Steps towards autonomy: autonomy of your thinking, autonomy from the money and autonomy from the system. The multicriterial choice of time: creative leisure time.

Claudio Cattaneo

Universitat Autònoma de Barcelona claudio.cattaneo@mail.liuc.it

1 Introduction¹

This paper is one result of a "fieldwork" during a so-far 3 years long experience living in neorural communities in Barcelona, as part of the squat movement, and in the catalan Pyrenees.

The only scientific evidence is that neorural people can live with an average of around 200 euros per month in Collserola, the natural park of Barcelona. The paper develops from a question: how is a neorural oikonomy² originally conceived (discourse) and then materialized -by looking at a real indicator like Time, which is also easily comparable in money-time?

A neorural can be defined as a person interested, for different reasons that will not be dealt with in this paper, in living in a rural environment although she was not born in the countryside. Normally it is people who moved from a city environment to a more natural one. To the extent of this paper a community is a fuzzy term that identifies a group of persons living together, with more or less defined political goals, organizational structure, norms or rules for living and working together, that can somehow be identified in a project that goes at least a step beyond simple "flat-sharing".

My landing into one of these communities has been almost totally accidental, four months after my arrival in Barcelona to attend the doctoral programme in Ecological Economics. The "fieldwork" experience has not been planned a priori, neither the final objective of the investigation has ever been clear to me, but rather it took form step by step from life reality. So this paper is a merge of two papers I thought of writing that originated from my MSc thesis at the Autonomous University of Barcelona. My MSc thesis emerges to the academic world as the result of a bottom-up process and that is why the term "fieldwork" appears always in brackets: in fact it does not come from this academic point of view.

¹ Since John Proops recommended me to read "The dispossessed" (LeGuin), I think that this paper comes from Anarres.

² I will use the term *oikonomy* to consider an economy existing at a superior level than money. Money is an oikonomic mean like natural resources in the physical reality. Martinez-Alier and Roca (2000) remember how in ancient Greece economics of money were called *crematistics*.

In order to translate it into a scientific paper I considered the issue of autonomy as a point of view that could explain well enough an experience that, after all, is a political and ecological project, for me and for the neorurals that I have met during this time. From another point of view Badall (2001), an erratic neorural, has chosen to describe our reality in terms of self-sufficiency.

Nonetheless the realm of autonomy is wider than only political and ecological. For this paper other types like cultural or social autonomy are not considered as main elements of the relation that I have observed. Neither I think they are relevant in political ecology or in ecological economics.

Max-Neef (1993) talks about the difference between describing, explaining and understanding. While the formers are matter of science, the latter is matter of the essence and meaning of real things. If this work could sound at some times fuzzy it is because I am trying to scientifically reduce my understainding of a type of real life into a theoretical description and explanation of a complex social reality.

The explanation of a complex reality can, at times, be done with the use of metaphors (Giampietro, 2002 and 2004); I will use them to provide an understanding for the fuzzy definition that "system" and "autonomy from the system" can have.

In the Ying Yang simbol "system" could be white (or black) and "autonomy" could be black (or white). The Reality could be the whole and the reality (as perceived subjectively by each living being at a moment in time) could be a mix of black and white.

Other reference to understand what can be considered as the system and or the direction the system is evolving towards are Plato's myth of the cavern, Ursula Leguin's book "The Dispossessed", the film "The Matrix", Daly's explication (1999) of the evolution of the trade system and the fallacy of misplaced concreteness³ (Daly and Cobb, 1989).

First of all imagine Plato's myth of the cavern. The system can be considered as the complex set of rules, norms, customs and culture that makes, by default, people live in the cave; that is, ignoring of the existence of light and colours. In this paper darkness is the metaphor of money if it is conceived as the main economic mean, and with some tendences towards being the only. The system is also the faith in believing what governments and social norms tell us, as true, superior and moral, in a framework where legality and morality are always coincident (and so also illegality and immorality). What I intend for Plato's world of light and colours is the multiple perspective according to the economic means and for the democratic decision making⁴.

Ursula Leguin writes a metaphorical book where life in Anarres, an almost anarchist planet, is compared to life in Urras, the neighbouring planet representation of our real world. Urras can be seen as the system and Anarres its antithesis that, being a planet, is nearly autonomous from the system.

In "The Matrix" knowledge of reality is achieved by introducing a virus in the system (that is the red pill Nemo chooses to eat) that awakes the real Nemo person for the first time in his life and starts to see the light. The system is represented as a computer programme (an artificial and dematerialized virtual

-

³ All these metaphors came, as insights, clear to me only after I started to know and to live in neorural communities.

⁴ Differing from his thought, I am not talking of a world of ideas, neither we have to put ourselves in the hands of the philosophers. Rather it is in our own hands to live a world of more reality.

reality) within which common people are born with the ignorance of the existence of a material reality outside it.

Daly (1999) gives a good explanation of the historical evolution of the trade system that, beginning from goods (G) and introducing afterwards money (M), it transforms itself from a barter strucutre "G-G", to pure financial speculation, following the steps "G-M-G" then "M-G-M" and finally "M-M". This evolution goes together with economic growth. In western cosmovision this is seen as a part of Progress but, from the other side of the coin, Progress can be seen as development from natural reality to virtual (monetary) reality, the fallacy of misplaced concreteness (Daly and Cobb, 1989)⁵.

This polarized dualistic vision system – autonomy is subjective and the neorural reality forms more part of the system if autonomy from the system is a gipsy clan or a nomadic lifestyle not based on agriculture. So I could indicate the system as a whole, like a sphere. Within it there are tendencies that move towards the centre (like a trade system evolving towards M-M, or progress as conceived in the western cosmology, or planification, or Urras, or the monocriterion, or the capitalist machine, or man at the centre of the universe, or towards dematerialization) and there are also tendencies moving towards the periphery (towards an original anarchic state of nature, a gift based trade system, nomadic lifestyles, Anarres, towards a cosmovision centred on the reality of here and now).

The system we live in could be conceived as a tendence towards the cave, towards Urras, towards the Matrix, towards "M-M". The neorural lifestyle could be conceived as a tendence towards light, towards Anarres, towards Sion (The Matrix), towards "G-G" trade system. It is important to mark the dfference between a tendence -where the path goes to-, and the actual position of the system —only a step in a path. It is also important to say that if the step done here and now moves on a path that leads in one direction, it does not mean that every step in that direction has to be done: the reference has to be kept with respect to both the paths that lead in the opposite directions.

This paper is then structured as follows: in order to better explain its meaning and in order to make a connection with scientific language, the next section deals with the discourse about autonomy. For reasons that have emerged during my "fieldwork" the discourse will be presented both under a political point of view (particularly the squatting movement in Barcelona) and under an ecological one (particularly Georgescu-Roegen's discourse), but in the neorurals' life reality autonomy is perceived as a whole. The third section shows examples of the steps that make the path towards autonomy and that can be seen as my main finding in the comparison between Barcelona's neorurals (both rurals and urbans: *rurbans*) and neorural communities more isolated in the Pyrenees. The next step goes into the explication of autonomy from the system and from its main elements: time (for paid work) and money. Money is only an economic mean to satisfy people's needs (which I intend as the final goal), while Time is a real physical setting (the entropic arrow of Time) for money. This introduces the concept of the multicriterial choice of time where other criteria than money are evaluated for personal decision making in the allocation of time and over its entropic use, which means how much energy we are consuming during any time interval. Physically is how much power we are generating. The final section is political and argues that "Do It Yourself" as a reality —as shown in the neorural experience-

_

⁵ I have not found scientific evidence showing that the dependent variable "needs satisfaction" which is in my basic understanding an economic goal, is a crescent monotonic function of this trade evolution. Or rather, if we consider the other side of the coin, if we could give a value to the costs of progress, then progress is affected by the law of decreasing marginal returns.

provides sinergic advantages in terms of human ecology and, facing the environmental crisis, it should have a right to be tested. Finally "creative leisure time" marks what can be called the reality of the multicriterial choice of time.

2 Tension between "Karcelona" and "Baceloca". The discourse about autonomy: elements of political and ecological autonomy in Catalonia.

The content of this paragraph is drawn from the overall political and ecological context of Catalonia, in which the reality Barcelona represents a reference. "Karcelona" and "Barceloca" are two alternative names that you get to know when living in the city. But they have opposite meanings because one sounds like "carcel" (prison), and the other like "loca" (in the sense of lively crazy city). So what is the real image of Barcelona? In the light of this paper the answer is both, because prison and liveliness represent two opposite paths, two exreme directions where the context is leading towards, in this way creating and showing a conflict. The existence of such a conflict does not need to be negative (O' Neill, 2005) in fact it is considered as an inspiration for this paper. "Karcelona" is willing to attract growing amount of foreign capital, fashion and tourism by creating a brand -the whole city becomes, beginning with the Olimpic Games in 1992, a market product, a patent, a copyright (Unió Temporal d'Escribes, 2004); but from the other side "Barceloca" is a reference in the world movement for its capacity of artistical and political expression, for the diversity of the lifestyles of its inhabitants, for its combusting life, its street protests, the proliferation of squats and social centres, and, with reference to the context of this paper, the possibility to live with less money given the amount of alternative oikonomic means.

This paragraph is strucured in a section about realities of political autonomy, mainly in Barcelona and a section of realities in ecological autonomy. Both sections develop also in an analysis under an academic perspective.

2.1 Autonomy as a political discourse in the Barcelona context.

Autonomy is an evident reality in Barcelona. Here follows a list of written material (literature, periodism) which is possible to use as a reference. It includes a wide spectrum of realities with evidence from history, from trade unions, from organizations of common people and from radical-grassroot movement.

History of an Anarchist Barcelona can be find between 1936 and 1937. We can picture this as a case of political autonomy from political parties. (Lonely Planet, 1999 Barcelona). In my personal justification of why to talk about autonomy I use as a reference a tourist guide because this discourse interested me since even before living in BCN.

There is evidence from within the system that waged working time is organized in two anarco-syndicalist trade unions: CNT, founded in Barcelona in 1910 and with its own publication (CNT paper) and CGT. People also independently organize in social movements: the tradition of investing spare time in autonomous political activism is well established in Barcelona and in Catalunya and as a reference there is a publication consisting of a long list of catalan social movements (more than 60),

counterinformation media and debate magazines (a total of 27), free radios (a total of 15 in Catalunya), existing in the year 2002 (Edicions Col.lectives, 2003). Some of the media for communication, in general, are: horizontal meetings and assemblies (within the social movements), open talks and presentations, Copyleft, alternative publishers (to the wider public), manifestations, direct actions (to government, institutions, mass-media, etc.)

Barcelona's material growth, landscape re-transformation, and fashionable remodelling, socially felt by people affected in their housing is perceived from social and autonomous movements as manifestations of the real estate speculation. As an example of the fallacy of misplaced concreteness (Daly and Cobb, 1989), this virtual monetary game M-M' generates, at the real level G-G', an incredible number of empty houses (and evicted people and destroyed neighbourhoods).

Time for money, necessary for an independent living, is growing together with the increase of rent and the physical remodelling of the city so that the city is full of empty old buildings. Real estate speculation creates money inflow to Barcelona but it also generates the squatting movement and a lifestyle autonomous from money. There are actually more than 100 squats. The movement publishes two "wall newspapers" every week: Infousurpa (a list of event and some news from the squat movement) and Contrainfos (alternative information from the alternative movements, 300 weeks old).

Rurban squatting is present in the Collserola Park, a chain of hills running parallel to the sea along the northwest side of Barcelona, but right at the centre of the wider metropolitan area. Collserola Park is suffering urban sprawling from 360*. Nonetheless, evidence of a rural past in Collserola is shown by 260 rural houses (Casals Costa, 1990), where few of the them continue with agricultural activity, now modernized and many other have either changed management or been abandoned. Amongst the abandoned houses rurban squatting is present in 3 realities, the oldest one squatted in december 1997, and now a "neighbourhood" of a total of 8 houses, with people from 2 generations.

In the rurban reality the discourse about autonomy is an emergent combination of political autonomy, in particular the discourse of the urban squat movement and the ecological autonomy, more characteristical of the neorural perspective, represented in the agro-ecological movement in the Spanish peninsula and in South America (Altieri, 1999 and 2001; Badall, 2001; and Badall, 2003) and by the philosophy of permaculture (Mollison, 1988 and 1994). The term itself "rurban" stands for rural and urban. The reality is certainly more complex than this clear separation: for one side there are cases from the squat movement of urban collective gardening and from the other side state repression in Spain in the eviction of Sasé, a squatted rural village, and in the Basque Countries the inundation of the Itoiz valley, with traditional rural villages that during centuries had never been abandoned (Solidari@s con Itoiz, 2004). More written material about rurban and rural squatting can be found in the quarterly magazine "La llamada del cuerno", and in Greenpepper (2003).

All this can metaphorically be defined as fertile land: while in the soil this is an indicator of the concentration of *organic material* over the amount of dead earth, in the city it can be equivalent to the concentration of *organized movement* over the size of the system.

2.2 An analysis under academic perspective

Starting from my perceived reality of 3 years in Barcelona⁶ and of its political reality, and melting it in a technical language suitable for this paper, I could say that Autonomy is a value that reminds of independence, freedom, emancipacion, etc. and is a discourse to start with: any dictionary of synonymous can be used as a reference. From the reality of every day we can judge the importance of all these values from the fact that they are immaterial needs often advertised and sold in the market with the purchase of physical and virtual artificial products which costs money. Money has a curious characteristic: not is found neither it grows in nature, differently from real wealth, subject to the laws of thermodynamics, debt in money (that is financial wealth or, as Soddy called it, "virtual wealth", does not dacay entropically with the time but, as the opposite, it grows according to the law of compound interest (Martinez Alier and Roca, 2000).

Because in this analysis I want to contextualize money into nature, I will stress on two variables it depends from; on two real resources, so that in general:

either we need time to make money⁷ or,

money can be made by inventing and or selling more products. As every product has an embodied energy (Odum et al, 2000), money depends from energy and, in ultimate instance, entropy.

Once money comes to existence, other variables that determine its particular distribution are time and space where we are born⁸, a very complex issue indeed, which is not the scope of this paper, but that for those who like scientific reductionism can be reduced to the idea of "good luck".

This relation of money creation and distribution over space and time is, according to Rawls (1971) undemocratic because there is no right of choice; according to Bruntland (1987) it is unsustainable development because it does not respect present and future generations; according to NGO and social movements something that needs to be changed within or without the system; according to the anarchist movement the system generating these conditions is a direct enemy ("No border no nations", "no family, no state, no church").

Barcelona is a city which is more and more governed by the presence of money and the market and is undergoing a physical remodelling, especially in the real estate sector where houses in the old neighbourhood are destryed, its people cheaply evicted and new expensive apartments are built. The criticism from the perspective of the political autonomy is that when the width of the spectrum of choice offered by the system is reduced to money, people in a "fertile" context -like the one in Barcelona where a critical mass of independent autonomous thought is achieved- are presently organizing to fight for the use of alterntaive means. These people find in the obligation to dedicate their time in finding money and in the *a priori* acceptance of a system divided between lucky people and not lucky people a reduction in freedom and autonomy. This value counts more than the "freedom" and

_

⁶ For the interested ones there are references in the list of alterntive publications and everybody is welcome to visit and see with their own eyes.

⁷ In a monocriterial crematistic cosmovision and according to the criticized law of compound interest rate time is money but in a paradigm that recognises multiple perspectives time is not only money; the discourse could be stretch to state that Time wants to be autonomous from money

⁸ For example people born today have more money than people born in the past; people born in the western world have more money than people born in developing countries and so on, people (and real estate enterprises) with houses can have more money than people without houses.

"autonomy" that can be bought with a four wheel drive, with a new flat, or with other artificialities sold in the system. In synthesis the language of system and the language of the movement understand Autonomy in very different ways. The need for autonomy, of different types, has hisotrically been justified as one of its movers, and is presently repressed by the capitalist establishment, and by supposedly democratic States.

2.3 Autonomy as an ecological path...leading up to Collserola and then the Pirenees.

Autonomy as an ecological characteristic takes the form of the neorural lifestyle and work: ecological autonomy from the system depends from access to natural oikonomic means. But it cannot be separeted from political autonomy: in fact at its base stands a profound political discourse. It is a matter of political ecology, it is a matter of agroecology and of social ecology. Nonetheless when the discourse about ecological autonomy becomes a lifestyle reality we can observe this as an alternative oikonomic system; my thesis is that this is an ecological economic one. This thesis is to prove that a path (important to note: not the path, but a path) towards ecological economics can be taken starting from a discourse around political and ecological autonomy.

If in Barcelona political autonomy develops mainly towards autonomy from the money (because other oikonomic means are employed, like for example social cooperation and recycling from the system), in the realm of ecological autonomy we can see that a higher quantity of non-monetary oikonomic means come directly from natural resources. This means that a choice of not using the system (even if recycling comes for free) is made in order to develop an alternative system that I would characterized as based on life (physical reality). This does not mean that the ecological impact is reduced, because for instance the HANPP indicator would grow as one chooses not to recycle food from the market but to open a natural piece of land for agriculture. Or because a car would be more necessary in a pirenees rural village than in the centre of Barcelona.

One particular value of the discourse about ecological autonomy is "what if the system fails?" In the experiences that I have observed autonomy from the system is not an *a priori* plan, rather ecological autonomy is the result of the need for a better quality of life (searched in a natural environment or in organic gardening: better food and free-libertarian work, work for free, free from obligations)

2.4 An analysis under academic perspective

The economics of ecological autonomy could be considered as a tendence towards bioeconomics because most needs are satisfied with biological (renewable) resources, either exosomatic or endosomatic, and with a reduced employment of capital equipment (non-biological oikonomic means), also called exosomatic instruments (Lotka, 1945; Georgescu-Roegen, 1971).

Mankind's evolution of exosomatic organs has made his life easier (Georgescu-Roegen, 1971) but, from the other side, it has reduced his own ecological autonomy as, in order to satisfy his needs, he depends from increasing energy requirements and from capital equipment that —unlikely biological resources- does not grow, maintain, reproduce and evolve by itself but needs to be conceived through abstraction, planned, designed, built, maintained and disposed of.

Different oikonomic systems are shown in table as a combination of exosomatic and endosomatic energy use and renewable (biological) or non renewable energies.

Table 1: renewable, non-renewable, exosomatic, endosomatic energy

Energy in different oikonomic systems	Renewable energy	Non-renewable energy
Exosomatic energy	Bioeconomics Slavery system	Tendence of the System
Endosomatic energy	Bioeconomics Tendence of the Neorural	

Together with a discourse on employment of renewable energies, by which the ecological economics literature is full of, I argue that it is important to focus also on the value of endosomatic energy employment. In order to make renewable energies sources really alternative and not only complementary sources with respect to non-renewable ones, the discourse about exosomatic and endosomatic energies is important: food (organically grown) could become a real alternative in terms of renewable sources as it generates endogenous energy that can be used in alternative to exogenous ones. Beyond this ecological discourse, moving the energy debate around "exosomatic versus endosomatic" has a point in terms of the social conflict existing between those who have control of exosomatic sources of energy and those who have not (Georgescu-Roegen, 1971). This conflict originates with the birth of calorically "lazy" elites, characterized by a sedentarian lifestyle and an economic production which is the result of abstract thought. Marx (1968) says that the scientific and the worker are completely separated and science rather than helping the worker goes against him, splitting knowledge and work. As well, Georgescu-Roegen states that "...the fact the every elite performs services which do not produce a palpable, measurable result leads not only to economic privileges, as I have argued above, but also to abuses of all kinds. The political power of any ruling elite offers the elite the possibility of extolling the value of its services in the eyes of the masses and thus making any increase in privileges appear "logical"." (Georgescu-Roegen, 1971, pag. 311).

From this point of view, we can add an interpretation to the environmental crisis: not only we should switch our economies from non-renewable to renewable sources, but also we could deploy more our own autonomous personal capacities (endogenous energy) as ecological oikonomic means. Sahlins (1977) talks of "either wanting more or needing less" and this is true for energy as an oikonomic mean. Considering the importance of human ecology, Bateson (1943) hoped for a psychological expansion that, unlikely matter and energy use, can be infinite.

An academic reference from a neorural can be found in Badall's thesis (Badall, 2001) on (political-ecology) self-sufficiency and the concept of lived ecologism because the neorural lifestyle is ecological in itself. Badall's lived ecologism differs from "part-time" ecologism of people who have care for the environment but who finally live a lifestyle more related to the ecology of money, that I would define here as "non-core ecologism".

A similar two-variable matrix can be drawn from the combination of money and material use in an oikonomic system. This interpretation is suggested from the sensation that a dematerialized economy would not be the solution in terms of human ecology, where elements of virtual reality are present and

the fundaments of this reality lie in a body-mind split⁹. A way to put light on other economic alternatives is to consider the extremes of a matter and money combination. Table 2 shows an example where the neorural lifestyle, based on a low material input, marks its distance from a conventional dematerialized economy.

Table 2: dematerialization is necessary, but yet not sufficient!

Money and materials	Monetarian oikonomy	Natural resource based oikonomy
Higher	Actual tendence	Natural resource
material flow	of the System	economics (non-
		renewable).
		Unsustainable
Lower material	Dematerialized	Natural resource
flow	economy	economics (renewable)
	Likely tendence	Tendence of the
	of the System	neorural

When considering the actual unbalance of money as an oikonomic mean Can Masdeu, a rurban squat in the Collserola Park, recommends to swap money, motor of the crematistic economy, for community, motor of the solidarian economy (Busqueta and Marco, 2004).

3 Steps towards autonomy.

As I mentioned earlier, autonomy is a path, and different points in the path represent different levels and typologies of autonomy. Also, it cannot be decoupled from freedom of choice. Evidence from catalan alternative lifestyles shows that for different typologies of autonomy, freedom of choice is either hidden, condemned or repressed. This section will show the steps that have been done so far in the path towards autonomy.

3.1 Autonomy of thought.

The first level of autonomy is based on the core degree of freedom: freedom of thought. Contrasting to the motto of a disappeared american showman, saying with irony that Western citizens are "free to do what we tell you ("we" stands for the system)", freedom of thought can make us not believe the globally advertised production and consumption patterns, often stereotyped. Alternative ways of monetary consumption can be chosen; this is the realm of sustainable consumption, fair trade, ethical investment.... Nonetheless money is still being used and -as I've learned from ecology but not from economics- we need to think in cycles: the cycle of money is hardly unknown (there is a need to focus in the ecology of money) and behind sustainable consumption major global capital can hide. Do I know what my organic butcher will do with the money I paid him/her? What is the ecological impact of my Yoga classes? If the teacher flies to India twice a year?

⁹ For example a situation of two people sitting next to each other on a train, both communicating to a mobile phone rather than with each other suggests that a reason for this to happen is to market more human needs, and not only to "improve communication".

3.2 Autonomy from the money

So, if the first step is the autonomy of thoughts: "I chose not believe tv and not buying a new car, so I put my money in a long travel to discover other cultures", the second step is the one that achieves autonomy from the money: "...but still I was paying airlines for my travels, so I went hitchiking".

Providing evidence from the lifestyle of urban squatters in Barcelona (urban hunter-gatherers) and from the neorural lifestyle of Barcelona's rurban squatters, a step towards autonomy from the money is explained, where, stemming from a different social and environmental ethics, recycling, expropriation and increased selfproduction are achieved (Cattaneo, 2005). However, proximity to a metropolis makes the final step of autonomy from the system a more difficult (and futile) task.

3.3 Autonomy from the system

"Still I depended from the car industry, so I went walking -and found I didn't need to go that far to have an enjoyable trip": the final step of autonomy from the system is shown from the evidence of neorural people from the repopulated villages of the Spanish Pirenees (and from the latest phases of evolution of a "rurban" squat where improved gardening skills and creation of ecological infrastrucutre has reduced dependance from city recycling). In the Pyrenees case, the distance from the city and the richness of the natural surrounding environment makes possible a lifestyle that is to a certain extent independent form the global system, while in the "rurban" case autonomy from the system becomes real as a co-evolutionary process between several living elements like social/community interaction, personal capacities and ecological rural environment; that is a co-evolution between endogenous life systems and exogenous life systems.

As seen in section 2, considering that the discourse about political autonomy in Barcelona is the base for autonomy of thought (and a widespread tolerance towards different lifestyles), in this fertile ground autonomy from money grows in different lifestyles and autonomy from the system is now germinating in the hills of Collserola. Moving away from the city the environment becomes more natural and less artificial so that autonomy from the system becomes more evident in the neorural lifestyles.

But, contrasting to these lifestyles of "Barceloca" –where everything is possible, "Karcelona", its opposite face, is pushing with government intervention and repression towards the limitation of the freedom of choice. This is true for the squatters but also for the common citizens of poorer areas who are suffering the transformation and remodelling of the city and who are evicted with no choice from their homes.

Table 3 is a synthesis of the steps towards autonomy and considers which lifestyles can be an example in each step, which freedom of choice is given (and elements of repression) and, anticipating the content of the final section, which is the main real oikonomic mean when money is not.

Table 3: styeps towards autonomy

Typology of autonomy	Example in the experienced context	Freedom of choice	Main real oikonomic mean
to do what the system tells	common lifestyle in the Western world and in Barcelona	only within the market and the law	Time for money
Of thought	Anarcosindicalists: CNT, CGT	more or less hidden	Time for money and politics
and from the money	urban squatters	condemned, highly repressed	Community, system outputs, creative leisure time
and a bit from the system	rurban squatters in Collserola Park	condemned, highly repressed	Community, land, system outputs, crative leisure time
and a lot from the system	isolated neorurals	condemned, repressed	Land, community, free and creative leisure time

With reference to a basic human need like alimentation an evolution of the spectrum of (autonomous) choice in the path towards autonomy can be explained in this way: eating at McDonald's or KFC; the american freedom. Autonomy of thought widens the spectrum of choice to an upper level of eating in a fast food versus eating in an organic restaurant. The development of personal capacities is an oikonomic mean alternative to money, so that dedicating time in learning how to cook can save money spent in eating out. Switching this capacities development from the system to the nature can be useful in learning how to grow your own food and increase independence from the system (Cattaneo, 2005).

Finlly we can even think to an example of an upper level of autonomy in alimentation —which I did not observe in my "fieldwork" but that is present in the Indian philosophy: pranayama, that is using respiration techniques to increase body energy. In this case the need satisfactor (for a basic need like alimentation) could move towards an endogenous one.

In summary new ethics, community and development of personal capacities for our basic needs are the ingredients necessary to move along the path towards autonomy.

4 Evidence

The only evidence provided in this paper is about reduced money need as an economic mean. Nonetheless money -which is an artificial invention not present in nature (for instance it is not alive neither fundamental to life) has to be translated into two real economic means (that are scarce) and that are fundamental in ecological economics: time and lower entropy. In this way an abstract entitiy like money value can be contextualized in a real physical framework and a multiple perspective is introduced. In practice reduced money need means reduced system dependence (less time for money with also an implication on a different human ecology) and means also reduced ecological impacts (that accelerate entropy).

In table 4 I made a comparison between the economics towards which the system tends and the oikonomics marking the tendence of the neorural lifestyle (in the park of Collserola, Barcelona). Considering five categories of expenditure it is already possible to see a huge difference between the system and the rurban neorurals, in terms of quantity of money and consequently in terms of quantity of time which is dedicated for achieving this economic mean.

Table 4: economics of the system and oikonomics of the neorurals (in Collserola). Source: Caixa Catalunya and own elaboration.

	System		Neorurals (Sample size: 15)			
Category	Money:	Money	Physical	Money:	Times ¹¹ :	Physical
	€/month	time ¹⁰ :	impact (i.e.	€/month	h/month	impact (i.e.
		h/month	entropy)			entropy)
Housing	251	30	Landscape	5	1 + 25 (i.e.	Recycling,
and			change,		improving the	boicot of bank
furniture			material		quality of the	money
			consumption		squat)	lending
Food	328	38	Agroindustry	40 euro	7 + 25 (i.e.	organic
					gardening	agriculture,
					and cooking)	boicot of
	004	0.4	1 111 1	4.0	0 5 ()	agroindustry
Transport	221	26 +	killed people,	10 euro	3 + 5 (i.e.	Endogenous
		time to	climate		maintaining	energy and
		go to work	change, congestion		the bycicle)	disminution of
Holiday	170	20	landscape	0 euro		car impact boicot of
попав	170	20	change,	0 euro		mainstream
			climate			tourism
			change			consumption
			change			patterns
Travels				25 euro	4 + 0	some boicot
						on planes
Cloths	139	16	high material	2 euro	0.3 + 1 (i.e.	•
			consumption		recycling,	
			for		mending,	
			immaterial		making)	
			need like			
			fashion			
Leisure,	185	21		50 euro	8 +	
health and					indeterminate	
learning					amount	
Telephone	35	4		15 euro	2.5	
Total	1461	170		200 euro	33.3 hours +	
					all creative	
					leisure time	

Conventional system dependant lifestyles show that 1109 euros, equivalent to nearly 130 hours per month, are dedicated to housing, food, transport, holiday and cloths. The neorural autonomy shows that these five needs are satisfied with 82 euro per month, equivalent to 13 hours of paid working time per month. All together 150-200 euros per month is the amount of money needed by a neorural per month. A community monetarian economy is developed as well and can vary between 25 and 40 euros per person per month and the time dedicated to community working for money is closer to the

¹⁰ Time for money (calculated at 8.6 euros per hour: 1462 €/month and 170 h/month)

¹¹ Two times: time for money (calculated at 6 euros per hour) + "creative leisure time" (note that this cannot be reduced only to quantification because there is a qualitative difference in terms of human ecology, and this is a fundamental argument in my thesis

characteristics of creative leisure time than those of paid work time. In isolated villages of the catalan pyrenees the calculation is more difficult, with food and transport¹² as the main elements of expenditure (Badall, 2005).

5 Creative leisure time and the multicriterial choice of time

This paragraph develops from the meaning of the column "times" in the neorural lifestyle of table 4. Earlier I said that if money is an economic mean, time is its reference in the physical reality and has to be considered in oikonomics. As I said earlier, the statement "Time is money" is a reductionist way to look at time. It is true nonetheless that money, as an economic mean, requires time for obtaining it. Other economic means different than money also require time. I argue that there is a fundamental difference between time for money and time for other oikonomic means. That is why the column "times" in table 4 is the sum of money time (paid work)¹³ and of "creative leisure time". Simply: if in the neorural lifestyle 40 euros per month are enough for alimentation, which requires nearly 7 hours of paid work time versus 38 hours as the average in conventional lifestyles is because alimentation is satisfied with some degrees of independence from the money and from the system: in fact some food is self produced, other food is recycled, other is not eaten (because is expensive food, or trash food, or unsustainable food).

Historically critiques to paid working time and to the division of labour have been many. When talking about the economics of time Gorz (2001) is a reference: "work less to work all". But his criticism does not come from the neorural experience, a physical reality in some aspects different from the system; his argument is for changing the money system and making it work better. On the other side autonomous people and squatters in Barcelona respond to the slogan "Abajo el Trabajo!" 14. Gorz's interpretation of economics comes from the collective imagination of the mainstream view according to which economics is reduced to money. In the physical reality outside the collective imagination economics has to be considered in general as oikonomics. In oikonomics time finds the space to free itself from money. Gorz's thesis is centered around the fact that we could dedicate less time to paid work and have more time for "working outside the economy in tasks not performed for economic ends" (Gorz, 2001), like for instance in more cultural activities and more leisure time. But a cultural activity can be seen as an oikonomic mean to satisfy my need for, say, knowledge. He also believes in a social income guaranteed as "a form of social assistance provided by the state", but this underlines dependence from the money and from the system. I feel as a human being that freeing time from money improves our human ecology. This is because less time is dedicated to alienating work (Marx, 1968). Less alienation makes it easier to satisfy some categories of needs with satisfactors that require less ecological impact. Alienation might imply a need for power (either physical or political). A counter proof comes from marketing communication: in the case of a car advert its physical quantitative characteristics are less evident than immaterials elements of owning a car. It is sold as a

¹² Living often isolated, or far away from a school means that a car is needed to move to a place with other people, to a market, to a school.

¹³ and also, for the more powerful and not the case of neorurals, profit and interest rate.

¹⁴ fuck (paid) work.

satisfactor of the need for freedom, style, independence or any other emotion. Why do people need to produce 100 horse power to feel happy, cool or safe?¹⁵

5.1 The multicriterial choice of time

This theme arises for analogy with the contribution of the ecological economics paradigm in multicriteria decision making. But while one is applied exogenously with respect to our lives, like for example a government project, the multicriterial choice of time is applied endogenously. In the neorural case I could say that some criteria of time allocation other than in money-making have a fundamental value (basically autonomy and freedom) and that are therefore considered in personal decision making with respect to the satisfaction of our needs.

needs	which satisfactors do I use for my needs?		
satisfaction ->	how am I going to allocate time?		
(oikonomic end)	(exogenous and endogenous oikonomic means ¹⁶)		
	money	()	

money	■ ()	
recycling	■ ()	
people	■ ()	■ ()
nature	■ ()	■ ()
	exogenous	endogenous

choice criteria	requirements
time for money	faith in the system
time for autonomy from the money (i.e. recycling)	autonomy of thought
time for autonomy from the system: (i.e. based on life: people and nature)	development of personal capacities and ecological understanding

Figure 1: basic representation of the process of the multicriterial choice of time

6 Conclusions

As introduced in the beginning, this dualistic view of system vs. autonomy comes from another planet. During three years I have left the academia and have observed and practiced ecological economics under the sun. Like plants grow differently outdoor than indoor, also my ideas developed from

¹⁵ And this is not to talk about death: in 1999 cars killed more than 750.000 people in the world. (Toledo, 2003)

¹⁶ time and lower entropy are the oikonomic means of the physical reality.

spending time in neorural autonomy in a different way than if I had sat at a computer desk 40 hours per week for the past three years. This is my interpretation of transdisciplinarity. As a philosophy of life I believe in the *ying-yang* simbol. You can see this as one (and I intend the reality); inside it two opposite colours are compenetrating (and I intend the system and the autonomy), and each opposite colour contains the seed of the other (and I intend the complexity of reality and a faith in the diversity).

References

- Alteri, M., 1999. Agroecología. Bases científicas para una agricultura sustentable. Norman-comunidad Editors, Montevideo.
- Alteri, M., 2001. La Agroecología, útil de cambio social. La Fertilidad de la Tierra, 5:11-15.
- Badall, M., 2001. Nucleos rehabitados y experiencias de autoabastecimiento. MSc thesis in Agroecology and Sustainable Rural Development, Internacional University of Andalucia.
- Bateson, G., 1943. La dignidad humana y las diversidades de la civilización. In: G. Bateson, A Sacred Unity.
- Busqueta, J.M. and Marco, E., 2004. Lluites rurals i urbanes en el territori catalá. Emergencies, 3:109-134.
- Caixa Catalunya, 2005. Informe sobre el consumo y economía familiar. http://www.caixacatalunya.com/caixacat/es/ccpublic/particulars/default.htm
- Casals Costa, V., 1990. De lo global a lo local. El caso de la sierra de Collserola. Mientras Tanto, 45:17-28.
- Cattaneo, C., 2005. Los estilos de vida de I@s neorurales. Esquemas de producción y consumo y análisis del discurso. MSc thesis in Environmental Sciences. ICTA-UAB, Barcelona.
- Daly, H., 1999. Ecological economics and the ecology of economics essays in criticism. Edward Elgar, Cheltenham.
- Daly, H. and Cobb, J., 1990. For the common good: redirecting the economy toward community, the environment and a sustainable future. Green Print, London.
- Georgescu-Roegen, N., 1971. The Entropy Law and the Economic Process. Harward University Press.
- Giampietro, M., 2002. The Precautionary Principle and Ecological Hazards of Genetically Modified Organisms. Ambio, 31:466-470.
- Giampietro, M., 2004. Multi-scale integrated analysis of agroecosystems. CRC Press, London.
- Gorz, A., 2001. Critique of Economic Reason: Summary for Trade Unionists and other Left Activists. http://www.antenna.nl/~waterman/gorz.html
- Leguin, U., 1977. The Dispossessed.

Lotka, A., 1945. The Law of Evolution as a Maximal Principle. Human Biology, XVII.

Martinez-Alier, J. and Roca, J., 2000. Economía ecológica y política ambiental. PNUMA, Mexico D.F.

Marx, K., 1968. El Capital. Halcón, Madrid.

Max-Neef, M., 1993. Desarrollo a escala humana. Icaria, Barcelona.

Mollison, B., 1988. Permaculture A designers' Manual. Tagari, Tyalgum, NSW.

Mollison, B., 1994. Introducción a la permacultura. Tagari, Tyalgum, NSW.

Odum, H.T., Brown, M.T., Brandt-Williams, S., 2000. Handbook of Emergy Valuation - Folio #1 Introduction and Global Budget. University of Florida, Gainesville.

O'Neill, J., 2005. Representing the World, Representing Humanity, Representing Nature. Seminar in Environmental Science. ICTA – UAB, Barcelona.

Rawls, J., 1971. A theory of Justice. Harward University Press, Cambridge MA.

Sahlins, M., 1977. Stone Age Economics.

Toledo, V., 2003. La religión del automóvil – Crónica de una tragedia. Ecología Política 23:9-12.

Alternative publications and personal communications

Badall, 2003. Brasero - Pamphlet on agroecological movement. Desafinando, 2003.

Badall, 2005. Personal communication.

CNT. www.periodicocnt.org

Contrainfos- Weekly newspaper of counterinformation. www.sindominio.net/zitzania

Edicions Col.lectives, 2003. Guia Útil. www.moviments.info

Greenpepper, 2003. Water. http://squat.net/cia/gp

Infousurpa- Weekly newspaper of counterinformation. http://usurpa.sytes.net

La llamada del Cuerno. Quarterly magazine on the neorural movement. Can Pascual, Barcelona.

Solidari@s con Itoiz, 2004. Itoiz Artozki. The broken memory. www.sositoiz.com

Unió Temporal d'Escribes, 2004. Ba®celona marca registrada. Un model per desarmar. Virus editorial, Barcelona.

Formato de citación

Cattaneo, Claudio (2005). Steps towards autonomy: autonomy of your thinking, autonomy from the money and autonomy from the system. The multicriterial choice of time: creative leisure time.. *Athenea Digital*, 8. Disponible en http://antalya.uab.es/athenea/num8/cattaneo.pdf



Este texto está protegido por una licencia Creative Commons.

Usted es libre de copiar, distribuir y comunicar públicamente la obra bajo las siguientes condiciones:

Reconocimiento: Debe reconocer y citar al autor original.

No comercial. No puede utilizar esta obra para fines comerciales.

Sin obras derivadas. No se puede alterar, transformar, o generar una obra derivada a partir de esta obra.

Resumen de licencia

Texto completo de la licencia