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Case Study

Reflections for re-in-root: Case sudies

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Abstract

Simone Weil's work proves to be inspiring in inducing reflection on the sources of an ecological orientation. Her work, deployed during the years 1930-1940, initiated in a work entitled Oppression et liberté (1934), then in the embodied study of La condition ouvrière (1936), finds its culmination in L'enracinement : Préludes à une déclaration des devoirs envers l'être humain (1949). In this work, Simone Weil, through her participation in the French resistance movement in London, seeks to understand the means of curbing uprooting in the post-war period. She reveals the vital needs of the soul, then explores the mysteries of uprooting, and finally, sets out a method for putting down roots. We propose to continue its reflection starting from the idea of a re-rooting of man in his ecosystem, in order to think of a development from then on rooted in ecological necessities.

Introduction: An uprooted civilization

Faced with the questions that beset us in the current crises, it seems interesting to resort to part of the work of Simone Weil, who writes about an uprooted civilization. Her work is a call to rise up against injustice and oppression, and as such appears as a source of questioning in terms of authenticity. Simone Weil [1909-1943], a philosopher, professor of philosophy, a factory worker to experience the conditions of the factory, and a farm worker at the end of her life, offers a fruitful thought, some elements of which we present from three of her works, focusing on her notion of rootedness, which can be used by our civilization, which in many respects can be described as uprooted, to reflect on ways to re-root.

Rootedness

Weil [1] denounces systems of oppression, especially in the working-class labor. In her work The Working Condition (1936), she takes a stand for workers, after having experienced life in her body, bruised by the pace of the production line. She castigates Taylorism, which is established as a rationality that claims to be scientific, but which imposes oppression on workers [2]. Its idea is to maintain that if work opposes man to the necessities of the world, by a founding opposition, on the other hand, he does not have to suffer the oppression of others, as is the case during war, or also in factory work, where temporality is imposed both by the pace of the production chain, but also by the service of methods dictating the duration and modalities of each work operation.

One of these aspects is outlined by Weil in his book The Roots: Preludes to a Declaration of Duties to Man [3], composed at the end of the war. Simone Weil, who was given the mission "to help France regain a genuine aspiration" (1936, p. 251), seeks to understand the means of curbing the uprooting of human beings in the post-war period. In summary, after having, in the first part, revealed the vital needs of the soul (relating to order, freedom, obedience, etc.), it explores in the second part, the mysteries of uprooting, by examining the uprooting of the peasant and then the worker, comparing their work temporalities: "the peasant's work obeys by necessity this rhythm of the world; the worker's work, by its very nature, is to a large extent independent of it, but it could imitate it. It is the opposite that happens in factories. Uniformity and variety are also mixed in them, but this mixture is the opposite of that provided by the sun and the stars; the sun and the stars fill the time in advance with frames made up of a limited and ordered variety in regular returns, frames designed to house an infinite variety of absolutely unpredictable and partially unordered events; on the contrary, the future of the one who works in a factory is empty because of the impossibility of predicting, and deader than the past because of the identity of the moments that follow one another like the ticking of a

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clock. A uniformity that imitates the movements of clocks and not those of constellations, a variety that excludes all rules and consequently all forecasting, makes time uninhabitable to man, unbreathable" [1].

To fight against this uprooting, Simone Weil proposes a civilization based on agricultural work, so that man is in tune with the needs of the world, rooted in cosmic and ecological forces, as she expresses it in the following words: "for the peasants, everything should have as its centre the marvelous circuit by which the solar energy, descended into the plants, fixed by chlorophyll, concentrated in the seeds and fruits, enters the man who eats or drinks, passes through his muscles and is spent for the development of the earth. Everything related to science can be arranged around this circuit, because the notion of energy is at the centre of everything. The thought of this circuit, if it penetrated the minds of the peasants, would envelop the work of poetry. Generally speaking, the essential purpose of any instruction in the villages should be to increase sensitivity to the beauty of the world, to the beauty of nature" [2]. But in terms of poetry evoking solar energy, his writing also culminates in this other excerpt. "We do not live on anything but solar energy; we eat it, and it is it that keeps us upright, that moves our muscles, that bodily operates in us all our actions. It is perhaps, in various forms, the only thing in the universe that constitutes a force antagonistic to gravity; it is the energy that climbs trees, that lifts burdens with our arms, that moves our motors. It comes from a source that is inaccessible and that we cannot get even one step closer to. It continually descends upon us. But even though it constantly bathes us, we cannot catch it. Only the vegetal principle of chlorophyll can capture it for us and make it our food. It is only necessary that the earth be suitably arranged by our efforts; then, through chlorophyll, the solar energy becomes a solid thing and enters into us as bread, as wine, as oil, as fruit. All the peasant's work consists in caring for and serving this vegetable virtue which is a perfect image of Christ" [1].

Uprooting

However, with intensive agriculture, the negative aspects of worker labour denounced by Weil were able to catch up with peasant labour [4]. Hasn't today's agriculture lost its way in the throes of the exacerbated productivism of the agri-food industries? Moreover, Weil foresaw the increase in this uprooting process. "The problem of peasant uprooting is no less serious than that of worker uprooting. Although it is less advanced, it is even more scandalous, for it is unnatural for the land to be cultivated by uprooted people" [2]. It states factors of peasant uprooting; for example, the fact that "as far as the things of the spirit are concerned, peasants have been brutally uprooted by the modern world" [2], or again: "yet another kind of uprooting must be studied for a summary knowledge of our main disease. It is uprooting that could be called geographical, that is, in relation to communities that correspond to territories" [2].

Our hypothesis in the rest of the Weilian reflection is therefore that human oppression applies not only to other oppressed men but now also to "nature", so much so that we can use Voltaire's word in Candide to say that the globe can be seen today as a "globule". From a deep-rooted relationship to the living world, or even to the earth as an organism [5], man has extracted himself to make our earth once again a "closed world", closed in a cold and inhospitable space, and his life also a restricted space, short-sighted, with no distant horizons, whose gaze is therefore closed by a box of screens. Man conceives them as "windows on the world", but they are only "animated shutters" sending back to him his own vanities and desires of excess, cut off from "nature", to the point that the anthropocene comes to banish the possibility of a life for the next generations. Man, unable to continue his conquest of space, becomes the "colonizer" of time.

From this perspective, science, which was part of the idea of progress stemming from the Enlightenment, has it not become the last avatar of post-modern societies, about which Beck [6] enlightens us. In this respect, the preface written by Bruno Latour states: "unlike all cultures and all previous phases of evolution, society today is confronted with itself. There is no longer anything external to the social world. Nature, in turn, which has long since become second nature, is integrated into political and social debates. There are no longer any reservations about rejecting the "collateral damage" of our actions. Corporations have become risk factories" [6] also refers to the new threat this creates by mentioning "the strange mixture between nature and society, in which danger overrides anything that might resist it. It is first of all the hybrid figure of the "radioactive cloud", that instance of civilization transformed into a natural power in which history and meteorology are based in a unity that is as paradoxical as it is powerful. This experience, which for a moment shattered what had made our lives until then, reflects the impotence of the world industrial system in the face of industrially integrated and contaminated "nature". The opposition between nature and society is a nineteenth-century construct that served a dual purpose: it allowed nature to be dominated and ignored. At the end of the twentieth century, nature is being subjected and exploited, and it has been transformed from an external phenomenon into an internal phenomenon, from the given into the constructed. Dependence on consumption and the market is, once again, in a new form, dependence on "nature", and its immanent dependence on the market system in relation to nature becomes, in and with the market system, one of the laws of existence within industrial civilization". Beck (2001: 22) [6] adds the following reasoning: "because contamination and global chains of consumer products are global, the threats of life in industrial civilization are subject to the social metamorphosis of danger: the rules of daily life are turned upside down. Markets are collapsing. It is scarcity at the heart of overabundance". What the recent pandemic regime has reminded us of!

Simone Weil's other challenging work is Oppression and Freedom (1934/1955). It argues the notion of development in order to question that of progress, in view of limited resources. "But, if the current state of the art is not enough to liberate workers, can we at least reasonably hope that it is destined for unlimited development, which would imply an unlimited

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increase in the output of work? This is what everyone admits, among capitalists and socialists alike, and without the slightest prior study of the question; it is enough that the return on human effort has increased in an unprecedented manner over the last three centuries for this increase to be expected to continue at the same rate. (...). For this purpose, it is important to know first of all what technical progress consists of, what factors are involved in it, and to examine each factor separately; for under the name of technical progress are confused entirely different processes which offer different possibilities of development. The first process that man can use to produce more with less effort is the use of natural sources of energy; and it is true in a sense that no precise limit can be placed on the benefits of this process, because we do not know what new energies we will one day be able to use; but this does not mean that there can be indefinite prospects of progress in this direction, nor that progress is generally assured. For nature does not give us this energy, in whatever form it may be, be it animal power, coal or oil; it must be taken from it and transformed by our work to adapt it to our own ends. But this work does not necessarily become less and less as time goes by; at present, it is even the opposite which is happening to us, since the extraction of coal and oil is becoming constantly and automatically less fruitful and more expensive. What is more, the currently known deposits are destined to be exhausted after a relatively short time. New deposits may be found; but (...) in any case the quantity will not be unlimited. New sources of energy can also, and probably one day will have to be found, but there is no guarantee that their use will be less labour-intensive than the use of coal or heavy oils; the opposite is also possible" [1]. She goes on to point out that "to hope that the development of science will lead ... to the discovery of a source of energy that can be used almost immediately for all human needs is to dream" [1].

In his remarks, some Beckian accents are found, showing the inverse character of "progress". "The expansion of trade, which once played a formidable role as a factor of economic progress, is also beginning to cost more than it avoids, because goods remain unproductive for a long time, because the number of people involved in trade is also increasing at an accelerated rate, and because transport consumes ever more energy due to innovations designed to increase speed, innovations that are necessarily more and more costly and less and less efficient as they follow one another. Thus, in all these respects, progress is today, in a strictly mathematical way, turning into regression" [1]. Weil questions: "we have no way of clearly realizing, however, whether we are near or far from the limit at which technical progress must be transformed into a factor of economic regression" [1].

Here is the analysis Weil reaches in his search for the "abolition of social oppression" [1]: "human action continues, on the whole, to be nothing more than pure obedience to the brutal sting of immediate necessity; only, instead of being harassed by nature, man is now harassed by man" [1].); to conclude that "inequality could easily be softened by the resistance of the weak and the spirit of justice of the strong; it would not give rise to a need even more brutal than that of natural needs themselves, if another factor did not intervene, namely, the struggle for power" [1].

Re-rooting

How can we get out of this struggle for power and excess, to return to a relationship rooted in cosmic and ecological forces and temporalities? Isn't it a question of man trying to blend in with their necessities, rather than trying to free himself from them? But how and under what conditions? Numerous works show that "the nature of human nature", according to Rifkin [7], is not constitutive of domination or destructive tendencies, but of a movement of universal empathy, however thwarted by a progressive rise in entropy, which, according to Weil, reminds us of the order of necessities. Unless it is a question of re-questioning the "nature of nature" itself? This is what Chapelle & Servigne (2017) [8] proposes, following the work of Propotkine (1906/2001) by dethroning the notion of competition, to establish another "law of the jungle" based on mutual aid. To go further in this direction, should we join the movement of convivialism? This movement, spurred on by the work of Ivan Illich [9], "directly confronts the crucial question of our time, which is that of the means to fight against excess, the hubris: how can humanity learn to limit itself" [10] This is in line with the analyses we have reached with Weil, who also denounces excess.

The other question posed in more ecological terms is how to move from an anthropocene to a symbiocene, as Glenn Albrecht [11] calls for. How can we imagine human work and agriculture based on sustainable development, whose purpose would not be oriented towards the immoderation of an ever more, faster, in a time then exacerbated by acceleration (Rosa, 2014), but towards rootedness?

Permaculture, drawing inspiration from natural ecosystems, based on «favourable interactions between the components of the sites whose development it designs: humans and their needs, the territory and its characteristics, annual and perennial plants (...), animals, soils, microclimates, water, etc.» [12], and by promoting timely interactions between different plants, components of ecological environments [13], can it be a possible example?

In this respect, the questioning carried out on the basis of an analysis of the activity of permacultivators, in order to understand their resource system, makes it necessary to rethink it beyond an industrial framework and helps to broaden this point of view, by going beyond the functional dimensions for the subject's value systems that guide the mobilisation of resources, including on a more ecological side [14].

We propose to compare a evolution of the approach of system of instruments of operators.

Case study 1

In a first work [15], we made the analysis of the system of instruments in the industrie of preventionists.

But, what is a system of instruments.

Characteristics of the systems of instruments

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Bourmaud has highlighted the main characteristics of systems of instruments in examining previous research, using the following concept [16-21]: the different components are heterogeneous, the functions are complementary and redundant, a specific instrument is the "pivot" of the system, and these systems are robust and adaptable [22-25].

The heterogeneousness of instruments of the system:

Formal and institutional instruments, for example safety rules, coexist with unofficial ones, for example the non-formal use of a safety rule. The resources participating in the systematic organization of instruments are heterogeneous in nature.

The pivot instrument of the system

Among all instruments composing the system, one is quite exceptional: the pivot instrument. Different indicators can be used to identify it.

The complementarity and redundancy of functions of the system

Systems of instruments present the double characteristic of complementarity and redundancy of functions. For example, two different instruments may have different and complementary functions for managing risks, and the two instruments may reach the same safety functions. In this case, only one of them is systematically chosen, according to the situation's characteristics and to availability and accessibility.

The robustness and the adaptability of the systems of instruments

Finally, the double characteristic of complementarity and redundancy of the instrument's functions contributes simultaneously to the robustness of the system, its flexibility and its adaptability to face the variability and diversity of situations.

We have develop the idea that the Method of Failure and Substitution of Resource (MFSR) is useful in the analysis of reliability and adaptability in work systems. It stresses that the double characteristic of function complementarity and redundancy contributes simultaneously to the robustness of the system and to its flexibility and adaptability when facing situations of variability and diversity.

Methodology of the case study

Collected data: A study of the "redefined task

The aim of this case study is to consider any characteristics of the systems of instruments. We have adopted a qualitative case study approach [26]. The data examined here was obtained during a series of three interviews with nine preventionists, each working in an industrial environment. The subjects were considered to be experts, since they could have also been either trainers or tutors for learners in vocational training centers. We also carried out daily work observations and participated in safety clubs.

In order to identify the systems of instruments developed by preventionists, we must try to understand their «redefined task» [27]. The task defined from the point of view of the subject comprised the operator's representations of his or her work, the way it is realized, his or her personal values, etc. The redefined task differs from the prescribed task in that the task is defined from an organizational point of view, including the task defined by the individual who realizes it and the task that is actually accomplished. Our process of data collection on the basis of interviews was organized in three phases: the subjects' definition of the work situations, the validation of these definitions and the confrontation with their various points of view. In the first interview phase, the subjects were asked to explain what they consider to be a difficult situation in their daily work. The transcribed interviews were divided into themes and sub-themes and validated during a second interview. The themes pertained to the theoretical contents of safety; the sub-themes were related to episodes corresponding to real work experience. At this moment, we provided the subject with an initial proposed categorization. The aim of this second phase was to specify or further explicate the different points of their discourse. In the third phase, we organized a confrontation with other operators: other preventionists were asked to comment on an anonymous, transcribed interview. The transcription therefore became a document used for interviewing a group of operators.

The data mobilized in this chapter concerns the first two phases of our interview process with an operator who is also trainer in a vocational training centre in the industrial field. In the same vein as the work of Creswell [27], we chose to present this in-depth portrait because this particular professional explicitly develops his activity during a long, three-hour interview, completed with another, lasting one hour. We will focus here on the theme concerning the tools used.

The subject's characteristics

After obtaining a high school diploma and achieving a two-year university degree in science, followed by a two-year technical degree in chemistry, this operator (we will call him Subject A) became an engineer at the Ecole Polytechnique at the University of Grenoble. He specialized in the field of hygiene, safety and the environment. During his career, he handled fire management and the implementation of a safety management system in a company manufacturing industrial ink-jet printers. In another job, he dealt with machine conformity as a preventionist. His studies in ergonomics supplied him with a constant concern for the human being at work, which moreover, is highly visible in his comments.

Data analysis: Components of the system of instruments and functional analysis

The data analysis here consists of two general phases: after having determined the components of the operator's instrument system, we carried out a functional analysis. To highlight the components, we illustrated their specificities with extracts from the interviews with the professional. For system l, we considered all artifacts mobilized by the professional and, for each one, we determined the functions and goals fulfilled.

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Interviewer: What did you, when you arrived at your company or during your initial training courses, what did you use every day as tools? If you had books, if you had?

Subject A: Ah okay, yes there is the Labor code, it is the most important tool.

Interviewer: Because I don't put the documents ...

Subject A: The Labor Code, the basic tool, more than the Labor Code, for me what I use is the Permanent Dictionary of Safety and Working Conditions, because in fact, it's the interpreted Labor Code. It is not simply the texts of laws, it is a little, it goes a little further, you don't have that in the Labor Code, and you have a certain number of orders, decrees, and European directives. So that allows you to simply have more information. That it is the work tool, yes, it is the basic work tool, it's true, I hadn't thought about that.

Afterwards, we attempted to collect other characteristics of the artifact. For example:

Subject A: (...). I shall say, that's right in fact, there is theoretical knowledge; it is the Labor code that is the theoretical knowledge. After that, there is also technical knowledge, for example to know how to use certain... if among the tools there is in particular a "causal tree", to go back a little, to know, when we had the accident, to be capable of starting a verification of the accident, to set up actions, it will be passive actions or corrective prevention, as you want. We had the accident, we tried to set up actions to avoid it happening again. That's a tool, it's sure that there is certain number of tools. You can't arrive in a company and improvise like that because you have to know how to use them.

However, to go further, it would be necessary to pursue this analysis. The MFSR [24] seems to be a good means to develop the operators' contributions to the resilience of sociotechnical systems. The use of MSFR could allow us to more systematically identify the functions and the reliability of the operators' system of instruments for a class of work situations. Then, by allowing the analysis of the fragility and the robustness of the operators' systems of instruments, MFSR could be considered a relevant tool to investigate the operators' contribution to the reliability of a work system. More generally, it would be useful to foster resilience in at-risk industrial systems. MFSR presents similarities with certain reliability methods, such as the *FME*, in terms of structure and implementation in particular [23,24]. The resulting analysis would then not only be technical, as with FMEA, but focused on "anthropological" dimensions.

Case study 2

Resource systems of permacuter farmer and analysis method

We use Rabardel's [28] instrumental approach, and mainly take into account the subjects' resource systems [23]. This system of resources is analyzed in particular in the light of the MFSR.

Methodology

We have initiated a triangulation of methods, aimed at understanding permaculture practices. This triangulation of methods consisted in taking into account :

1. an extrinsic point of view to the subject, the permaculturist: i.e. video testimonies of permaculturists and documentaries, books on the practice of permaculture, observations of spaces, photos and diagrams of permaculture spaces, etc.

2. an intrinsic point of view: i.e. several interviews with permacultivators, sequences of observations of permacultivator activity and provoked verbalizations, and the involvement of an MFSR [16,23,24] with one of them. In concrete terms, this method consists of establishing data grids, through observations and interviews, concerning the modalities of execution of the activity during the failure of a resource, and the value attributed by the subject to the identified substitute resource.

Resource system

We had specifically allowed us to specify several characteristics of resource systems [23,24], some of which we retain below:

1) The heterogeneity of the resources participating in the system: institutional artefacts coexist with informal artefacts, and various internal and external resources (personal memory, collective memory, time, etc.) ;

2) The emergence of the complementarity and redundancy of the system's functions: some functions are thus ensured by several resources simultaneously (redundancy) and/or may be the result of the association of several resources (complementarity);

3) The robustness and adaptability of the system: the dual characteristics of complementarity and redundancy of functions simultaneously contribute to the robustness of the system and the flexibility and adaptability of its mobilization in relation to the variety and variability of situations, as attested by work on risk management in the field of power system maintenance [20]

4) The pivotal resource of the system: among all the resources that make up the system, one stands out in particular as an organizer of the others, such as the regulations for company safety functions [2,15];

5) System nesting: systems can be elements of larger systems;

6) The system pivot subsystem: made up of several resources, it goes beyond the concept of a single pivot and reinforces the notion of subsystem;

7) Systems of subject-specific criteria and values govern the mobilization of the different resources of the system.

Systemic approach to the activity of permacultivators

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Based on an initial analysis of the activity of two permacultivators, we will discuss their permaculture practice from a systemic perspective (Bourmaud, 2018).

A systemic practice

The cultivation area of one of the permacultivators met is configured in beds, in which he grows vegetables, delimited by alleys, themselves covered with organic matter. The ten or so beds present various associations of plants, which constitute varied "cultural sequences": for example, a first bed (about 5 m * 0.9 m) contains:

- 4 feet of rowing beans forming the corners of a square of less than 1m2 which rise up clinging to chestnut canes attached to their heads ;
- Tomatoes in facades facing south;
- Root celery on the shaded sides and a cauliflower in the middle.

The permacultivator says: "It may produce smaller vegetables than if they were grown separately, but the whole should be an interesting quantity and justify the saving of space".

Also, another board proposes :

- 1 Row of peppers on the north façade;
- 1 Row of peas on the south side, which gradually cling to branches of dead wood planted in the ground;
- Green and purple basil between the 2 rows;
- Lettuce between the peppers;
- and at each end of this plank of earth pear (perennial plant) and nasturtium (which serves as a "pest bank" to ensure the return of ladybugs, effective predators of the aphid throughout the growing area).

Some main results

The analysis of the cultivation beds made up by the permacultivators thus covers :

1. the principles of permaculture :

o with mixed and diverse crops, concentrated in the soil on the one hand and vertical on the other;

o an aggregation of the soil;

o a harvest forecast spread out in time;

o a saving of water for watering by the proximity effect of certain plants;

o etc;

2. systemic principles:

o the double consideration for 1) the primary/intrinsic functions of each plant and 2) for the functions for the system, favourable or not, called emergences or constraints;

o of the beds as systems in themselves and sub-systems of the overall cultivation area ;

o etc. ;

3. and systems of resources and criteria and values specific to a permacultivator :

o principles (knowledge and information) of permaculture as intangible artifacts; material artifacts such as soil-friendly gardening tools like the grelinette and the campagnole; other informal material artifacts such as concrete irons and twigs; and cropping calendars for planning one's activity ;

o an aesthetics and a fine organization of the crops with flowers and beds, and maintained alleys;

o finally, criteria and values, such as the limitation of the workload generated by each and every cultivation sequence/s, a thoughtful consumption of water, the sale of vegetables to a network particularly attentive to a reasoned agricultural production, etc.

The comparison between the two case studies allows us to understand how a systemic analysis method can evolve by taking into account the activity system of permaculators.

Conclusion: The productive by the measure of the constructive

In search of a spirituality through work, can Simone Weil's work, "Antigone des temps modernes" [29], of which we have outlined some features through three of her works, prove to be inspiring in inducing a prompt reflection to inflect a new agricultural orientation in search of more authentic values? The so-called progress that has become a globalized threat cannot fail to be questioned. This calls for a new approach to respond to the notion of "sustainable development". There is an urgent need for education for sustainable development, as evidenced by symposiums on this subject, such as the one entitled "Education for sustainable development and biodiversity: concepts, live questions, tools and practices" [30].

In this regard, Fleury and Fabre [31] examine paradigm shifts from a historical and problematic [32] perspective of the notion of sustainable development. "With the acceleration of the globalization process, with the problems associated with global warming, we have taken the measure of global interdependence. It follows from this the need to seek relevant paradigms for thinking about the complexity of our world. We have thus moved from a mechanistic paradigm (clock model) to a thermodynamic paradigm (steam engine model) and then to the paradigm of "creative destruction" (chaos theory: singularity of microevents, critical points, risks and uncertainties)" [31]. In order to move beyond an informative perspective, of knowledge dissemination according to an applicationist logic, where actors must "implement, validate or improve a predefined model", or follow "methodological

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guides to "good practices" and move "from a pedagogy of inculcation to a pedagogy of judgement formation", the authors problematize a crucial question: "can we train in sustainable development as we trained in the productivist model? " [31].

We propose an analysis in terms of professional didactics [33], which focuses on the development and emancipation [34] of workers from the analysis of their conceptualizations (Vergnaud, 2007), aiming at constructive ergonomics [35], to propose to inflect the productive under the seal of the constructive. The dialectic between constructive activity and productive activity [33] examines how the subject, starting from his constructive activity, becomes a capable subject, and manages to increase his power to act [16], since "through work, man transforms reality, but he also transforms himself" [33]. According to Rabardel [16], "productive activities are thus inscribed in the temporal horizons (from the very short to the medium term) of this or that action or set of actions, corresponding to a mission (given, prescribed or expected of the worker) or a project of the subject; whereas constructive activities are inscribed in the temporal horizons characteristic of the development of the subject and his resources (medium and long term)". Even if, according to Pastré [33-40]: "there is no productive without constructive activity, and vice versa", should we not also ask the question whether there is not sometimes destructive activity in the productive, which in the long term can obstruct life on Earth?

Our idea is to deploy this individual idea in order to take it back to the level of a civilization, which would then put the productive behind the constructive by thinking of its activity in the long term, in particular to preserve the living and the planetary biotope. To go further, should we not be able to propose a "rooted pedagogy", which therefore remains to be invented? Weil announces that: "the unfortunate populations of the European continent need greatness even more than bread, and there are only two kinds of greatness, the authentic greatness, which is of a spiritual order, and the old lie of conquering the world. Conquest is the ersatz of greatness. The contemporary form of authentic greatness is a civilization constituted by the spirituality of work" (1949, p. 70), inasmuch as it "would be the highest degree of man's rooting in the universe, as a result of the opposite of the state we are in, which consists in an almost total uprooting" (1949, p. 128). Is it to be hoped that an ecological spirituality will come into being in our post-modern societies!.

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