### The ontology of ecology

The nature of life is a terrible dilemma for those involved in finding a philosophical basis for an ontological Ecology. Living beings need to appropriate other living beings in order to survive. Life is fierce competition for food from the very beginning. Survival always involves the annihilation of other living beings.

Whitehead noticed this predicament in PR, in his chapter on the order of nature. For Whitehead, a living society always requires food. Living societies always destroy other living entities in order to get their sustenance.

“Thus, all societies require interplay with their environment; and in the case of living societies this interplay takes the form of robbery. The living society may, or may not, be a higher type of organism than the food it disintegrates. But whether or not it is for the general good, life is robbery. It is at this point that with life morals become acute. The robber requires justification.” (PR 105 [160])

In this way, whenever we seek an ontological ethics or an ontological ecology, we cannot ignore this embarrassing starting point from which all our thoughts will stem.

According to Whitehead all actual entities have the same ontological dignity; “though there are gradations of importance, and diversities of function, yet in the principles which actuality exemplifies all are on the same level.” (PR 18 [27]) This can lead us to another idea: that every being has some kind of intrinsic worth, even if its importance is highly diminished. Intrinsic worth comes from the very fact of existence. Whatever comes into being has attained its own existence and, as such, has some inherent worth for having attained this condition of existence. Attainment is of extreme ontological relevance and it brings value into play: “valuation is a necessary metaphysical function. Apart from it, there could be no definite determination of limitation required for attainment.” (RM [159])

Now the passage from lifelessness to life is indeed a very tricky philosophical issue. Whitehead considers we can no longer conceive nature at an instant in abstraction from real duration. Matter conceived as self-sufficient, needing nothing but itself in order to exist and occupying a simple location i.e. being just there where it is (MT 139) is no longer an acceptable premise. “In all discussions of nature we must remember the differences of scale, and in particular the differences of time-span.” (MT 141) This is what process philosophy is about. “All realization involves implication in the creative advance.” (MT 146) If we consider nature in abstraction from life, we are holding on to old habits of thought and denying life its true status. Positivism and its fragmented views of the world have erased the notions of connection and relationship from the scientific worldview, emptying life of its living character and of its durational nature. Dualism is at the root of this problem; dualism leaves out relationship and connection as it severs matter from spirit and body from soul. We tend to think of nature as detached from ourselves, as something that we observe and command. If we considered ourselves as part of nature, our views of the world would be absolutely different. We would envisage beings as self-creating and we would know they are the outcome of the creative advance. We would consider human beings in a deep symbiotic relationship with their environment. We would consider every being’s way of enduring and its rhythm of being, its time-span and how it differed from human time-spans. We would consider a universal time into which every particular durational being would fit harmoniously. We would reject what Whitehead calls the bifurcation of nature: “unless we produce the all-embracing relations, we are faced with a bifurcated nature”. (CN 32)

Whitehead holds that life emerges from self-enjoyment, which is the result of self-creation thus allowing for the creative advance. A new individual emerges from “ a complex process of appropriating into a unity of existence the many data presented as relevant by the physical process of nature.” (MT 150) These are what Whitehead calls *occasions of experience*. (MT 151) So life is the appropriation of antecedent data in order to obtain a self-creating individual capable of self-enjoyment. Self-creation, self-enjoyment and aim as “directive of process” (MT 152) are characteristics of life. But science finds no aim or creativity in nature, only regular successions. And thus science is described by Whitehead as “ vacuous bits of matter with no internal values, and merely hurrying through space.” (MT 158) Purpose thus is an important element in reality. The world is made of relationships that overlap and intermingle. Boundaries are mostly indeterminate.

It is hard to find a frontier between the human body and its surrounding environment; it needs its environment in order to exist and it can be very difficult to distinguish the molecules that are in the body and those that exit it or those that enter it from different sources such as the air, food, water, etc. Whitehead finds that efficient causation thus misses its importance. Causation has to be founded on immanence. Then, life can emerge as “the enjoyment of emotion, derived from the past and aimed at the future.” (MT 167)

Whitehead’s theory of immanence resonates through all his works. This is very relevant because it shows value inheres in life. In RM, Whitehead alludes to the omnipresence of God through immanence. He quotes the “Sayings of Christ”: “Cleave the wood, and I am there” (RM [74]). The attainment of value in the world in some way reflects the immanence of God. Value inheres in every actuality. (RM [100]) Value is thus present in every act of self-creation. Self-attainment is value or self-value; “the actuality is the enjoyment, and this enjoyment is the experiencing of value.” (RM [100]) Value is thus immanent in every creature and every creature has value. And value results from the process of self-creation and ultimately from the creative purpose that underlies the world. This creative purpose is a clear illustration of a world that exhibits a certain order. (RM [99]) In some way, there is an order in the world that is harmonious and permits the emergence of the world. There is an order in nature from which the actual world is drawn. Order ultimately results from the immanence of God in the world. (RM [104-105])

“The order of the world is no accident. There is nothing actual which could be actual without some measure of order.” (RM [119]) The order of nature can be described as “a wisdom in the nature of things” (RM [143]) from which value emerges. Value is its own justification and it justifies the coming into being of all creatures. They all have the same ontological dignity because they all have value, although value can differ in importance and intensity: “valuation is a necessary metaphysical function.” (RM [159]) The subjective aim gives actual occasions some direction for their becoming but their constitutive process is always in harmony with their own nature. Life can be described as the confluence of self-creation, self-enjoyment and subjective aim. All these three characters come together to put in place a living being endowed with ontological dignity because of its creation of self-attainment.

The term order is also applied to the relationships of all the members that constitute what Whitehead calls a ‘society’. (PR 89 [136]) A society is “self-sustaining” and “it is its own reason”. (PR 89 [137]) It is not the mere sum of its members; there is a social character that gives it a special relevance and a particular character. Now, “in a society, the members can only exist by reason of the laws which dominate the society, and the laws only come into being by reason of the analogous characters of the members of the society. […]

The arbitrary, as it were ‘given’, elements in the laws of nature warn us that we are in a special cosmic epoch. Here the phrase ‘cosmic epoch’ is used to mean that widest society of actual occasions whose immediate relevance to ourselves is traceable.” (PR 91 [139]) Whitehead goes on to describe the electron and electromagnetism. But the importance of societies retains its social character.

The order of nature and the resulting laws of nature can thus lead us to consider natural law. As we have seen, Whitehead takes the word ‘society’ to use it in an ontological sense. In this way, we may wonder if a social law and a natural law are of the same nature. As Bergson says in the beginning of *The Two Sources of Morality and Religion,* physical laws may appear as compulsory, whereas a breach of law may look to be *contra naturam*. (TSMR 12-13) Social order may look like mirroring natural order. Natural law would then be embedded in the order of nature. But Bergson is drawing our attention to the psychological aspect of the way we envisage law.

On the other hand, Whitehead takes a sociological concept such as ‘society’ to build up an ontological notion. He is actually generalizing the idea of a society to everything else. He is using it as the basis for an ontology, and as the founding structure of reality, which would have a social character no matter what its provenance could be. Higher organisms would take up the form of societies. And lower forms of existence like cells would also take up the build-up of a ‘society’ as the basis for their way of existing and coming into being. They would be affected by this social order and also by its ontological character. Everything comes into being in accordance with its own nature, i.e. its subjective aim. In short, every existing being is in accordance with the order of nature. And the order of nature seems to be of a social kind.

It is not surprising that this kind of order issuing from nature might be considered as a foundation for a new concept of natural law. Whitehead did not refer to natural law as such but he did consider the idea of the order of nature.

This order of nature can be seen as the ultimate rationality. According to Whitehead, actual entities come into being through the control of the ‘subjective aim’, which is able to bring purpose into the world as a kind of catalyst of the process of self-creation of actual entities. (PR 25 [37]) “Actual entities are the final real things of which the world is made up. There is no going behind actual entities to find anything more real.” (PR 18 [27-28]) Actual entities are thus the final reasons beyond which there is nothing. Their becoming is in accordance with the order of nature and hence with an ontological system that works as the foundation of reality. This ontological system consists mainly in recognising and revealing the intrinsic value of every creature in the world. Thus a natural order and a natural law emerge.

Let’s consider the concept of natural law from an historic perspective.

Aristotle identifies two kinds of laws: particular law and universal law. “Particular law is that which each community lays down and applies to its own members. […] Universal law is the law of nature.” (Rhetoric, 1373b) He goes on to show how Sophocles’ *Antigona* illustrates the importance of the law of nature by contrast with the law of men. The law of nature is the just law, whereas the laws of men are often unjust.

Thomas Aquinas argues that natural law follows on human nature. Human reason can grasp what is good and what is evil. But all things desire the good. That is the first principle of natural law. “For there is in man a first inclination to a good of the nature he shares with all substances, insofar as each substance seeks the preservation of the existence it has according to its own nature, and following this inclination the things by which the life of man is preserved and the contrary prevented pertain to natural law.” (Summa Theologica, I-2, 94) Human beings have also other “natural” inclinations, some that they share with animals such as procreation and taking care of the young, some that result from human reason such as living in society or knowing about God.

Whitehead’s idea of the order of nature is thus in line with these traditional concepts of natural law but it supersedes them. In recognising intrinsic value in every existing thing, Whitehead points to a new ontological ethics and opens up a new path for ontological natural law. The order of nature presupposes a subjective aim in every entity that comes into existence. The subjective aim follows and realizes the order of nature. It conducts the emerging being in the process of becoming according to its own nature. It allows for creativity and self-constitution but it keeps the evolving entity within the boundaries of its own nature reflecting the order of nature.

Actual entities are the final real things, because they are capable of self-creation and constitute themselves in accordance with their subjective aim that integrates them in the order of nature. There is no going back, no going beyond actual entities. “No actual entity can rise beyond what the actual world as a datum from its standpoint – *its* actual world – allows it to be.” (PR 83 [127]) Actual entities become and perish as new actual entities come into being. Their natural order is this process of coming into being and perishing, and then becoming objectively immortal. Perishing comes through a process of apprehension of each actual entity that has attained satisfaction, by other new actual entities that have meanwhile initiated their processes of becoming. “Completion is the perishing of immediacy: ‘It never really is.’” (PR 85 [130]) The succession of novel entities that prehend previous ones is endless and creates the very order of nature. The actual world is the only limit to what an actual entity can actually become in accordance with its own creative process; the guiding force of process is the subjective aim. Each actual entity creates itself and in so doing creates its own intrinsic value in as far as it has value for itself. But this process of self-creation and self-valuation is also a process that finds value in other individuals and in the actual world. The process of self-creation is a process of appropriation of other actual entities that have already attained satisfaction. It is also a process that values the actual world. But it is also a limited process because no actual entity can become in such a way that it infringes what its actual world “allows it to be”.

The world is thus a “realm of adjusted values, mutually intensifying or mutually destructive.” (RM [59]) Individual value is only attainable within this world context and in relation to it. This attainment of individual value in the world is what Whitehead calls world loyalty. “There is a rightness attained or missed, with more or less completeness of attainment or omission.” (RM [61])

There is a “revelation of character” which is “inherent in the nature of things”. “It is a character of permanent rightness.” (Id.)

This permanent rightness inherent in the nature of things might be called a natural law that can be unveiled as we perceive and build up an ontology of nature. World loyalty is also an empathy and coincidence with the order of nature and with its rightness. It is the capacity to intuit this rightness, which can lead us to recognise that nature has its own course, which is rightly the natural course of things.

As we recognise we are in nature and nature is in us, we also recognise the rightness inherent in the nature of things. As we distance ourselves from nature and follow the path of dualism, world loyalty fades away and time loses its existential facet. Our societies have taken up this very path. We have chosen dualism and fragmentation and we have repeatedly refused to acknowledge the order of nature and its inherent character of rightness. We have overlooked the intrinsic value of every existing thing and we have relied on specialism refusing to accept the infrangible wholeness of our world. We have risen above this ontological revelation of things, so that we can rule over other beings and our planet. The rightness inherent in the nature of things has been missed. We have placed ourselves above and beyond God.

Our legal positivistic systems are thus in line with these ontological choices. They are firmly based on a fragmented worldview; they welcome all kinds of dualisms and work on a yes or no logic; they disregard intrinsic value promoting speculative profit and the commodification of every aspect of our lives; and finally they promote specialism in order to reject any unifying frame of reference that might bring some integrity into the system.

Legal positivism is entrenched in our societies and in our culture. Modern legal systems must satisfy the demands of formal law. In continental law countries, enforcing the rule of law calls for positive law. Natural law is thus only relevant in the theoretical discussion on justice and in philosophy of law. We cannot call on natural law to derogate from positive law. Unjust laws are still laws and have thus to be enforced. Their unjustness does not revoke their legitimacy.

Legal positivism also means that what is omitted in the law, especially in criminal law, cannot be brought into the legal game in the name of justice. This may mean that many offences against the integrity of our living planet and against the integrity of living species, or even against human integrity cannot even be acknowledged, let alone have a judgement passed upon them.

The work of an environmental barrister who passed away recently, Polly Higgins sheds light on this issue. She proposed a new international crime, ecocide, which should be included under the Statute of Rome of the International Criminal Court, along side with genocide, crimes against humanity, war crimes and the crime of aggression. Harm against the earth and living species is not currently identified as unlawful. It is often carried out in the name of development and legitimate profit. However, it is a duty of any state to act on the behalf of a community that is being harmed. All over the world, our ecosystems are certainly being harmed by the relentless plundering of natural resources, the intensive use of polluting forms of energy and the imposition of hybrid monocultures that feed on questionable genetic engineering and dangerous pesticides leading to soil degradation and food insecurity. Ecocide is a new type of crime that is missing in our criminal legal systems. The creation of this new type of crime would enable government and corporate officials to be held accountable individually for ecocide and climate breakdown. Ecocide is an efficient way to reduce the damage caused on the natural world that has created the planetary crisis we are going through. We do not need to discuss if non-human beings can be the holders of rights or legal personhood, so that law can protect their ecological integrity.

We can, on the other hand, circumvent useless environmental law that does not criminalize the actions of individuals and corporations who harm the earth living eco-systems, charging them instead with some tax that supposedly erases their ecological crimes. Environmental law has become in many instances a way to legitimise criminal activity against the environment, through the imposition of environmental taxes that allow that highly damaging polluting activities buy credits to redeem their dirty projects.

Civil aviation is a mild example of such an instance. The possibility of offsetting the carbon footprint is indeed very conscience relieving for those who irresponsibly jet themselves around the world in the pursuit of futile self-indulgence.

Criminalizing environmental harm through ecocide might also overcome ISDS agreements (investor-state dispute settlement mechanisms), which threaten the sovereignty of nation states. These agreements enable big corporations to avoid national courts. They use arbitration to sue governments whose environmental or social policies may affect their investment, usually claiming huge compensation for investment losses. If corporate executives and government officials could be criminally liable for the damage they do to ecosystems, ISDS clauses would surely become a lesser problem.

If we are to succeed in saving our planet it seems that Whiteheadian persuasion will not be enough. Luring people into a simple, harmonious, nature-like lifestyle will only work with very few of us. As we rapidly approach human mass extinction, we will have to come to terms with new ways of implementing survival policies. We will have to outlaw highly polluting activities and highly intensive energy production. The criminalization of harmful activities against our living planet and its living species will emerge as the only realistic option if Life is to succeed. This destructive action against Mother Earth has been up to now shielded under the banner of development. By creating the crime of ecocide and thus protecting nature from violent and criminal plundering, we would also be recognising the intrinsic value of things and giving them the legal protection that we owe to them.

In so doing, we can once more have recourse to Whitehead’s theory. Actual entities become in accordance with their own creative process; they are guided by the subjective aim. Each actual entity is self-constitutive and thus creates its own intrinsic value. Self-creation and self-valuation find value in other individuals and in the actual world. But this is also a process of appropriation of other actual entities. And the process of appropriation must be carried out within the limits determined by the order of nature. It is a process of value adjustment, which can lead to a mutual intensification of values or to their mutual destruction. Value is only attainable within the world value context. In this process, rightness and completeness can be achieved but they can also be missed or destroyed. “The nature of evil is that the characters of things are mutually obstructive.” (PR 340 [517]) In our societies and in our economic systems, the rightness “inherent in the nature of things” has been excluded from a vast majority of human endeavours. Intrinsic value is no longer considered. The value of things is merely speculative. Commodification has changed our lives forever. We no longer respect the self-immanent purpose of things, their subjective aim or their particular, temporal, existential identity. They no longer become in accordance with their own nature. We have no need for a coherent physical environment that respects natural rhythms. We no longer recognise the inherent value in things. Fragmentation favours value obliteration.

Commodification has suppressed intrinsic value, integrity, and temporality. Only commercial value or financial, speculative gains are relevant. Intrinsic worth and the value of things acquired through the passage of time and maturation are not taken into account. Endless growth is the key concept governing our economies. It is fuelled by endless consumption of goods and services. It is based on self-indulgence and on an arrogant sense of entitlement that takes for granted the endless exploitation of natural resources. Endless growth leads directly to endlessly growing, huge debt and economic crises. But economic turbulence always ends up being resolved by governments with endless creation of *fiat* money. *Fiat* money itself has no intrinsic value and has no temporal frame. Negative interest rates and cashless transactions have become the norm. They concur to enable the possibility of erasing time and maturing processes from the economy, celebrating ecological destruction and value effacement. Everything is turned into a financial asset or commodity with no durational reference, so that it can be traded on the stock exchange. So it seems the real economy has simply become irrelevant and useless.

The growth-consumer society feeds on the plundering of nature, on its fragmentation, destruction and degradation and produces huge quantities of waste that equally devastate nature. It bases itself on a flawed ideology that contradicts nature in its very essence by rejecting its intrinsic value and temporal character. It is a self-destructive society that ignores its suicidal activities. Consumption and growth are ultimately huge obstacles to survival.

Growth has often been replaced by green growth leading to even more consumption. The production of green energy did not bring about a decrease in the consumption of energy. Green energy was added to the existing energy production from fossil fuels, thus increasing significantly what is often called the ‘growing demand’ for energy consumption. No efforts towards an ecological civilization will achieve lasting significance if our present society is simply green washed and replaced by a society that keeps being driven by market forces, growth, profit, and consumption. Most green initiatives are hardly aware of this problem. As a rule, they keep the long ingrained mentality of growth/consumption, which they adapt to a green lifestyle version. For example, we will keep using up the same amount of energy if it is carbon free, or we will keep driving every day as long as we drive an electric car powered by a lithium battery.

The infringement of the rightness “inherent in the nature of things” has thus become a commonplace occurrence, a kind of respectable social behaviour, and even a scientific fact. In our fragmented societies, things reveal themselves as “mutually obstructive”. They shape themselves in the light of evil. And evil thus becomes a banality and the very basis of social organization.

Ignorance, arrogant stupidity and the pursuit of profit and economic growth are often indicated as the reasons for environmental destruction. They may be considered “minor” flaws in our societies that would in some way excuse many decades of human destruction of our planet. Every one of us is somehow involved in this planetary destruction and profiting from it in some way. The banality of it all would redeem the whole humanity from any wrongdoing against nature. And maybe technology and huge sums of money could fix it all some day.

However, the harm that has been done cannot be erased. It has been incorporated into reality, into our world, into ourselves. This constitution of the world and of our beings is irrevocable. Our world was erected on *contra naturam* foundations.

We are now faced with pure evil. Pure evil emerges against the very nature of things. This “ontological evil” (*méchanceté ontologique*), as Vladimir Jankélévitch called it, is “the most diabolic and the most gratuitous that history has known”[[1]](#footnote--1). It is the metaphysical crime that cannot be erased by the passage of time. It is a crime that cannot be forgiven or forgotten because it denies the very essence of nature. It is an imprescriptible crime. There is no pardon or possible punishment for these metaphysical crimes. Pure evil is gratuitous; it cannot be explained solely through the usual motivations such as wicked stupidity, sheer greed, plain self-interest, or desperate hunger for money and power. Pure evil can be said to be placed beyond current human wickedness.

Imprescriptible crimes are often perpetrated against humanity, but they can also be crimes against nature. Ecocide should be included amongst metaphysical crimes. The usual human greed and lust for money and power is not enough to explain the suicidal plundering and destruction of planet earth. Irrevocable harm caused to planet earth cannot be reversed or compensated with vast sums of money. Indelible harm cannot be erased once it has occurred. Ecocide includes and surpasses genocide on a global scale. The horrors of destruction and mass killing are carried out against different forms of life.

The immanence of value is an important character of reality. It exemplifies the order of nature and it sets the foundations for an ontology of ecology. This order issuing from nature may in turn be considered a foundation for natural law. Survival may require recourse to natural laws, which is another name for the order of nature. When we consider survival, life can be seen as robbery but even when survival is at stake, ontological ethical principles come into play to guarantee that the rightness inherent in the order of things prevails. Food comes from the outside, from the environment but it acquires a different structure as it enters the body it is sustaining. Life acts as a catalyst in this process. The laws of nature develop together with societies so that they remain within the limits of our world and in harmony with world loyalty. (PR 106 [162])

Diverting from the path of world loyalty leads us to a rejection of the order of nature that naturally implies interrelated obstructiveness. Ontological evil supersedes sheer obstructiveness and becomes indelible. Metaphysical crimes such as ecocide cannot be erased once they have occurred. Evil thus emerges causing delays and obstacles in our way. These obstacles may be insurmountable. If Life is to succeed on our planet we must stop the destructive action against Mother Earth. We must have recourse to natural law to protect nature from violent and criminal plundering, recognising the intrinsic value of things and giving them the legal protection that we owe to them, thus acknowledging that metaphysical crimes are indelible and cannot be taken away by lapse of time.

1. […] le produit de la méchanceté pure et de la méchanceté *ontologique*, de la méchanceté la plus diabolique et la plus gratuite que l’histoire ait connue. » *L’ imprescriptible*, p.25. [↑](#footnote-ref--1)