the human being takes a risk by making incursions to places outside their safety nets and beyond their routines, disputing their own certainties, moving across what is known, towards the frontiers of education, arts and philosophy.

Therefore, it is the aim of this research work to focus on experimental processes for new ways of living and connecting, without the imposition of any new categorization of universals, but rather articulating some singular dimensions of the real in order to reconstitute the existential domains previously known, thus opening lines of potentiality that will encourage the human being to reinvent herself as well as the world in which she lives.

In addition to those problems related to the social division of work, analyzed in depth by Karl Marx, we deem it necessary to go further into the analysis of other forms of control that were instituted with the modern era, thus broadening our understanding of the socio-environmental questions in the contemporary world. From a conceptual viewpoint, one must bear in mind the three moments/movements that comprise an institution:

[...] every institution presupposes (i) a movement that generates that institution, i.e., the instituent; (ii) a result, i.e., the instituted; and (iii) a process, i.e., the institutionalization [...] The instituted performs an important historical role because it is in order to organize those social activities essential to the collective way of life. For the instituted to be efficient, they should remain open to changes just as the instituent follows the social *becoming*. However, the instituted tends to remain static and immutable, preserving *de juri* states that have already changed *de facto*, thus becoming resistant and conservative [...] Examples of institutions are: language, family ties, social division of labor, religion, justice, money, the armed forces, etc. An important cluster of institutions is, for instance, the State. In order to perform their regulatory function, the institutions are actualized in organizations and associations [...]. Institutions regulate human activities by prescribing actions forbidden, actions accepted, and actions that will not matter much one way or another. Therefore, institutions may be expressed by laws (principles/fundamentals), norms, and habits (BAREMBLITT, 2012, pp. 156-57).

We live in a society in which a particular form of regulation (DELEUZE, 1992a/2005) is pervasive: the incessant control in an open milieu. Control devices become more and more sophisticated as the need grows to regulate behaviors and keep public order. There is a logic of confinement that spreads throughout our society in its entirety, and not necessarily there will be actual walls separating the indoors from the outdoors of the social organizations (schools, prisons, business corporations, hospitals, etc). Our bodies were disciplined and this discipline was gradually introjected (FOUCAULT, 2013), allowing the exercise of power to become more discreet and more effective.

In order to understand the devices that spread to other human activities and will produce bodies more and more limited in their movements and forms of expression, one must understand how the regulatory processes work – processes that become gradually established in our daily lives, making us human beings move in fragmented, repetitive and predictable/controllable patterns.

However, control devices are capable of having alternative configurations and more than just one possible orientation. According to Deleuze, Foucault alters the map of devices by revealing their lines of subjectivization. Foucault does so “not to let them [control devices] be encapsulated within the insurmountable lines of force that impose clearly defined contours” (DELEUZE, 2005, p. 86). Foucault suggests that the very same society that disciplines bodies can also be an environment for the production of subjectivity, one that could generate new forms of power and of knowledge. At any given moment we can actualize our body ability to render radical and even unthinkable actions by re-claiming this ability and making it move in novel ways, for the human species has this ability to interfere with itself, to recreate its existential domains, and to change the course of events. We can be creative and we can reinvent ourselves because we are bodies geared towards diversity, capable as we are of differing even from our own selves.

The device is defined by what it offers in terms of novelty and creativity, at the same time signaling its ability to transform itself, or to fissure right at its inception for the benefit of a future device, unless there is a decline in power of the more solid, more rigid, sterner lines. Lines of subjectivization – as they free themselves from the dimensions of knowledge and power – seem to be particularly capable of devising paths of creation that, if on the one hand they do not cease to fail, on the other hand and in equal measure they are resumed and modified until there is a rupture of the old device [...]. We belong to and act within devices. What we call the actuality of a device (our actuality) is the novelty of a device in relation to the former devices. The newest one is the actual one. Actual is not what we are, but rather that into which we are becoming, what we are in becoming, i.e., the Other, our becoming-other. It is *sine qua non* this distinction, in the whole device, between what we are (what we will no longer be) and what we are in becoming: the former belongs to history and the latter is the actual part. History is a file, an outline of what we are now and of what we no longer are, while the actual part is a sketch of that into which we are becoming (DELEUZE, 2005, pp. 92-3, translated from Portuguese).

In the present research work we propose to perfect the very micro-social device of the group, with the goal of better serving the production of both subjectivity and resistance

to the new forms of domination – for we know that the current forms of domination could at any given moment be rearranged at the crossroads of more solid, more rigid, sterner lines, lines of either stratification or sedimentation.

Another definition of device is the following:

An assembly or an artifice producing innovations that will generate events and becomings, update virtualities and invent the new radical. In a device, the goal to be achieved and the process it generates are simultaneously immanent and dependent on each other. A device comprises a semiotic machine and a pragmatics, and is incorporated to the system by means of connecting heterogeneous elements and forces (multiplicities, singularities, intensities) that are ignorant of the formally constituted limits of molar entities (strata, territories, the instituted, etc). Devices, as generators of absolute difference, produce revolutionary and alternative realities that transform the alleged horizon of the real, the possible, the impossible (BAREMBLITT, 2012, p. 147).

The question that guides this research work aims at understanding in which way the group device can contribute to the production of coexistence modes that will eventually lead to the emerging of latent potentialities of the human, of our sensorial, intuitive and inventive abilities, encouraging one's taking care of oneself, the others and the environment.

This implies breaking up with a type of alienation that is synonymous with physical inactivity, as well as with other forms of alienation: a decreasing ability to think and act independently, a lack of political engagement, a growing feeling of loneliness and isolation, an intellectual inertia, a passive attitude in face of socio-environmental problems, a dullness in creativity and expression, an indifferent or careless attitude towards other people and the world, mental disturbances, and lack of sensitivity.

Félix Guattari's institutional analysis and ecosophy

Intervention as defined in this research work is a concept based on epistemological parameters used in institutional analysis as developed in France since the 1960's. It aims at understanding and transforming the various senses and meanings that are found ingrained in the institutions, and our goal is to question these senses and meanings from a socio-political viewpoint. In a way, this research-work/intervention brings about ruptures in the expectations put forward by the research-work/action² movement, especially in those expectations concerning the relations between theory and practice, subject and object.

The field of analysis of this research work is undoubtedly political, and is constituted of multiple forces that will spread by contagion and contamination. René Lourau³ (1997, 2004) states that processes occurring in this political field of analysis are brought about by transduction, diffusion, contagion, contiguity, or proximity - in transversal or rhizomatic

2- It champions an amalgamated theory for the researcher's commitment. Our data survey includes evidence from the subjects, with interviews, questionnaires, content analysis, and checking with the subjects themselves the information collected. It aims at raising awareness and changing behaviors.

3- Transduction-implication.

dimensions, - and go behind and beyond ideas of deduction and induction in vertical dimensions such as the production of knowledge. In this complex universe of field work, the relation subject-object is always implicated and traversed by becomings.

The field of the empirical – defined here as a field of intervention – is a space delimited by the possibilities that (i) emerge during the artistic-pedagogical activities and (ii) allow for displacement in the flowing of events, in consonance with the doors that open and close, according to continuities and interruptions.

The research-work/intervention is made up like a sort of adventure through unknown territories, due to the permanent process of transformation and adaptation to the groups and spaces where the pedagogical interventions take place. It highlights the importance of learning to deal with both the unexpected and the uncertain in the human body, as well as the importance of multiplying other modes of subjectivization – open to surprises, doubts, turmoils, and oscillations. This study proves to be a potential producer of senses and meanings, given that the work method employed can implement new forms of relating – more sensitive, more inventive and less oppressive, aesthetically pleasing, therefore disputing the instituted forms and glancing at what is beyond the limits of the instituted dimensions. And this “beyond the limits” is an unexplored (and may even be a non-existent) territory, one that through pedagogical interventions we try to invent, thus producing other worlds, other possibilities of coexistence, new territories, other dimensions for the real through a proliferation of forms of caring.

Therefore, a collective agencement⁴ (GUATTARI, 1981, 1992) develops so that new ways of thinking and relating can emerge, often connecting different and even contradictory events comprising this study’s field of intervention, when a multiplicity of lines proliferated during (i) the lessons taught and (ii) the micro-interventions carried out by the students, as well as (iii) in the meetings of the CNPq research team and (iv) in the meetings of the Interactive Theater Group; furthermore, (v) in activities developed by NGO Comunidade Casa do Caminho and (vi) in our countless informal conversations about personal – i.e., non-academic – issues; in our sharing of dreams and utopias; in the collectively written texts and in the joint planning of tactics and strategies of action; in our participation in academic events, university courses, and other extension activities; as well as in the multiple sentiments that emerged during our research process. The surfacing of all these multiplicities greatly enriched our social relationship, thus contributing to (re) acknowledgement and use of the values of the participating groups.

The institutional analysis highlights certain alienations and oppressions, favors critical analysis, and takes interventions to be innovative forms of relating, disputing the instituted forms. It encourages the emergence of “self-analytic and self-managing circumscribed processes (whenever this is the case), with the proviso that these processes will expand to the point when they will have reached a generalized and revolutionary extent” (BAREMBLITT, 2012, p 137). Thus, the pedagogical interventions took place not only at the university, but also in community spaces, on the streets of the city, health-care units, hospitals, schools, events, and neighborhood associations – that is, in both

4- Agencement = social and spatial assemblage (Translators’ Note)

public and private spaces. In short, this is a group device whose main goal is to ponder, reflect by means of acting, intervening. What matters is the connections, the interchanges, the exchanges, by means of tackling with the *intermezzo*, the in-between places – not only taking refuge in the pondering parts, but also operating, creating, calling out to others to engage in the creative process. With solidarity. The pedagogical intervention makes both difference and singularity come to surface: multiplicities emerge from the given conditions and operate in the same scope of these conditions, impelling humans to transform themselves in the search of other modes of coexistence, encouraging them to bring about spaces for the production of the new and of other events.

The interventions examined topics related to environmental questions from the point of view of the relations between the human and the non-human (permaculture, health in terms of food intake, organic agriculture, eco-citizenship, biodiversity, climate changes, ecotourism, global warming, alternative energy sources, water resources, riparian forests, natural disasters, etc), and topics related to social questions from the point of view of the relations that the human builds with other humans (social movements, the media and social communication, the State, group processes, the relation between the individual and society, money, social exclusion, capitalism, globalization, religious faiths, processes of socialization, modernity/postmodernity, transcultural issues, social classes, race and gender, etc).

The pedagogical interventions contributed to the processes of human education, for the human is in this perpetual game between virtual and actual forces, cultural and natural forces; the human may encourage actions and yet not join in them, but will always make alliances that will be intense, though not eternal, much less subservient. The interventions were orchestrated by a teacher-researcher-militant collective that affects and will be affected together with the group and from the actions of the group while collectively constructing and opening a pathway to other processes of differentiation (not the identical, not the identity). The pedagogical interventions favored modes of collective subjectivity under-construction – without any goals of creating models or imposing solutions, with the expectation of an ethics of the event driven by the precipitation of the actuality.

The result of these interferences and mediations contributed to having the subject become different from what she is, being herself. And this is possible through a set of practical-theoretical activities that address the problems inherent to the relations the human establishes, in terms of self-care and caring for others (mental ecology), in terms of what the groups of subjects brings about in the domain of social ecology, as well as in terms of caring for plants, animals, soil, air, water, etc – activities which scrutinize the boundaries between the human and the nonhuman from the viewpoint of environmental ecology.

Our device put together practical-theoretical elements from the Theater of the Oppressed, by Augusto Boal (2014); from somatherapy, by Roberto Freire (1988); from psychodrama, by Jacob Levy Moreno (2012); from the operative groups, by Pichon-Rivière (2009); from biodance, by Rolando Toro (2002); from sociopoetics, by Jacques Gauthier (2012); from clowning, by Jean-Pierre Besnard (2006, 2014); and more recently from the schizodrama, by Gregorio Barenblitt (1982, 2004).

In the epistemology of institutional analysis one finds ecosophy (GUATTARI, 1990, 2015), the very concept of environmental education that is the cornerstone of the present study. Ecosophy makes explicit our need to produce a way of thinking that will surpass the limits of a Cartesian logic and will dispute placing the human as the center and the measure of all things. To Guattari, knowledge must advance to such a point that the moment comes when we can finally understand ourselves and we can become integrated with other beings, breaking through borderlines that separate human nature from other living beings and natural goods. Through political articulations and daily practices, a broader questioning of social norms and premises can emerge – this is what our pedagogical interventions have revealed so far.

The starting point of the ecosophic concept of environmental education is the body-environment relationship, and its challenge is “to facilitate the free flow of production and desire in life – and life in all its facets: biological, psychic, communicational, political, ecological, etc.” (BAREMBLITT, 2012, p.151), providing a learning experience that unfolds in the transformation of oneself and of the environment in which the body is inserted.

When I use the word *body* I am referring to the organism, muscles and blood, tendons, arteries, bones, vital functions, digestion, but I am also referring to the historical and cultural tissue that constitutes the living body – vivid, motor, constituted in space and time. The human body demands investment and restlessness, and materializes aesthetic experiences. It is language, cybernetic device, genome, phenomenon brought about by media and television. It is a microscopic universe, bacterium, virus... environment (AMARAL, 2013, p. 140).

The body re-creates itself with each and every moment when it plunges into the domain of the pure affections, identifying itself with eternity and chaos. Affection is not only human, for what is human is our feelings, our sentiments. Affection is a vital potentiality that traverses the body, allowing it to create while it resists to servitude, mediocrity, the unbearable, shame. Deleuze’s contributions point to the fact that the body will resist when reinventing itself and the environment – defined as *a place of exchange* in multiple dimensions. Every time body and environment interact in the process of intervention, other correlations of forces (more powerful and transforming) are generated between culture and nature, matter and energy, actual and virtual, reason and intuition, instituted and instituent, popular sayings and scientific knowledge, etc. And then the human recomposes her own subjectivity by means of a *praxis* and an ethics of the sensitive.

The relations experienced in the intervention process are caused by the existence of a social environment that encourages the exchange of different life stories and different worldviews, with the coexistence of diverse points of view (religious, aesthetic, political, philosophical, epistemological, etc.) and with the interaction between different ethnic groups, social classes, genders, age ranges, etc. They are modes of social interaction negotiated through our caring for human relations (when we cultivate relations of friendship, companionship, solidarity, affection, etc.), and through our caring for our relation with the environment (when we cultivate new ways of perceiving and dealing with other animals or plants, the earth, the oxygen, the water, etc.). Therefore we re-invent

caring for, touching, seeing, feeling, listening, speaking, affecting and being affected by others and by the environment – through artistic-pedagogical resources, and experiences that take place when we are in direct contact with Nature.

Environmental education (AMARAL, 2013) should be based on an ethics of a permanent re-invention of oneself and of the world, encouraging the human to go into a search in an attempt to transform herself, to some measure, in the very environment in which her body inhabits. It should encourage us to seek certain possibilities of exchange with the environment that are open to all sorts of becomings: becoming-water, becoming-plant, becoming-animal, becoming-non-human... *becoming-other*. This is by no means a passive process, for the human is transformed when transforming. Becomings promote sensitiveness and caring for life, given that in the moment I experience being an Other (becoming-water, becoming-air, becoming-bird, becoming-fish, becoming-stone), I allow myself to exist from the perspective of an Other, therefore allowing myself, for instance, to experience ecological unbalances caused by our capitalist society, that destroys life for profit and the wealth of a minute portion of the population.

The research-work/intervention reveals the importance of learning how to deal with both strong and weak points of working cooperatively, of dealing creatively with oppression, of feeling and perceiving life from other angles and perspectives. The interventions have allowed the participants to learn a bit more about the power of emotions, impulses and sensations. Thus the periods of intervention are important because they make the body move purposefully, they let go of alienation, and they guide the human into action, creating the conditions for a possibility of having this human express her sensitive, aesthetic, and reality-changing capacities.

Analysis of data as produced in the pedagogical intervention

In this section, as a result of the analysis of some of the pedagogical interventions implemented, we can outline the operation of the device. The intervention analysis refers to the *group processes* of activities carried out in the Postgraduate Program in Environmental Education⁵ (between 2009 and 2016) of a Brazilian government-funded (federal) university. Such activities include working with a CNPq (Brazilian research agency) research team, called As Três Ecologias de Félix Guattari (The Three Ecologies of Félix Guattari);⁶ working with the university extension project called Grupo de Teatro Interativo: laboratório de pesquisa e intervenção socioambiental (Interactive Theater Group: socioenvironmental intervention and research laboratory);⁷ and participating in the activities developed by the NGO Comunidade Casa do Caminho.⁸

5- Two university courses were taught: *The three ecologies of Felix Guattari, I* and *The three ecologies of Felix Guattari, II*.

6- The research team analyzes and participates in the activities carried out by the NGO Comunidade Casa do Caminho and by the Interactive-Theater Group.

7- This is where seminars are carried out, as well as social-environmental micro-interventions in the community and research-laboratory workshops. The activities are supported by our University's (FURG) Postgraduate Program in Environmental Education and by the Audiovisual Laboratory for Research in Environmental Education.

8- Since 1998, the NGO has been working in the town of Pelotas, RS, Brazil, and in neighboring rural areas in the countryside, active in the fields of health care and environmental education. The poorer citizens are granted assistance for free. For more information, please watch <http://www.>

One of the interventions conducted by the CNPq research team The Three Ecologies of Felix Guattari, at the IV Forum of Professional Master's Degrees in Nursing, Nov. 25- 27, 2014, at the Fluminense Federal University (Universidade Federal Fluminense - UFF), in Niterói, RJ, shows the operation of the device and its potentiality to promote the development of other ways of living and relating to oneself, others, and the environment.

The pedagogical intervention, a workshop open to the Forum participants, entitled Aesthetic Experiments of Caring, was carried out according to the following steps: (1) introducing the participants (instructed to introduce themselves to the group not by saying "who you are," but rather "who you would like to become-to-be"); (2) body relaxation and stretching; (3) technique of the senses⁹ (blindfolded, participants were instructed to use the other senses to get in touch with the objects placed in their hands: fruit and various spices, a hot water bottle, cosmetics, and ice cubes in a plastic bag); (4) watching to a couple of videos available on the internet (*Atrevete*¹⁰ and *Elephant Gun*¹¹), followed by an informal group chat (to examine the relevance of becoming-other: becoming-child, becoming-lunatic, becoming-sea, becoming-animal, etc., as a way getting to know oneself and imagining new ways of relating to yourself and the world); (5) the blindfold-walking technique¹² (the participants work in pairs, and one of each pair is blindfolded while the other guides the first one outdoors silently); (6) the drinking straw technique (with sheets of paper they manufacture drinking straws, after which they must walk outdoors led only by what they see through the opening of the straw – the other eye being covered, as a way of perceiving and enhancing transversality); (7) technique of the forum-video (three volunteers are invited to present a clinical case where a registered nurse and a nurse are tending to a patient who takes the point of view of an actor in motion, given that she has a camcorder and is using it to film the action).

When the seven activities come to an end, each participant is asked to say something about the experience. Most participants commented on guiding and being guided, describing the bond and the trusting relation they had established with their partners as a pair. Another point was, they were astonished by an environment where they walk through on a daily basis when the paper-straw technique allowed them to see it as if for the very first time. The activities made them reconsider caring for themselves, others, and the world. Still on looking through the paper straw, two participants commented on how hard it was to see and how anxious they felt during the activity, due to the discomfort caused by this other perspective of the eye. However, in this process of transversalization there were those who described the opportunity to see "details, and a wealth of things moving that we are not used to seeing." A participant reported that "getting to look at things slowly, bit by bit, can be way more intense than looking at the world as a whole." Another participant's comment was, looking at "objects from a distance can also cause your senses to sharpen, especially your hearing. It is noises that

[youtube.com/watch?v=FgVLxvXk3-U&feature=youtu.be](https://www.youtube.com/watch?v=FgVLxvXk3-U&feature=youtu.be).

9- The technique of the senses is employed by Jacques Gauthier to collect data for research works in sociopetics.

10- http://www.youtube.com/watch?v=xk-xl_nY2Co

11- https://www.youtube.com/watch?v=SWSz_PAfgNc

12- A technique used by Augusto Boal in actor training for the theater in order to have actors develop mutual trust.

prevent people from bumping into each other, and you have to move in a more circular way in order to move forward.”

Subsequently, the participants were requested by e-mail to answer the following questions: (1) What clues has the workshop provided about what might possibly lead you towards your turning into that which you would like to become in the near or distant future? (2) What clues has the workshop provided about what might possibly be preventing/hindering you from trying to achieve your wants and desires?

Among the answers, there was a participant who valued the learning and praised the challenge that led her to deal with unusual situations that expanded her existential territories. In this sense, she pointed to the emergence of a potentially active force capable of promoting the development of other ways of living and relating to herself, others and the environment:

The workshop helped me discover my internal fears, my vanities, and my worries. It made me reflect on what I have already achieved in my life and what I did to get there, as well as on what I have not yet achieved and why not! I visualized my challenges and my potentialities, I could reflect and I could get to know myself better. [...] I was born with wings... to conquer new frontiers, encouraging those around me and my family and turning myself into someone who is capable of facing new, constant challenges in order to come to new thresholds of happiness! [...] but I must remember to take better care of myself and learn on a daily basis to say “no” and think of my family, my life and what I still want to conquer and can conquer in order to be someone both as a person and a professional – helping new human beings, children, families, friends, and other beings I am still to meet or run into in my life! I believe this to be my mission... because I shall be a musical *articulator* who, metaphorically, besides showing this is an actual desire of mine, to learn how to play a musical instrument, I must become a more political being, *articulating* new work projects with new life projects!

In another pedagogical intervention, held on Sept. 5, 2009, with the participation of volunteers from the NGO Comunidade Casa do Caminho, through the Projeto de Ensino e Extensão Formação Continuada de Agentes de Saúde Mental Comunitária (Project of Continuing Higher Education and Extension Courses for Agents in Public Mental Health),¹³ a dramatic improvisation was carried out.

When it entails dramatic improvisation (BOAL, 2014), the device requires some sort of stage where people will not interpret characters as in the traditional concept of the theatrical arts, but will present themselves merely guided by the flows of the here-and-now. On this “stage,” the bodies of those who animate the group process are taken to be forces of composition for the interventions, contributing to the environmental education in progress. This happens while a game is set up of correspondence between performers and spectators, between actions of intervention and daily life. This process in this study

13 - In this project, educational activities were offered monthly, including theater workshops, seminars, dramatic improvisations, lectures, and plain chatting.

is viewed as a self-education process – however, this will be both feasible and significant only in the relation of one body with another body and the environment.

For the dramatization, the facilitator asked that someone volunteered to report some personal question to be worked by the group at that moment. A middle-aged woman, unable to get over the sudden, early death of her husband, said his passing was too much for her to grasp, but she believed the group could help her accept her loss. On listening to the widow's report, one of the authors of this paper played the role of the husband and improvised. He wrote in his field diary:

It was a powerful moment of catharsis. When the coordinator asked that someone played the role of the husband, I immediately volunteered, without hesitation, and walked towards the woman standing in the center of our circle [the group was standing in a circle at the NGO's frontyard]. I tried to concentrate on clearing my mind, getting into a meditative state. I had no idea what was going to happen – we had no script, we had not rehearsed that, there was no previous arrangement of any kind. The aim of the intervention was improvising, which meant working on the razor's edge, walking the tenuous limit between delirium and lucidity. I knew I had to be open-minded, had to have all my senses ready and sharp, had to concentrate in what was going on, and had to let my intuition guide my each and every word, every movement, every cell within my body. This requires total surrender. Throughout my dialogue with that woman there was no time for me to come up with complete, grammatically correct sentences – I would come up with answers for the time of that intervention, and they were flowing calmly, firmly, coherently. I didn't know what to say, I just opened my mouth and spoke. During that improvisation, I felt like taking off my shoes to have my feet on the grass lawn, but I refrained from doing that. I could feel this energy flowing powerfully from the earth through my body. I was merely channeling that energy into a whirl of words and phrases, nothing else. I felt a combination of dizziness and excitement, and there was no thinking about what I could or could not say. My senses were sharp and my whole body was in a state of readiness. (From the field diary of one of the authors of this paper. Sept. 2009)

A few months later, the coordinator of Casa do Caminho, Marcolina Tacca, known to all as Sister Assunta, said her niece, the above-mentioned widow, had overcome the trauma of her husband's death. Our intervention had been central in that overcoming, meaning we had contributed to the restoration of her inner balance, to her finding again her vital force.

In this sense, the intervener, who played the role of the widow's husband, wrote:

After the intervention, three people, at different moments, wanted to talk to me. The first one, astonished by what had happened, asked me if I had gone into a psychic trance. The second person, baffled, said s/he had seen several gradations of light and colors illuminating us as we were moving about in the frontyard. And the third person made some comments on the importance of the theatrical arts in healing actions, and said s/he had quite enjoyed my performance. Three very different perspectives about the same event. Who was right? All three or none of them? (From the field diary of one of the authors of this paper. Sept. 2009).

Unlike methodologies that focus on the examination of variables kept under control, the practices we adopted favor the uncontrolled and are open to a multiplication of variables and to a proliferation of perspectives. Unlike traditional methods, ours welcome variables that may seem strange. It is our expectation that they will interfere in the process, generating waves of destabilization, thus fostering the creation of other ways of living with one another, new ways of dealing with the same old problems of the human. It is a way of expressing ourselves with less self-censorship, and it is a way of having faith: (i) in complex collaborative processes for life's self-regulation, and (ii) in the capacity of human improvisation.

However, the process of creating the group device demands special attention and caution, for what we actually do is examine a specific form of control, while people let go of their bodies only to rediscover them: an ego-centered control. In the epistemological field where pedagogical interventions are located, there is no cradling the I, for the events happen in a decentralized, multi-focused, transverse manner.

The project for a study of micro-interventions to be carried out by the postgraduate students in Environmental Education originated from our pondering on the unattainable macro-complexity of the environmental problematic, as well as from the need to produce – through *clinamens* (microscopic deviations in the orbits of the electrons in pre-Socratic physics) – changes in the daily life of each student: molecular revolutions (GUATTARI, 1981) that relate with both the ecosophy and the research projects they had designed for their dissertations and theses. Some of these interventions are recorded in our environmental videos.¹⁴

The creation of a micro-social group device was guided by another epistemology altogether, taken from another perspective, in which “different forms of rationality and the possibility that other sources of knowledge, not rational but emotional, intuitive, sensitive, imaginative and muscular,” (GAUTHIER, 2009, p. 5) come into play in the process of producing knowledge. The creation of that micro-social group device originated from a process of re-singularization of relations (of the person with herself, with others, and with the environment), and is based on complexity – from the viewpoint of the ethic-aesthetical paradigms of both Deleuze and Guattari. From that point of view, various rhizomatic connections are established with each and every moment in a steady flow of deterritorialization and re-territorialization.

Complexity explains the historical-cultural phenomena intrinsic to the biological and points out to solutions that depend on the internalization of certain concepts. In this sense, Environmental Education can be the axis of interlocution between the ethical concepts in the subject – both man and animal, instinctive and civilized, rational and emotive, *sapiens* and *demens*, and more importantly, able to understand and increase its own intelligence [...] The concepts that surround the dualities of *homo* refer mainly to her abilities to embrace the human condition in civilization, as well as the primitive condition of the human animal, an inevitable part of nature. They refer also to the paradox of society or culture *vs.* nature – but now deleting the idea of *versus*, that is, placing the communion between the conditions that constitute the paradox above both conditions,

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and no longer seeing one or the other as presumably superior. And this is so because in fact *homo* never existed without the complexity of our subjectivity (the individual), our environment (the society), and our nature (the species). In our view, complexity is an epistemology that provides an understanding of the human, our internal nature and our external nature, i.e., because it takes into account all the biological and social aspects and categories that surround us: from physiology to pre-history, history, and tradition (SANCHEZ, CALLONI, 2013, pp. 7-8).

Now, this is the main challenge of our pedagogical interventions: to re-invent when re-inventing ourselves, rupturing dualities, helping each other, accessing becomings, believing in intuitions, valuing the Other in their differences, revealing yourself as you see yourself, expressing your feelings, increasing self-knowledge, re-creating masks and social roles, acting and thinking with your whole body in movement, putting yourself in unusual situations (regarding what is considered “usual” by our ruling institutions), experiencing states of unbalance, dealing with unexpected events . In other words, taking risks that will go beyond our comfort zone as this has been devised by the need to have institutions perpetuate themselves, dictating social roles and identities – so characteristic of the *submitted-object group* (GUATTARI, 2005) that turns the individual into one among many, – replicating values dear to consumers, ingrained in a logic of high productivity.

A rigid understanding of reality and the ways of dealing with reality proved to be quite individualistic, reinforcing under many circumstances the primacy of the I and the repetition of the same, the hegemonic, the expected. Along the intervention process, moments of cooperation and mutual solidarity allowed varying degrees of differentiation and singularization emerge within the group. Pedagogical interventions therefore point to the presence of a potentiality that can be liberated when the human veers away from stereotypes and re-invents social roles.

It so happened that we needed another instituent line in the device, another supplementary technique. And it took the form of a clown, especially in the artistic-pedagogical activities. It was a kind of improvising clown: clumsy, reckless, motivated by her interacting with the world and other people, one who was free to exhibit her own ridicule and occasional failures by transforming them into comic material, making laughable the truth, bringing to light aspects of the human that as a rule are socially denied. Features of the clown include violating rules, subverting social roles and masks, defying the established order, and disrupting social representations.

In the process of giving life to this clown within the context of our extension project Interactive Theater Group – socioenvironmental intervention and research laboratory (Grupo de Teatro Interativo: laboratório de pesquisa e intervenção socioambiental), between Aug. 2015 and Nov. 2016, a significant step was taken towards perfecting the group ties and the group development. The clown revealed its value in the courage, improvisation, and eager participation from the members of the group. Our clown was there in the way it related with the environment, in the way it accepted its own ridicule, in the (self-) awareness that it could be form and content to its own clown, in the experimentation with strange languages and with the immanent body language, in our using our bodies to express ourselves more spontaneously, in the involvement, improvisation, motivation and

creativity in manufacturing costumes and makeup, and last but not least in the inventive, reflective, sensible, imaginative participation of the group as critics.

Notwithstanding, it has been a troublesome process: on the one hand, the group did improve in their results of activities carried out in the laboratory and learning the clowning technique (BESNARD, 2006, 2014), but on the other hand their progress was quite limited regarding the socio-environmental interventions. This could perhaps be explained by the necessary exchange with an environment outside the laboratory, something which requires revealing yourself, interacting with the public, and facing complex social and environmental questions. This is the more demanding part of the process, a moment of distress, when we break away from the limits of the protected environment of the laboratory/classroom and head towards the more unstable and contradictory environment of daily life – meaning a higher level of intensity regarding those activities previously carried out in the laboratory, meaning your moving away from safer places, deterritorializing yourself, and having to deal with unforeseen events. In other words, it means you are metaphorically naked to the eyes of the others, and you reveal how ridiculous you can be to other people and to the world when you present yourself in a different way, playing another social role, using another mask, in a performance of other representations. To sum up, these implications, this actual acting must be well memorized in your body in order to echo social and environmental problems.

All the while, the group had been perceiving this type of acting as threatening, the source of fear and inhibitions. This meant we researchers had a challenge facing us, bearing in mind that we are the ones who suggest pedagogical practices and articulate theories in order to cope with socio-environmental problems. The group was afraid of all sorts of things: depersonalization, the encounter of their bodies in movement with those of other people, finding themselves in a chaotic situation, finding themselves in unexpected situations, feeling unable of classifying or controlling, unable of running risks and improvising, unable of taking a stand and suggesting alternatives, unable of getting involved in the process, and they were also afraid of transforming reality through transforming themselves (which leads us back to the first item above: depersonalization). They had fear of the law, the morals, life and death, the new. Fear and fear! However, the group in their several nuances contradictorily emerged as the *ethos* of actions transgressive of instituted truths, submission rules, and dominant social signifiers. The group, motivated by a desire to overcome their fears, moved away from the *ethos of submission and proved to be something other than an object group*.

On emerging from their moments of crisis, they were a *subject group* (GUATTARI, 2005) operating autonomously and creating their own rules – exactly that which makes the subjective standpoint become the attitude of a subject. Such becomings allowed for their questioning the meaning of the activity and their creating new meanings for their actions, when the logic of this study is partial and procedural rather than totalizing and functional. Such becomings made way to a space for flowing movements and instituent forces, a space where all participants have their own particular manner of living and expressing themselves, are illuminated by their own light, allow for apparent oppositions and paradoxes in their lives, and embrace the Other with her differences.

The experimentation with different modes of coexistence opened micro-fissures on the thick social fabric when it aimed at erasing limits that separate the human from nature, the subject from the object, the inside from the outside, thus revealing new perspectives in terms of caring for oneself, others and the environment. The research-work/intervention presents the participants with new horizons for the educational process in environmental education and points to other ways of producing knowledge.

The group device has been dealing with some of the more important challenges in the field of environmental education, and it examines the *modus operandi* of contemporary society and brings about other modes of coexistence that begin with the creation of a space for dialogue and environmental awareness, aiming at having people lead a life with better quality and happiness, in which cooperative work may resist oppressions and alienations, and build a world inspired by dreams and utopias, where we can deal with the fear of pain, where we can desire freedom and, above all, where we can learn to fight for life.

Caring-for at university courses in Environmental Education

One of the main features of this research work was to track down and explore certain paradoxes and dispersions: some events that are loaded with transforming potential, i.e., events that will elicit our senses and intuitions causing them to organize our thoughts in a creative flow.

The process of this research work proved to have the potential to examine and dispute social norms and conventions by leading us to think of environmental education as actions that will encourage the creation of group devices with the objective of providing possibilities of exchange between the human and the environment, possibilities that are more receptive to instituent movements and becomings, favoring our perception of nature (us being part of it) rather than trying to place ourselves in nature's "shoes." Paraphrasing geographer Elisée Reclus, we could say the human is nature becoming aware of itself.

Instead of taking nature to be outside of us, we should let our bodies (mind included) feel the flow of becoming-water, feel the breath of becoming-wind, feel well planted in the soil by becoming-tree, feel incandescent by becoming-lightning.

The notion of caring-for devised by our research work assumes the creation of group devices at university courses in Environmental Education – group devices to allow the human to access dimensions such as to make us experience other centers of gravity, other modes of coexistence; group devices to allow us extrapolate ego, individualism, individualistic perspectives; group devices that will allow us to create and experience in our bodies the existential diversities.

The relation between what happens in and out of the research laboratory, the relation between formal, non-formal and informal universes of teaching, the relation between one instituted space and another – these are relations pointing to the existence of inventive potentialities in the in-between, in the *intermezzo*, in the between-places. Those are places of coming through, where one can only go by; they are places that cease to exist as soon as flow variations, discontinuities and reconnections die out. These places can only be

experienced when the human in dislocation moves beyond the territories where we are in control, letting go of our safe places and plunging into creation, into the invention of the new. The in-between place is impregnated with creative forces. The device makes visible some of the invisibilities of the instituted and in so doing, produces the research data in a process of collective self-analysis.

The studies developed around the pedagogical interventions¹⁵ are deemed to be alternatives to develop intuitive, sensitive, creative capacities, while the human threads the limits between conscience and the unconscious. The interventions show this is possible when the senses are sharpened and the body goes through changes, generating waves of instability and intensifications, when the body disorganizes a certain order previously established and denounces the incompatibility of our current society with the potentialities and multiple possibilities of the human body.

The environmental-education concepts concerning raising awareness are relevant for the whole learning process. However, from awareness to action, a journey must be taken, one that involves the mobilization of intricate processes (of the body) that will translate into action. The educational processes in environmental education are, in this sense, the actualization of what goes on in the world as we experience it – as events are processed, where theory influences practice and *vice versa*, according to a script that involves what is meant, what is said, what is pondered, what is dreamed, what is seen, what is ineffable, where the verb “think” is always in the gerund (“thinking”), in a movement that is forever deconstructing and inventively creating.

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15 - Some of them were included in the dissertations and theses of the participating postgraduate students, and may be seen in the different ecosophic micro-interventions available on the Lapea website – <http://www.lapea.furg.br/>.

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