

Economic rationality, ecological rationality and the orientation issue

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It is not contrary to reason to prefer the
destruction of the whole world to the
scratching of my finger.

– David Hume, *A Treatise of Human Nature*

Introduction

What new judgment (*krisis*) does the ecological crisis bring to economics? That the earth is not a space of available resources, but that it is made up of a web of multiple interactions, which geophysicists call the "critical zone". This new representation radically challenges the modern conception of the economic agent, which was previously assumed to be distinct from its environment and that nothing was forcing him to act on it. With the ecological crisis, every agent appears to be inserted into an environment, which he modifies in an irreversible way without even having decided to do so. This changes in depth, *cosmologically*, so to speak, the way in which economics can represent the agent and the optimal action. In other words, it is rationality itself that is modified. We would like to develop here some aspects of this new rationality, which we call "ecological rationality". By this we mean a rationality that takes the measure of ecological knowledge, that is, of the agent's "insertion" into an environment. Our aim is not to scientifically deduce a rationality from observed behaviors, but to formulate a just rationality, adapted to new knowledge; it has a normative aim and comes under the heading of "practical" economics, in the Aristotelian sense of a good or virtuous economy.

All rationality refers to an order or a law. "Rationality is said of the intelligence of an actor when he conforms to a law and offers himself to the view of a spectator"¹ (Berthoud 1994). These two criteria are necessary to speak of rationality. The idea of rationality is not specific to economics: it is at the foundation of the world representation and thought, and is a Greek heritage. What is specific to economics (and this since the ancient conceptions) is *use*. Use is what follows from the earthly condition, which induces necessities or constraints for man. These necessities force one to represent the world not simply theoretically, but from the point of view of a *use of the world*. It follows that, in a very general sense, what is economically rational is that which is consistent with a good use of the world. Use is inseparable from the idea of instrumental rationality: indeed, as soon as there is necessity, it requires an instrumentation of what is necessary, whether it be men or things.

Modern economic thought, however, has gradually made a number of important corrections to this conception, which have finally led to its almost complete overthrow. Because it wanted to discard any idea of transcendental good, it first evacuated the spectator. Only the agent remained, whose moral questioning was reduced to the pursuit of his interests. It then decomposed the world into a set of objects called "goods", which could be transposed onto markets, in order to move from an essentially servile economy to an economy built on freedom. The challenge here was to get rid of both material and moral constraints. It was a matter of finding the way to an "obvious and simple system of natural liberty," as Adam Smith said (1902, vol. 2, book IV, chapter 9). These

¹ We translated from French.

rectifications led to the instrumental rationalism of neoclassical economics, in which individuals are reduced to perfectly predictable "pleasure machines" (Edgeworth 1881), without language or judgment. For neoclassical economics, economic rationality is then equivalent to instrumental rationality, which has a precise meaning: it is defined as the conformation to a given end of scarce means with alternative uses, according to Robbins' famous definition (Robbins 1932, 23).

If we look closely, the image that emerges from the neoclassical representation finally appears to be quite distant from the idea of use, in particular as it could be found in ancient conceptions². It is rather a new ontological condition for man that is implicitly described. It consists of isolated and self-transparent individuals, who naturally give in to inclinations of which they are not even aware. One may wonder whether, in this conception, there is still a *world* to speak of – there is reason to doubt it. In a sense, it is this world that the ecological crisis resurfaces: it takes the agent out of his illusory, un-earthly isolation.

New order, new rationality

Since a world resurfaces, the rational agent – because he is rational – seeks to discern its order, in order to conform his action to it. This has long been the ambition of scientific ecology and ecological economics: to describe "eco-systems", to understand their functioning, in order to harmonize human systems with them and thus guarantee their sustainability. This hope was however disappointed by the discovery, at the end of the last century, of the prevalence of chaotic dynamics in living systems. System ecology, which assumed coherent, integrated and predictable entities based on thermodynamic equilibrium, had to progressively give way to a much more reductionist ecology, in which ecological entities have a much more fortuitous and transitory organization. With the "post-odumian" turn (Worster 1994), there is no longer, strictly speaking, an *eco-system* in the strong sense, from which one could univocally deduce the measured action at all scales. The possibilities of a functionalist description appear dangerously slight, because regularities are much rarer than hoped. The ecological world is ultimately heterogeneous and evolving: there is no such thing as a "balance of nature", finally (Simberloff 2014). While certain thresholds or critical points are empirically identifiable, the ecological world remains largely indeterminate. Moreover, its evolution appears to be historically inseparable from human action, whose imprint is taken on the scale of earth (Palumbi 2001). As a result, it is becoming less and less possible to clearly distinguish human systems from other living systems. The situation is, on the whole, one of co-evolution, i. e. mutual co-change. This is called the Anthropocene. It means that the ecological world will be (at least in part) what humans make of it – whether they like it or not.

How then can we act rationally, in such a context? The absence of ecological balance deprives us of reference points, and therefore of criteria³. There is no ecological order on which to base an assured ecological rationality. The idea, defended by ecological economics, that we will find guidance *from outside*, i. e. from the biophysical sciences, remains precarious. What French economist O. Godard (2004) calls the "hetero-referentiality" of ecological economics (one could say the heteronomy) cannot have the last word⁴. In terms of system dynamics, human systems and their environment follow an irreversible dynamic of reciprocal co-alteration that rules out the possibility of a "stationary economy", as Daly (1993) might have hoped. Of course, ecological urgency gives a sort

² In his preface to French translation of H. Arendt's *The Human Condition* (Calmann-Lévy), Paul Ricoeur reminds us that utilitarianism aims to erase the distinction between use and consumption.

³ Worster (1990): "The lessons of the new ecology [...] are not at all clear. [...] What is there to love or preserve in a universe of chaos? How are people supposed to behave in such a universe? If such is the kind of place we inhabit, why not go ahead with all our private ambitions, free of any fear that we may be doing special damage? What, after all, does the phrase "environmental damage" mean in a world of so much natural chaos?"

⁴ "Hetero-referentiality" is in contrast to the "self-referentiality" of neoclassical economics, which takes the economic agent and his preferences as sole objective reality.

of "objective" importance to certain thresholds, but these are negative criteria, which leave the question of general orientation unanswered. It also leaves open the question of the relationship between scales of action (between the "local" and the "global"). In our view, it is unlikely that catastrophism or the "heuristics of fear" can provide the basis for a new rationality (one might say a new *classical* rationality), even if they can help its emergence. In a sense, the ecological catastrophe exempts us from deepening our reflection: by providing us with simple red lines, it exempts us from formulating a nuanced and perennial ecological rationality.

Generally speaking, the agent's new ecological situation has the consequence of considerably reducing the possibilities of controlling the consequences of the action. From the point of view of rational choice theory, we can say that uncertainty reaches here a new level of difficulty. The agent finds himself placed in a hierarchical, diffuse and changing environment, on which his action *or inaction* has implications, but which he can only know to a small extent. He is thus forced to pay continuous attention to what surrounds him, and must guard against any generality. (This continuous, intimate attention he has to pay has a name, somewhat forgotten by economics: to *inhabit*.) For ecological rationality, the watchword becomes therefore: *caution*, as much from the point of view of the universe representation (necessarily local and partial) as from that of the action itself. The latter must be careful not to engage in paths that are possibly dead-end. This is the purpose of the precautionary principle⁵.

Economic rationality vs. ecological rationality

As the domain of what is *interdependent* increases, the field of necessity and use also increases. Second-order and third-order consequences appear, which the agent must also consider. Use passes from the simple use of objects (or means) to the use of a network of causalities. It is the purpose of ecological engineering to explore the causalities that underlie the ecological world (causalities that are improperly called "ecosystem services") in order to find bearing points for action. However, as we have seen, this network of causalities remains uncertain and indeterminate.

Consequently, the mode of action is forced to change. It cannot simply be the *modelling* of the world based on an ideal model (which is what the traditional engineer – the designer of machines, who knows perfectly well the laws of the matter he is working on – does). It can only be a cautious modification of the forces at work, monitoring the collateral effects and resisting the temptation of total control. This is what French philosophers C. Larrère and R. Larrère (2015) call the shift from *making* to *piloting*. These modes of action are very different: while the former aims to emancipate from the context to base itself on a universal model, the latter pays full attention to the context, conversely. The *making* assumes that it is universality that guarantees efficiency; conversely, *piloting* assumes that it is through peculiarity that one becomes efficient. One of the important consequences of piloting is that, unlike making, it is not generalizable. It assumes that there are no ready-made solutions. It follows that piloting requires humility, because mistakes are inevitable – as well as perseverance, to go beyond. (This will be the subject of the next section).

Ecological rationality, of which piloting is the operating mode, is therefore a local, specific rationality. The patterns it produces in one place are not necessarily applicable in another. But an important question remains: what the agent (or the pilot) is confronted with – a tree, for example – is it new, or identical to something already seen? Is it the same, or different? In other words: how can we judge the degree of peculiarity of the context, given that total peculiarity would mean the impossibility of saying anything about it – namely, it would mean the end of rationality? One way of presenting this problem is to consider that there is always a dilemma between ecological

⁵ Another important consequence of such a context of general interdependence is that the action of others is making a comeback: it's the great return of politics, which modern economics had pushed aside.

rationality and economic rationality. Here, we define economic rationality as a *search for equivalence*, while ecological rationality would be a *search for peculiarity*. Economic rationality aims to decontextualize, while ecological rationality contextualizes. Economic rationality seeks to see to what extent an object can be extracted from a peculiar context (e.g., that tree in that forest) in order to be compared and reintegrated in a productive system (e.g., wood resource in a shipyard). Conversely, ecological rationality seeks to understand what makes this object (this tree), in its situation, a peculiar thing. (Note that the logic of equivalence in economic rationality stems directly from its definition, which divides the world into means: for a given end, means are always equivalent.)

This dilemma between economic and ecological rationality is inevitable and endless, and must be resolved. How can it be resolved? Through use. It is because the agent has needs that have a certain urgency that he will decide to ignore peculiarities, and consider that there is equivalence in relation to his needs. All he has to do then is to monitor the consequences of his decision. By acting as if certain things were equivalent, his action will inevitably lead to unexpected effects (which are linked to certain supposedly insignificant peculiarities). The agent or pilot must bear in mind that what he deems equivalent *is not* in reality: he must therefore remain attentive to the consequences⁶. He must bear in mind that his representation, built on a system of identities, is just that: a reduction of a world in which peculiarity remains.

This is where a danger arises for the pilot: a danger perhaps more perilous than over-approximation, which is unavoidable but can be overcome. This danger would be to place too much trust in the abstractions of his system, i.e. to forget that equivalences are not "natural", but assumed. This is what we might call 'equivalence fetishism', taking up the idea formulated by T. W. Adorno and M. Horkheimer in *Dialectic of Enlightenment* (2002). The two philosophers had pointed out that, at the root of Reason, there was a process of identification that was reducing the world into identities (or equivalences). In their view, this identification process was now threatening Reason itself, since the work of Reason could only continue where differences are still perceived. Reason can therefore self-destruct where equivalences predominate. Another way of putting it would be: where identification is total, there is nothing left to discern. Today, it is economic reasoning that has taken over this task of identification – notably in the field of ecology. And we may well wonder whether concepts like ecosystem services or carbon equivalents could not be forms of 'fetishism', i.e. abusive assumption of equivalences. One can ask: how to escape this danger?

Rationality and desire

This brings us to a delicate and fundamental point. It's the question of what *moves* rationality, of what makes it effective. Rationality, i.e. the mind's treatment of reality, doesn't just happen. It doesn't operate passively, like colours coming naturally to the retina, but requires an impulse towards the object, whose meaning it actively seeks to discern. So, the question is: where does the impetus that drives the agent towards the object come from? And in our case, what makes the agent or pilot persevere in his exploration of the ecological world, and not settle for hasty equivalences? What drives him to remain attentive to his surroundings, to detect variations in his environment? We think it is *desire*. It is desire – which is always the desire for *knowledge*, essentially – that makes rationality effective. The condition of rationality is that there remains a primordial curiosity about reality, a desire to grasp its meaning. The point that seems crucial to us, and that we would like to emphasize here, is that rationality is not self-sufficient, but depends on a desire that is not internal to rationality⁷.

⁶ He must take care not to miss the "repercussion of the effect on its antecedent cause", to use French philosopher François Dagognet's expression (1990).

‘Equivalence fetishism’ is precisely the expression of a rationality closed in on itself, devoid of desire. Desire is what opens us up to otherness and keeps rationality alive. This is what Byung-Chul Han (2017) means, it seems to us, when he states (p. 43): "*without eros, logos is deteriorating into data-driven calculation, which is incapable of reckoning the event, the incalculable.*" Without desire, rationality becomes an empty form whose sole purpose is to extend the field of identities. Sooner or later, it can only fail to grasp anything. Another way of putting it is that equivalence entails indifference to the world. The ‘equivalence fetishism’ can be understood as a kind of bewitchment by reason, which produces a disposition of indifference towards reality. What can save the agent or pilot from such a pitfall is the *desire for reality* (the desire for true knowledge of reality, as opposed to the pleasure of abstraction). This desire presupposes a primordial acquiescence to the real, a welcoming of the given before any work of negation⁸. We believe that rationality depends fundamentally on this initial acquiescence or acceptance.

So, there is a fundamental incompleteness – one might say dependence or ‘openness’ – of rationality. Rationality depends on a desire that sets it in motion. In fact, this incompleteness is also the incompleteness of the economy. Just as rationality is not self-sufficient, the economy is not self-sufficient but depends on a desire that is external to it. It is precisely this ‘openness’ that made H. Arendt wonder, in *The Human Condition* (1958), "what utility could possibly be useful for". We need an end for the means, a destination for the pilot, a reason for the world to be preserved and renewed. This ‘ontological’ dependence of the economy (and economics, consequently) prevents it from any form of autonomy. Economics will never have the last word. Yet economic thinking is regularly tempted to do so. Its mistake is most often to believe that *needs* are sufficient for its theoretical elaborations. For most economists, needs are the firm ground, the objective foundation on which they can build. This is an attempt at autonomy. Through needs, the discipline hopes to close in on itself and produce a coherent system. However, it is misguided by doing so, because it confuses needs with desires. The difference between needs and desires is that the former are self-evident, while the latter are uncertain. Needs are unquestionable, which is precisely why they can be easily integrated into economic thinking. Desire, on the other hand, is inseparable from *a constant questioning of the meaning of desire*. With regard to the object, it asks whether it is desirable or not; with regard to the world, whether it is a good thing that must be preserved or not. The answer to this question is never definitive, which is why economics cannot close in on itself. To put it another way: it is the essence of economics to be turned towards the future, however there is no need for future, only a possible desire for it.

In our view, late modernity is characterized by a weakened desire⁹. What we can fear then, is that this weakened desire will not allow rationality to rise to new ecological challenges. The reign of quantification in contemporary sciences may be a sign of this weakening. By abandoning theoretical work and relying entirely on quantification (what Adorno called ‘empirico-positivism’), science suggests that it has locked itself into a process of identification that has no other purpose than its own infinite repetition, through the accumulation of ‘data’. This absence of purpose signals an absence of desire, i. e. a sort of disregard to reality. In the same way, the reign of economics as a form, what is called ‘economism’, signals such a weakening of desire: when desire is strong, the means follow, but they are not an end in themselves.

⁷ Adorno (1997, p. 54): "For the aim of all rationality – the quintessence of the means for dominating nature – would have to be something other than means, hence something not rational."

⁸ "Before any cosmic act of reform, we must have a cosmic oath of allegiance", G. K. Chesterton said.

⁹ This assertion, which may seem radical, could be corroborated by many theorists of Modern Times, including Hartmut Rosa, Peter Sloterdijk, Bernard Stiegler, or phenomenologists like Jean-Luc Marion, Michel Henry... We will try one day to make a more exhaustive list. The first to have formulated this idea with great force is, of course, F. Nietzsche.

One can make the assumption that this weakening of desire is due to the process of *satisfying needs*, which is now deployed on an industrial scale. The systematic satisfaction of needs in the consumer society, which is in reality a reduction of desire to satisfiable needs, leads to an inevitable drop in libidinal tension, a ‘discharge’, to use P. Sloterdijk's expression (2013). It creates a state of apathy, of incuriosity towards the world, which then appears uninteresting and devoid of novelty. This apathy is a major threat to capitalism itself; it is well aware of this, and finds itself obliged to deploy considerable means to renew desire on which its survival depends. (We know that annual advertising expenditures now stand at over \$1,000 billion worldwide). This is what B. Stiegler (2011) means when he points out that capitalism is forced to counter the ‘synchronization’ it produces with ‘diachronization’, to recreate desire. Consumer society is a society of enjoyment, which is the opposite of a society of desire. Enjoyment inevitably leads to a collapse of desire. From the point of view of the ecological crisis, this poses a considerable issue: preserving the earth requires the desire for it to be preserved – preserved, in particular, beyond our own personal existence.

But where does desire come from, and how does it sustain itself? The question may seem irrelevant, but we believe that, ultimately, on this question depends the deployment of a forceful ecological rationality, which will enable us to re-inhabit the earth. More generally, the question of the origin of desire is also, in our view, a question of the first order for the future of economic thought.

Of course, this is a problem of considerable difficulty. We would like to sketch out just two avenues here. These two avenues are both based on the idea that desire does not come from ourselves; it is, in one way or another, received. In the first case, it is received horizontally, and in the second, vertically. The first (horizontal) avenue can be stated as follows: “we desire what others desire”. This very general proposition has been addressed by many authors, from Jean-Jacques Rousseau and Adam Smith to René Girard (1987) and Jean Baudrillard (1998), not forgetting Alexis de Tocqueville. These authors have all proposed different variants of a *mimetic theory* of desire, where desire is aroused by the group to which the individual belongs. What is desired may be the object, or the privileges associated with the object. Jean Baudrillard, for example, explained contemporary consumerism as the product of a quest for social distinction in an egalitarian context.

The second (vertical) avenue can be stated as follows: “We desire what is held to be desirable”. At first glance, this second explanation may resemble the first, but it differs in that it involves a *designation*. What is desired, in this case, is *stated* as such. In so doing, it comes under the purview of language and culture. Its usual forms are authority and tradition, whose purpose is precisely to designate and remind to men of what is desirable. We can sum up the two possible origins of desire by saying that in the first case (horizontal), desire is *communicated*, and in the second case (vertical), it is *transmitted*¹⁰.

Production and engendering

While both ways of desire ‘contagion’ are possible, the horizontal way is only possible for a given community. It follows that the only way to maintain desire beyond the renewal of communities is vertical. Ultimately, it is vertically, through transmission, that desire can be given and received. Yet modernity essentially represents a breakdown in transmission. The question then arises as to whether this rupture has not led to a rupture in desire. In a 2019 article, Bruno Latour spoke of “Issues with Engendering”. He highlights the increasingly obvious inability of modern societies to perpetuate themselves, i. e. to create a future for themselves. His diagnosis is comparable to the

¹⁰ What about Freud? It seems that Freudianism lies at the crossroads of the two explanations. The Oedipal triangle of Father - Mother - Child is an example of horizontal imitation, while the authoritative relationship between the Father and the Child is the archetypal vertical relationship.

analyses of P. Sloterdijk (2014), for whom Modern Times are essentially an "anti-genealogical" process, in which mimicry, improvisation and iteration have replaced generation. H. Arendt (1961) and G. Steiner (1971) had a similar intuition. All these authors show in their own way that the modern principle of *disruption* – what Latour (2018) calls the ‘modernization front’ – goes hand in hand with a risk of disorientation, because for human beings, desire is like meaning: it can only be transmitted. If this transmission doesn't take place, all that is left is the mimicry of the second avenue, which is devoid of meaning. But precisely what we desire is meaning: desire is first and foremost a desire for *signification*. In retrospect, this may explain, in our view, the weakening of desire in late modernity.

In his article, B. Latour invites us to move from a logic of ‘production’ to a logic of ‘engendering’. By production, Latour means, it seems to us, something akin to the logic of *needs*, which modern economics has long thought capable of creating a new world, *ex nihilo*. Today, however, we see that it is quite incapable of doing so, that exhaustion threatens, and that it is rather the world that, slowly but surely, is heading towards nothingness. Needs – or what is taken to be needs – multiply infinitely, turning the economy into an immense mimetic machine of destruction. The alternative, engendering, is – as we interpret it – no longer a question of needs, but of *desire*. It would involve restoring a form of continuity, to rediscover possible sources of desire (i.e., sources of meaning) from which modernity has cut us off. We might hope that once desire is restored, so too will the future. Unlike production, which consists of a *projection* by force in front of oneself and from any given position, engendering takes place where past and future touch, and is as much about *receiving* as it is about *creating*. Whereas production has no reason other than present ‘needs’, engendering first receives a world, with its meaning. We believe it is this meaning that will be decisive to find enough willpower to engage in ‘ecologization’.

The economic agent can refine his rationality to better grasp variations in his environment, but his action ultimately depends on his will to achieve his goal. There can be no rationality without knowledge of one's ends. This is true of all forms of rationality, and all the more so of ecological rationality, which will not spare the pilot from errors and unforeseen events. To move forward in "the land of a thousand folds", as Latour (2018) puts it (that is how he describes ‘Gaïa’), the pilot needs a firm desire to reach his destination – one that will enable him to avoid the blind evolution in which Modern Times seem to be caught. And may a pilot have another destination than *home*? What other goal he may have than to find, like Ulysses, the way back to the home he has received and whose name he has not forgotten – after the tumultuous expedition of production?

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