

Morin, Beck and Latouche: for an ecology of action in the light of degrowth

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Abstract

The French thinker, Edgar Morin, has coined the concept of ecology of action, made of two principles: 1) every action is made by an actor in a system whose inter-retro-actions of its elements will change and pervert the action itself; 2) the consequences of an action are less and less predictable during the passing of time. Morin comments it by warning us from inaction and dresses a scheme of action made by the wager and the strategy. I propose to enrich this scheme by adding Ulrich Beck's discussions on the precautionary principle and the upstream action, and by doing a eulogy of inaction in the frame of the degrowth theory.

Keywords

Edgar Morin, Ulrich Beck, Serge Latouche, ecology of action, wager, strategy, precautionary principle, upstream action, degrowth.

Introduction

Ecologists' opposition against the environmental destruction caused by enterprises, institutions or private citizens, is but one of the aspects of an ecological action. Even corrective or eco-compatible measures often lack a truly ecologic vision, namely complex. Hence the necessity of an ecology of action, informed by a thought that be guided by the consciousness and the principles of complexity. Then we need to deduce a scheme of possible actions to apply case by case. Such a project can be pursued by linking two thinkers, who are quite different but have a similar approach and commune preoccupations. On one hand, we have the French thinker of complexity Edgar Morin, and on the other, the German sociologist Ulrich Beck. Despite they do not cite each other, I think that if bonded together they are particularly powerful.

In this article, I will try to create a liaison between the ecology of action, which Morin has described in many of his books, and certain theses that Beck has exposed in his famous book, *Risk society* (Beck, 1986). After enunciating Morin's principles, we will try to enrich the scheme of action modalities he proposes, by taking Beck's discussions on the precautionary principle and on the upstream action. To this I will add a eulogy of inaction, which I find more and more necessary in the prospective of an economy and a society of degrowth. Concerning the latter one, I will make reference mainly to the oeuvre by French economist, Serge Latouche.

The ecology of action by Edgar Morin

In 1935, 102 toads of the species *Bufo marinus*, from Central and South America, were introduced along the coast of Queensland in Australia by some local farmers. These came

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to know about an anecdote, according to which such a toad had contributed to reduce the number of pests in sugar cane plantations where it had been introduced so far. Levering with this, they constituted a lobby, which pushed the government to follow the example in other countries. The species, in Australia as elsewhere, adapted, did not diminish the number of pests that much, and started to expand exponentially year by year.² Today it represents one of the most leading environmental problems of northern and oriental Australia. The anurans have had ominous consequences on the local animals: Monitor lizards' populations have diminished as well as those of marsupials. If the first ones have partially adapted and have regained almost their original volume, the second ones continue to reduce in parallel to the toads' invasion. Moreover, the species invades the ecologic niches of other native amphibians, and exploits the alimentary sources of Australian birds, reptiles and amphibians. This perturbs the trophic chain both vertically (by empoisoning the predators and by preying smaller anurans) and horizontally (by reducing the natives species' preys with which it competes). The expansion of *Bufo marinus* has natural (biologically and ecologically) and human limits (in 1980 efforts and researches to embank this invasion have begun). Nonetheless, it has caused ecologic problems of a certain weight. What is more, it has not reached the aim for which it had been introduced, thus representing a proverbial failure of human intervention on the environment with productive goals.³

Why to mention here the history of an American toad introduced in Australia with detrimental consequences on the environment? To have an example that can be a testing ground for the two principles exposed by Edgar Morin in his «ecology of action». It has been proposed in several texts (Morin, 1980, 1990a, 1993, 1999, 2001, 2004). The first principle claims that the effects of a human action depend not only on the intentions of the actor, but also on the conditions of the environment where it unrolls; the second principle affirms that on the long run its effects are less and less predictable compared to the short run ones. To quote Morin himself:

The game of becoming implies evenly the diversion of the action's goal, what I have called the ecology of action, whose first principle is the following one: as soon as launched in a given environment, every action enters a game of inter-retro-actions which modify, divert, and even reverse the course of it; it then slips the will of its author, and can even turn back on him as a boomerang. (Morin, 2001; p. 198).⁴

[...] according to the second principle of the ecology of action, the long run consequences of a big event, starting from the birth of humanity and going up to the DNA discovery, are unpredictable. (*Ibidem*; p. 207).

In other words, an action is always done by an actor in a more or less complex system – an ecosystem, a city, the financial market –, whose inter-retro-actions he does not know entirely. When the actor begins his action keeping in mind a given intention, he may

² From the initial 102 individuals, herpetologists esteem that they have now become about 200 millions.

³ This part cites the interview to Alfred Ross, Australian herpetologist, contained in my book, *A life for Reptiles and Amphibians*, Chimaira editions, Frankfurt a. M, which will appear spring 2013.

⁴ All the quotations of this article coming from French editions are translated by me.

predict with exactitude the consequences of his action up to the moment in which it has started unrolling. The more time passes, the more the inter-retro-actions of the system adapt, change, divert, and betray the action. This brings effects that, in the best of cases, are different or simply null as for the initial aim, and that in the worst ones can be contrary thereof. Regarding *Bufo marinus*, not only the goal has not been reached, but the action has had detrimental effects which have overpassed the – relatively simple – ecosystem of sugar cane plantations. More in detail, the possible perversions are the following ones:

1. The result of the action is not precisely correspondent to the aim;
2. The result is null, the aim is not reached;
3. The result is opposed to the aim, which is the worst case;
4. The result is null, but collateral damages appear, which are detrimental not necessarily to the actor him/herself, but rather to other actors directly, indirectly or not at all implied in the action.

So far, the reasoning is flawless. The ecology of action is an original and acute proposition, which should be taken into account by everybody in any field – be it private, public or entrepreneurial. It is a systemic analysis of every environment where an actor performs an action. What is not a necessary consequence, in Morin's texts, is his way of commenting the implications of his idea, whenever he draws the pragmatic applications that derive from it. After every treatment of the ecology of action in his oeuvres, he specifies that it does not have to lead to inaction – similarly, when he writes about the incertitude as a fundamental element of his method of complexity, he always restates that we do not have to become immobile skeptics. That is why he appeals to the Pascal's Wager and to the strategy:⁵

The ecology of action apparently has to invite to inaction, contingent on three considerations: a) the perverted effect (the unexpected detrimental effect is more important than the benefic expected one); b) the inanity of innovation (the more it changes, the more it is always the same); c) the endangering the obtained gains (we want to enhance society, but we do but suppress liberties and securities). Of course we have to take into account these three considerations [...]. But they do not have the value of deterministic certainties, and moreover the absence of innovation could give free rein to processes of decay, rotting, degradation and, thus, could be mortal.

The ecology of action then is not an invitation to inaction, but to the wager that acknowledges its risks, and to the strategy which allows us to modify, or even annul the action we have begun. (Morin, 1993; p. 154).

Elsewhere, Morin furthermore writes:

⁵ Pascal's Wager consists in living as if God existed, because «If you gain, you gain all; if you lose, you lose nothing» (fragment 418 of Pascal's *Pensées*). In the same way, Morin makes a bet for a better world, less barbaric, with more love, and he thus accepts the incertitude and the risk that the contrary occurs. As for the strategy, Morin opposes it to the program, which is fixed, structured and tested, but incapable to deal with the unpredictable, the novelty. Indeed, the strategy is provided with programmed parts, but they do not have a univocal nor prescribed way of developing; it is less rigid as for its outcome, since it adapts according to the evolution of situations. It is then in a perpetual movement.

We need to face complexity, including that of the actions. We oppose the precautionary principle to the risk one, whereas Pericles had verily expressed the union of these two antagonistic principles, when he said in a speech to Athenians during the Peloponnesian war: «We Athenians are capable of combining prudence and boldness, while the others are either fearful or reckless». What we need is the combination of the two. (Morin, 2005; p. 14).

In the end of the same article: «The intelligence of complexity is to explore the field of possibilities, without restricting it to the formally probable, isn't it?» (*Ibidem*; p. 17). And then, more recently:

Politics is an art [...] The art of politics inevitably implies a wager, thus the risk of the error. As any strategy, it has to be able to ally a risk principle to a precautionary principle. No dosage between these two principles can be established *a priori*. The preeminence of one or the other comes within the competence of the art of politics. (Morin, 2011; p. 45).

Even maintaining the wager and the strategy inside the scheme we propose here, we specify the case where these stratagems should be applied and we add three points more. Our reflection rises from a series of questions which are the following. Why do we have to act *inevitably*? Why do we have to act *anyway*, vis-à-vis situations where our actions may trigger detrimental effects? More generally, why do we act? On the other hand, why do we have to show boldness, while immobility is often the wisest thing to choose, especially in a world suffering from our too audacious, hurried and progressive interventions? What pushes us to this sort of irrepressible and incontestable bulimia of action? Maybe is it the fear of being judged reactionary, a leftist reflex? In Morin's case, what is quite sure is that his motivation is coherent with an aphorism of his – present *passim* in *The method* –, which says that everything that does not regenerate itself, degenerates. Nevertheless, at a political, ecological and sociological level, we need a conservationist left, capable of making a eulogy of inaction, without the fear of passing as conservative. This, in the prospective of a slower, more austere world, aimed at an economy and a society of degrowth, as it has been described by Serge Latouche (2006, 2007) in France (see Ariès, 2011, for other declinations of degrowth), or Maurizio Pallante (2007, 2009) in Italy.

Another central point of our argumentation – that does not regard Morin's oeuvre – is the following one: why, if we act because we do not have another choice, do we need to intervene on the effects instead of acting *at the beginning* of the chain? In other words: why adding effects to the effects of our precedent actions, instead of operating on the source of the problem? A complex thought, as Morin teaches us, does not have to fear the effort of understanding the causes of a problem – a difficult task, of course – and consequently it has to try to intervene where the problem is generated. The interventions on the end of the chain are not only the most simplistic, quick and inefficient manner to solve a crisis, but also the one that most of the times brings to temporary, albeit spectacular, solutions. They probably make the symptom disappear in the beginning, but intensify the trouble and makes it more difficult to extirpate the problem on the long run: to expulse the immigrants, instead of trying to integrate them; to punish the undisciplined

student, instead of understanding his/her numerous, often hidden, motivations that bring him/her to behave in a blameworthy way; to demand the attention of the class, without making any effort to attract it in a fascinating and constructive way, and so on.

These points will be clearer in the next part dedicated to Beck, who will defend precisely the upstream action and the precautionary principle, giving us the means to avoid the risks of interventionist drifts.

Beck, the precautionary principle and the upstream action

According to the program *PoP (Publish or Perish)* by Anne-Wil Harzing (2007), the English version of Ulrich Beck's book, *Risk Society* (1992), is one of the most cited sociological texts on *Google Scholar*. If *The Constitution of Society: Outline of Theory of Structuration* by Anthony Giddens possesses 23.600 citations, Beck's book has 18.200. The *International Sociological Association* votes *Risk Society* as the 19th most influential book of sociology in the XX century, out of 978 taken into consideration.⁶ In spite of the partiality of these data, they provide us with a clear idea of the strong impact that this book has had since its publication on the social sciences, but also on management and politics. The fields it covers are mainly that of sociology of sciences and of work, but its implications touch energetic political choices (nuclear ones in particular), as well as enterprises policies, industrial choices, the production of laws, and the development of citizen associative movements.

The first part of the book is dedicated to the risk society and to the relationship between sciences and society. The second one focuses rather on the different forms of individualization that take place in the risk society, and it touches themes as work, family, women emancipation, school and university. The third one focuses on science reflexivity and on its relationship to politics. The most cited and debated part is the first one (Olivier Borraz, Sciences Po, pers. obs.). We will mention the first serious discussions on the precautionary principle contained in it. We will also treat the third part, for it is there that Beck exposes the logics underpinning the upstream action.

But first, it may be useful to clarify what distinguishes danger from risk. Apparently slight, the difference between these two notions is in fact essential. A danger is a situation capable of damaging the physical integrity of a person, it is highly probable and it can have serious consequences, from superficial wounds to death. The risk is a contingency in which a danger could occur, whose consequences we know roughly – what distinguishes it from casual accident –, but it is scarcely probable. In the technical language, «Risk is a combination of the likelihood of an occurrence of a hazardous event or exposure(s) and the severity of injury or ill health that can be caused by the event or exposure(s)».⁷

The fundamental thesis of Beck's book is «that we are eyewitnesses – as subjects and objects – of a break *within* modernity, which is freeing itself from the contours of classical industrial society and forging a new form – that here we will call the (industrial) risk society» (Beck, 1986; p. 20). In the first modernity, the general problem was that of the distribution of richness, whereas in the contemporary society the problem is now the distribution of risk. Risk tends to overpass the boundaries, is not easily recognizable and it

⁶ http://www.isa-sociology.org/books/vt/bkv_000.htm.

⁷ <http://en.wikipedia.org/wiki/Risk>, accessed 18/06/2012.

is congenital to the system – a sort of secondary, non-wanted effect of modern production techniques.

One of the characteristics of advanced modernity risks is that they are more and more invisible. You need to have very specific competences in order to interpret the situations and to discover the hidden causes of a menace. To get this knowledge, we depend more and more on scientists, who nonetheless minimize risks and often their own ignorance about them. What is more important is that they frequently play the game of industry and politics, which ignore the precautionary principle, because of economic and political interests, or simple blindness. In spite of all this, citizens are more and more conscious of risks, for they are directly affected by them. Which gives them a direct empirical knowledge and pushes them to find on their own the information about what damaged them (see *ibidem*; p. 111). In that occasion, Beck mentions the distinction between scientific rationality and social rationality. The first one is based on pure probability and often has inhuman implications: «two men have two apples. One of them eats both the apples. We can then say that, *in average*, each of them has eaten an apple» (*Ibidem*; p. 45). Social rationality has instead a viewpoint and some values (see Hans Jonas, *Le Principe responsabilité* [Jonas, 1979]). Beck maintains that the two are less and less separate and separable, since scientists have to take into account citizens' expectations and their requests. These citizens are conscious that nowadays we are facing risks capable to trigger catastrophes that make any *a posteriori* action useless.

The increasing skepticism of public opinion is also due to scientists' impotence to respond to the expansion of menaces created by civilization. Beck has no pity on that issue: «To refuse to acknowledge the existence of a risk under the pretext that the state of knowledge is still "confused", means to impede that the necessary measures be taken, and to *increase the danger*»⁸ (*Ibidem*; p. 113). Beck's attack to scientists becomes more fierce when he accuses them to block citizens' protests under the pretext of the absence of proves, by this putting at risk the life of everyone. Created in its most complete, official and international version in 1992 with Rio Declaration on the environment, the precautionary principle is already contained in Beck's argumentation. It has indeed mobilized the pre-Rio movements which Beck talks about in his book (mainly in the third part of it). Anyhow, it has several predecessors and it is part of common sense since always with the proverb «An ounce of prevention is worth a pound of cure», except the fact that the precautionary principle is specifically applied in the case of an environmental and sanitary irreversible risk vis-à-vis a scientific incertitude.⁹

The argumentation is the following: if we put limits to menaces, we favor them. The reasoning concerns attention levels we can read, i.e., in any mobile phone notice. Mine says what follows:

Your mobile phone is a device bounded to emit and receive radiofrequency signals. It is conceived so that it does not pass the limits of expositions to electromagnetic fields recommended by international norms. These norms have been established by

⁸ We need to get rid of a terminological ambiguity: in this case, as in others, the action of those who support the precautionary principle is evidently a legislative or managerial action that has to lead to the halt of all dangerous initiatives. Ecologists' activism is thus an action directed to cause inaction.

⁹ For a brief historical analysis of the principle's precursors, see Bourq & Schlegel (2001; pp. 131-144).

ICNIRP,¹⁰ an independent scientific organism. They take into account security margins destined to guarantee people protection, whatever their age and health state. Such norms utilize a measure unity called SAR (Specific Absorption Rate). SAR limit for mobile devices is of 2 W/kg. SAR highest value measured near the ear during the test of this model is 0.504 W/kg. (GT-I9023 SAR Information, Samsung).

When it is applied what Beck calls the «technocratic syllogism», according to which whatever we do not know is not harmful, the precautionary principle is systematically neglected and people health put at risk. It is in this way that society becomes a big laboratory. The experimentation on human kind finally takes place, but discreetly and often with our unconscious consent. Do we need to remind that pharmaceutical notices invite to see a doctor if *unknown* undesirable effects occur?

The third part of Beck's book is even more focused on the relationship between science and politics. What the author contests is the neat separation we keep making between them, since risks «enroll in a *scientific and political construction*, in a triple way: science becomes (*partial*) *cause, means of definition, and source of solution* of risks» (*Ibidem*; p. 341). To the first modernity corresponded a simple science, which used to apply to the pre-established worlds of nature and society. There was an inside and an outside. This difference disappears when advanced modernity reflexive science contributes to change or to create both nature and society. This transforms the evaluation of secondary effects, which become a problem interior to sciences, not external (that is, sociological, political, etc.). Research turns into both a theoretical and practical problem. Now, it is precisely the evaluation of secondary effects which will allow us to rely to Morin's ecology of action. Beck accomplishes an important distinction concerning the unpredictability of secondary effects:

It is not the stork which brings these consequences – we *fabricate* them. This despite any imponderability, even in sciences, and especially *in sciences*. We realized since then that we operate a schematic distinction between the *calculability* of real external consequences, and the immanent *predictability* of these same consequences.

[...] calculable does not anymore mean controllable in the frame of a finalized rationality [...] if with calculability we mean *predictability*, we face what has been produced in the context of reflexive modernization: in fact, *real* consequences are *the most unpredictable ever*. But at the same time, the induced events stop being latent, and thus become «predictable» in a triple way: we dispose (by principle) some knowledge about them; we cannot keep claiming anymore that we cannot control them; third, insofar as we know the *possible* effects, we must take them into account in the action. Secondary effects become then less and less «calculable», but more and more «predictable»; there is more: one thing determines the other. (*Ibidem*; pp. 379-381).

With the excuse of just dealing with science and not with politics, scientists generally separate their work from the reality where it will develop and spread its effects. In the same way, they distinguish what is predictable from what is calculable. The fact that the

¹⁰ International Commission on Non-Ionizing Radiation Protection: <http://www.icnirp.de/>.

consequences of the applications of scientific achievements are not *precisely* calculable, *does not mean at all* that they are not *predictable*. On one hand, it is true to say that in the case of a nuclear plant explosion, we do not know where the toxic cloud and the possible radioactive rains will arrive, nor which spatial and temporal entities the effects on animals, vegetations and humans will have. On the other hand, though, it is also true that this does not imply we cannot *predict* they will be *terrible*. Which leads Beck to his proposition to stop, to avoid the conditions of risk, as well as to act *upstream* and not *downstream* in the chain of actions. Regarding such a point, Beck writes:

In the management of civilization risks, we are thus provided with basically *two options*: the suppression of causes in primary industrialization, or the secondary industrialization of consequences and symptoms on an expanding market. Until today, we have almost always chosen the *second* way. [...] the fact that modernization is itself at the origin of what menaces it, is obscured by punctual observation and the treatment of symptoms. The example of the treatment of civilization diseases, such as diabetes, cancer, cardiovascular disorders, is a good illustration. We could fight these disturbs where they are born: by fighting illnesses linked to work, intoxications linked to environment, or by adopting a healthy lifestyle and a complete alimentation. (*Ibidem*; p. 388).

The German sociologist claims that the reason why we prefer the treatment of symptoms than the intervention on the causes is double. On one side, the fact that sciences between them are separated, as well as sciences and politics are opposed. This reciprocal incommunicability impedes any interdisciplinary and organic solution of problems. On the other side, the economic interest is rather in the cure of the disease than in its prevention: chemical wastes pollute underground waters, so we need to add purifying substances in the water we drink, but an excess of them harms even more, so we end up getting medicines to cure ourselves (see *ibidem*; p. 393). Chemical industry earns at least three times from this perverse process.¹¹

Here is Beck's synthesis:

If we do not want to accept any longer the secondary effects, the scientifico-technique evolution [...] has to show a great *learning capability*. This supposes that we prevent the evolution which used to create *irreversible solutions*. At the same time, we have to discover and elaborate some variables of scientifico-technique evolution that leave room to errors and rectifications. (*Ibidem*; p. 390).

In the first proposition, Beck invites to act upstream and not downstream, including the possibility of not acting at all in the name of the precautionary principle. In the second one, we can see a parallel to Morin's corrective strategy. We have decided to put Beck next to

¹¹ This leads us to philosophical and political considerations, on one side, on the nature of GDB, which grows when diseases, environmental pollution, disasters, accidents grow, and on the other on the values and on which type of richness we want. From where the propositions for other, less perverse means to measure human development, such as HDI – Human Development Index (see http://en.wikipedia.org/wiki/Human_Development_Index) –, as well as for other systems of values, such as the one proposed by the movements for degrowth.

the French thinker, because he is one of the first to speak clearly about the precautionary principle and the upstream action. But even if he does not develop the topic that deeply, Morin is not blind to neither the two things; for example, regarding the latter one, he writes: «the enormous health expenses would be reduced, if we treated deeply the civilization problems of our society. Thereby the pedestrianization of downtowns, the construction of car parks at their peripheries, in short the humanization of cities could reduce the health budgets» (Morin, 2011; p. 180). Nevertheless, a point that remains more or less implicit in both the authors¹² is a deep critic to the ideology of growth and development, as it has been done by growth objectors.

Now, it is mainly to reinforce the argumentation in favor of the precautionary principle that we would like to do a eulogy of inaction. It will be inspired to a different conception of the world compared to the one conceived by capitalism and progressive left. Following Levidow (2001; p. 845-846), who in turn cites Wynne (1992; p. 120), it is not only the scientific incertitude what influences the application of the precautionary principle, but also and mainly the values linked to it. It is in fact they which determine the limits and the nature of incertitude. The incertitude is not only an objective lack of knowledge, and facts are not only interpretable by values – they both are *molded* by values. By consequence, if values are implied in the genesis itself of scientific facts, we can thus comprehend the reason why the precautionary principle is applied each time with different nuances, depending on the country, the problem and the time. For this reason, Wynne (*Ibidem*; p. 118-119) distinguishes between incertitude and indetermination. While the former one refers to insufficient scientific knowledge, and thus pushes for more research, the latter one introduces in the analysis also the contingent social behavior. It is to say that the scientific incertitude is contextual: it influences the decisional sphere, in the same way as (or less than) it is influenced by the decisional sphere – which is loaded by a legislation, a culture, a set of values, considerations, interests, know-how and contingent traditions. Through Wynne's words: «By way of illustration, an industrial process generating more or less the same waste streams may present markedly different downstream environmental risks in the USA and the UK, because of significant differences in the regulatory cultures of these two countries» (*Ibidem*; p. 118).

Now, as Serge Latouche (2004; p. 28) writes,

The implicit or explicit content of development is economic growth, the accumulation of capital with all the positive and negative effects that we know: pitiless competition, growth without limits to inequalities, relentless spoliation of nature. Now, this hardcore that all kinds of development have in common with that experience is linked to some «values» such as progress, universalism, control of nature, quantifiante rationality.

If we decolonize our imaginary from developmental, economic and progressive myths, as Latouche suggests us to do in the text we have just mentioned and in others (see also Roustang, 2006); more generally, if we accomplish a change of values, culture and world vision in society, we would be able then to change our approach to action, and to consider outdated most of the problems and debates about the precautionary principle. The point

¹² Morin develops it much more in his *La Voie* (Morin, 2011).

would not be any longer that of distinguishing between a weak and a strong version of this principle (Sunstein, 2010), nor that of saving politics from being hostage of scientific uncertainty (Plaud, 2010; p. 6), nor on the contrary that of bordering the loss of science autonomy vis-à-vis political decisions (*Ibidem*).

Once we realize that natural resources are limited, the infinite growth of GDB is logically impossible and that a society based on consumerism and work leads to social, psychological and humanitarian troubles, then a degrowth society would have less need of a paradigm where action is an unquestionable value. If on one hand we need an ecology of action, which brings to wager and strategy, and enriched by the precautionary principle and the research of upstream solutions, on the other hand we have to diminish this pragmatism at all costs, as well as every mania to build, add, increase. These are a product of a thought of expansion and exploitation that characterizes the contemporary global economic system. In other words, the fundamental point that could render useless a good part of the numerous controversies and aporias about the precautionary principle, is that they raise on the basis of a certain economic ideology and a certain set of values that we consider obvious. Such as the imperatives of economic growth, material progress, trade expansion, or the inexorable increase of entrepreneurship. If the French State Council can write that «The precautionary principle, to be viable, has to be understood and applied in a reasonable and realistic way, and conceived as an action principle rather than an abstention or inaction one» (Conseil d'Etat, France, 2005; p. 338), it is because the incontestable underpinning ideology is that of an incessant accumulation. The possibility of stabilization, of controlled and intelligent recession, of reutilization and development of what already exists or of what is lack of monetary value, is not a contemplated way. «Calculation ignores not only non-monetary activities like domestic productions and/or of subsistence, mutual services, common goods utilization, in a word the costless part of our existence, but also and especially everything that cannot be calculated or measured: joy, love, sorrow, dignity, that is the tissue itself of our lives» (Morin, 2011; p. 25). Until calculation is the universal language, action shall be protected at all costs and will deserve more attention than health, environmental conservation or relational goods.¹³ If inversely we switch to an economy of degrowth, while saving at the same time a cultural and human growth, as Morin¹⁴ suggests, the principal question would no longer be whether, how and when to act – but *why*.

Discussion and synthesis

The ecology of action is composed by two principles that provide us with a consciousness of the way every kind of system works. Consequently, we can infer a scheme of conduct for our practical decisions. By claiming that we do not have to draw from the ecology of action an invitation to inaction and to stasis, Morin sets up a scheme made by wager and strategy. While maintaining them, we have tried to specify the only

¹³ «By this expression I mean that particular kind of “goods” that we cannot enjoy in isolation, but only in relation between who offers and who demands, as for example the services to people (care, well-being, assistance), but also cultural, artistic and spiritual-religious services. [...] It is [...] a plea for attention, care, knowledge, participation, new freedom and spiritual spaces» (Bonaïuti, 2002).

¹⁴ For example, here: «the fixed idea of growth should be substituted by an ensemble of several kinds of growth, several kinds of degrowth, and several kinds of stabilization» (Morin, 2011; p. 24).

cases when they should be applicable; at the same time, our aim was to complexify Morin's scheme with the precautionary principle, the upstream action – as discussed by Beck – and a eulogy of inaction in the socio-ethic-economic-philosophical frame of degrowth – as presented by Latouche and others.

What follows is a synthesis of four points that will form a scheme of action in the light of ecology of action and degrowth values:

- 1) *Downstream action*. This is an approach that can have two forms, a) a corrective and weak one, so that it can divert the action in course by following it step by step, or rather b) a curative and heavy one, as it is when we administer medicines to cure diseases due to the several chemical poisonings which we are daily exposed to. In the case of a natural catastrophe, or of a world war, or other critical and more or less “inevitable” situations, we must act. The means for such eventualities are the wager and the strategy, as described by Morin.
- 2) *Upstream action and prevention principle*.¹⁵ After having detected the sources – of course complex and often non-obvious – of a problem, we should apply a principle and an approach of economy and logics. Instead of choosing “additive” solutions, which sum up to the effects that we would like to eliminate and that risk to generate even more negative effects, we should work on the upstream elimination of the problem, on its source. The cure of effects, while it increases enterprises' profits and GDB, is often a way to conceal the symptoms, which risks to worsen the problem itself. At the same time, silencing the symptom in fact makes us poorer: from a strictly economic and material point of view, spending more public money increases GDB, but causes the raise of taxes too and implies a waste of materials, as well as of time and human labor energy; from an “immaterial” point of view, we become more tired, stressed, sad, worried, terrorized. What is complex, here, is not only the comprehension of the sources of a problem, but also the ways to solve it. These need several instruments, often cultural rather than material, and on the long run. Now, until healing diseases is more remunerative than preventing them, the upstream action will be more or less intentionally neglected. A society of degrowth is a must also for those who care about their own health and their sons and daughters' rather than about GDB growth.
- 3) *The precautionary principle*. The precautionary principle, which is at the same time a general political principle and an approach to action, has permeated every sector of society, from the medical to the working and entrepreneurial one, turning into an evident and general rule, at least officially (see Stasi, 2005). France is moreover one of the few countries which introduced it in its juridical system, with Barnier Law of 1995. The counter-argument to this principle, rather made against the excess of preoccupation shown by public or users, is that the zero risk status is not achievable. It would imply stopping production, not going out from home, and even this would not be enough: we should stay still therein. Following Bourg & Schlegel (2001; p. 123), the precautionary principle does not impede the technical progress, but it opposes to the ideology of progress, which is characterized by the faith in the power

¹⁵ «When the risk in question is possible but uncertain, we talk about a precautionary principle. When it is possible and ascertained, we talk about a prevention principle» (Plaud, 2010; p. 2).

of sciences to solve someday the problems they themselves have been creating. In this paper we have tried to focus on another ideological aspect which forms the imaginary of modern capitalist societies, next to the idea of progress: growth. Our discussion is indeed not only critical vis-à-vis these sectors where the principle is not at all or not enough put into practice (the situation has changed little since Beck's book); it is neither limited to demanding more research before taking any decision. Our discourse is rather aimed to an analysis of motivations, interests and values that lie on the ground of the actions we pursue. In a society based on infinite economic growth, it is evident that stasis is seen as mortal. If everybody can easily agree with considering absurd the zero risk objective, what is nonetheless disputable are the reasons for which we decide to take certain risks: every year thousands of new chemical products are put on the market, of these just a small part have been tested in laboratory to study its repercussions on humans. Why this bulimic rapidity of production, which puts at risk the health of millions of people, if not to guarantee to multinationals more and more profits? (Besides, do we have to remind that the precautionary principle does not always imply inaction? In the case of Bovine Spongiform Encephalopathy, we had to act suddenly, by retiring from the market the infected meat; when we have to decide whether to build a barrage in a place susceptible of causing earthquakes, we'd better halt in front of the doubt instead of putting at risk a city and hundreds or thousands of lives [see Bourg & Schlegel, 2001]). In the end, the precautionary principle, as it is described here, is very near to the abstention proposition supported by Jonas (1979), with the difference that we do not undersign the philosophical premises of his argumentation, founded on a strictly vetero-testamentary idea of the human being. We rather agree with the postmodernist vision by Latouche, who claims that we have to «associate with imagination some elements of modernity to survivals of tradition. We believe that it is time to radically acknowledge the pluralism of our world and that we have to engage in a vast process of cultural regeneration with the conviction that there are no universal criteria to conduct it» (Latouche, 2004; pp. 103-104).

- 4) *Inaction*. A eulogy of inaction has to be accompanied by a cultural discussion about values. To produce more and more, to become materially richer and richer, to “develop” unceasingly: for how long can they still be our goals? The abovementioned case of toads, that of DDT or that of GMOs which were supposed to produce better and more, give us three different examples of perverted actions compared to their goals. The toads introduced in Australia are the example of an action with a null result, and collateral undesirable effects on systems external to those where the introduction was made. DDT is what Gregory Bateson (1972) has called the failure of a blind application *ad hoc*. As in the case of farmers with *Bufo marinus*, the aim was that of increasing the food farming production and profits. You employ DDT to kill pests, but you also kill the animals which feed on insects. These start increasing again, and you need more DDT. Then your dogs die too, so you need to spend even for the police protection against burglars. Similarly, GMOs do not produce better nor more, and carry on a series of disastrous consequences for farmers, who remain embedded in the web of pesticides and brevets on seeds owned by multinationals. The principle of inaction is not complicated: instead of

building new eco-cities (as in China or in Saudi Arabia), it would be more logical to work on the ancient ones to reduce wastes and to replace pollutant energetic resources with renewable ones; instead of spending enormous quantities of public and private money into research for a nuclear fusion reactor, it would be more convenient to find the means to get buildings and existing electrical networks more efficient, in order to reduce the losses along the way; moreover, better than an ecological car is no car (take the bicycle, the subway or walk); better than recycling is reutilization and the suppression of any source of production of waste. Particularly, in the case of household-waste sorting, we calculate even too well the energetic and economic costs of recycling. The most efficient, sure and economic manner to avoid pollution, as well as the exploitation of materials, is acting on the source by eliminating double and triple packaging and by spreading milk on tap and by reutilizing the same containers several times. It is in this sense that the movements of degrowth, of voluntary simplicity, and Zero Waste project¹⁶ go towards. Beck clearly affirms that science does not have to be only a voice for action, but also an obstacle to it: «Sciences cannot any longer stand firm on their original position of “*taboos wreckers*”; they also have to assume the contrary role of “*taboos builders*”» (*Ibidem*; p. 345).

Conclusions

With the ecology of action, Morin lays some bases to comprehend why a situation can be risked and how to try to find a solution. The strategy and the wager are necessary and constitute the best instruments that we possess to begin and pursue our actions. But to invoke them abstractly risks to justify detrimental or superfluous actions. The precautionary principle or the upstream action are often more logic, ethic, efficient, economic and reliable choices, when applicable. It is banal and obvious to say that we'd rather grant a privilege to these approaches, instead of using human society in its entirety as a big laboratory, or instead of adding effects to effects, risking chemical bioaccumulation in bodies and nature, with the unique “positive” consequence of making some people earn at the expenses of others. It is slightly less banal, though, to say that what helps us here is the whole of values of degrowth, towards which the wager, the strategy and the risks they carry on are but the last choice to use when facing irreversible processes. It is equally clear that for us the meaning of inaction does not have anything conservative nor nihilist in it. It does not invite activists to stay home. Action is necessary so that new projects are started up. It is also an invitation to treasure passed experiences, like that of toads in Australia, of DDT, or more dramatically of world wars, and Bhopal or Chernobyl catastrophes. Nowadays, many of the most risky actions have predictable detrimental effects, even though not calculable. For the future, in similar situations it would be preferable to avoid wagers and to favor the inaction since the beginning,¹⁷ in a context inspired to economic degrowth and to the growth of other less tangible aspects of human life.

¹⁶ <http://www.zerowasteurope.eu/>.

¹⁷ In the case of nuclear plants, especially in a country like France, where the 78% of electric energy comes from them, it is not possible to propose inaction right away. In fact, the risk of a nuclear catastrophe is lower than that of a civil war that a sudden stop of nuclear production would trigger. In such occasion, we should execute a plan of nuclear exit, as soon as possible but gradually, by means of a global and synergic strategy

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spread over dozens of years. Which gives us a new nuance of inaction modality, that is a goal to reach in retrospect on the long run through an upstream action.

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