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Full Movement Beyond Control and Environmental Governance: Taking Silent Risk Seriously¹

Movimiento completo más allá del control y la gobernanza ambiental: tomar riesgo silencioso en serio

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Abstract: This article inputs into a research project on the law’s approach to geophysical phenomena of full movement – full movement that is produced by man but which man is unable to control. The concept of full movement beyond control can be illustrated in several domains. The more specific areas of environmental protection and sustainable development highlight two significant examples: the movement of greenhouse gas and the movement of waste. The hypothesis proposed here is that there exists a silent risk of full movement beyond control. Even as a discernible and potentially measurable phenomenon, the risk of full and beyond control is commonly denied or underestimated. Its treatment is generally based on the illusion that, since it is man who created the movement, he will always have the ability to regain control of it. This flawed approach to the risk explains many of the difficulties encountered in environmental governance matters, particularly in the area of sustainable development and especially when such difficulties motivate the rule of law. Using the idea of silent risk may also be useful for granting full movement beyond control the transversal and inclusive place it warrants.

Resumen: Este artículo se inserta en un proyecto de investigación sobre el enfoque de la ley para los fenómenos geofísicos del movimiento completo: movimiento completo producido por el hombre pero que el hombre no puede controlar. El concepto de movimiento completo más allá del control se puede ilustrar en varios dominios. Las áreas más específicas de protección ambiental y desarrollo sostenible destacan dos ejemplos significativos: el movimiento de gases de efecto invernadero y el movimiento de residuos. La hipótesis propuesta aquí es que existe un riesgo silencioso de un movimiento completo más allá del control. Incluso como un fenómeno perceptible y potencialmente medible, el riesgo de un control total y más allá del control se niega o se subestima. Su tratamiento generalmente se basa en la ilusión de que, dado que es el hombre el

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que creó el movimiento, siempre tendrá la capacidad de recuperar su control. Este enfoque defectuoso del riesgo explica muchas de las dificultades encontradas en asuntos de gobernanza ambiental, particularmente en el área del desarrollo sostenible y especialmente cuando tales dificultades motivan el estado de derecho. El uso de la idea de riesgo silencioso también puede ser útil para otorgar un movimiento completo más allá del control del lugar transversal e inclusivo que garantiza.

Key Words: Silent Risk - Full Movement - Lost of Control - Greenhouse Gas - Waste - Carbon Tax - Climate Change Policy

Palabras Claves: Riesgo silencioso - Movimiento completo - Pérdida de control - Gases de efecto invernadero - Residuos - Impuesto al carbono - Política de cambio climático

This article inputs into the IFITIS³ research project on the law's approach to geophysical phenomena of full movement – full movement that is produced by man but which man is unable to control. The concept of full movement beyond control can be illustrated in several domains (data, capital, and migrants). The more specific areas of environmental protection and sustainable development highlight two significant examples: the movement of greenhouse gas and the movement of waste. The hypothesis proposed here is that there exists a silent risk of full movement beyond control. Even as a discernible and potentially measurable phenomenon, the risk of full and beyond control is commonly denied or underestimated. Its treatment is generally based on the illusion that, since it is man who created the movement, he will always have the ability to regain control of it. This flawed approach to the risk explains many of the difficulties encountered in environmental governance matters, particularly in the area of sustainable development and especially when such difficulties motivate the rule of law. Using the idea of silent risk may also be useful for granting full movement beyond control the transversal and inclusive place it warrants.

I. The theory of full movement beyond control

Human activity has profoundly changed movement circulation. In the beginning, such movement was closely dependent on the natural environment; winds, sea and river currents, the

³ Project supported by the *Institut universitaire de France* (2016-2021): <http://www.universitates.eu/jsberge/?p=21027>

movement of materials and of living organisms. Today, the situation is totally different. Movement flows are becoming more closely linked to human action, for example the large-scale transportation of goods and persons by road, railway, sea, river and air, the mass production of new goods for circulation (greenhouse gas, waste), the rapid dematerialisation of flows (data, money).

To a greater extent than natural movement that man has tried to channel with relative success, movement produced by human activity gives an illusion of control. As it is created by man, the widely-shared feeling is that if man stops his activity, he will also stop the movement. A great many mechanisms have been built around this idea of control. The circulation of waste, data, capital and naturally of persons - man must be able to maintain tight control over everything.

This idea of control is illusory and we will explore how it is undermined by the existence of silent risk⁴. The operators involved (States, businesses, individuals in particular) are increasingly overwhelmed by movement circulation that they themselves have caused.

We can also propose the hypothesis that situations of full movement beyond control exist:

- Movement: persons (individuals and legal entities), goods (tangible or intangible) move by man's action within territories and between different territories;
- Full: the movement of persons and goods has a "full" dimension in that it engages the attention and action of all public and private operators (States, businesses, citizens) in defined contexts at local, national or international level, who contribute to the phenomenon in whole or in part, voluntarily or involuntarily;
- Beyond control: movement has an "uncontrollable" dimension in the sense that in specific or temporary situations, like those of crisis, operators, and particularly those with responsibility for such movement, do not have full control over it; this movement beyond control also generates its positive and negative, legal and illegal channels within its own sphere, making it impossible for the operators to work together to contain it.

These situations where movement produced by man causes a snowballing effect and therefore escapes the control of all operators on an increasingly frequent basis, can be explained by what physicists have named "the technosphere"⁵. This term describes all of the mechanisms

⁴ See *below*, para. IV.

⁵ See, *inter alia*, abundant literature on this theme: HAFF Peter, K. (2014): "Technology as a geological phenomenon: Implications for human well-being", Geological Society London Special Publications, 395(1): pp. 301-309 ; ZALASIEWICZ Jan and other (2017): "Scale and diversity of the physical technosphere: A geological

produced by man's technology since the beginning of humanity. It includes the intertwined systems of communication, transport, the exploitation of raw materials, energy production, industrial transformation, modern agriculture and administration. This technology has left its mark throughout the ages and researchers have even suggested that its effect can be quantified in several tens of thousands of billions of tonnes on earth.

For supporters of this hypothesis, which is still a subject of scientific discussion, these technologies form a whole - a sphere - which threatens the balance of the biosphere that presided over the emergence of life on earth. These reflections on the dawn of a new technological sphere bring into sharp focus the hypothesis of movement that is produced by man but which he is then unable to control. If all the material and constructions produced by man's technology since the beginning of humanity form a whole, one must infer that man is flooded in this new environment and completely overwhelmed by it. Technologies that man has invented have gained a foothold over him without him being able to revert back in time. Man has lost control of the technosphere. Once this technosphere has been created, like the biosphere, from a multitude of interaction, i.e. movement circulation, we can safely infer that we subsequently lose control over such movement.

II. The first illustration: greenhouse gas

Greenhouse gas is an important example of this loss of control. Human activity produces gas emissions which, once released into the atmosphere, escape man's control. These gases move and accumulate around the whole planet, it being impossible for the one who released the gas to retrieve it. All the parties involved can do is wait (a very long time) for the gas to disperse and try to reduce past and future emissions. Even on this latter point, the operators' action is extremely restricted. It is not enough for a country, company or an individual to promote itself as an example in terms of reducing or retrieving emissions. All operators must mobilise themselves in such a way if we want man's action to produce the overall desired effects.

From this, we can assume that full movement beyond control exists, which naturally raises the issue of its governance. In the area of climate change in particular, this assumption would champion the need for a new global space for discussion and negotiation based on the loss of control.

perspective", *The Anthropocene Review*, Volume: 4 issue: 1: pp. 9-22 ; ORLOV Dimitry (2016): *Shrinking the Technosphere: Getting a Grip on Technologies That Limit Our Autonomy, Self-Sufficiency and Freedom* (Gabriola Island, New Society Publishers) 267 pp.

III. The second illustration: waste

Waste and movement form an indivisible whole. For there to be waste, there needs to be an act of defection, i.e. a relinquishment. The waste is the thing we are getting rid of, voluntarily or involuntarily. There is a presumption of creating distance: either the owner of an item who leaves it in one place and then departs or the item that is transported to another place to be left there.

The movement of waste takes extremely varied forms. The issue of controlling the flow of waste is raised on a recurrent basis. The questions of whether the movement of waste can be permitted or banned, the reversible nature of this process and its traceability have become essential in our societies that are dominated by the technosphere. The movement of waste can be seen in both accidental and organised scenarios.

One example of an accident is the sinking of the Erika in 1999 just off the Brittany coast in France. This event gave rise to large-scale legal battles. The issue of waste was raised in the numerous discussions fed by this complex situation involving multiple parties. It was resolved by considering that the hydrocarbons accidentally spilled into the sea following the shipwreck, mixed with water and sediment that drifted along the coast, constituted waste. The person responsible for this waste was the producer, in this case, Total⁶.

The organisation of chains is also significant in this domain. For example, the recycling of domestic waste or electronic equipment requires complex structures potentially involving many parties. These parties may also be located in different territories and be operating legally or illegally. Waste movement has substantial effects. It allows partitioning defined by regulatory frameworks to be made porous.

The waste alternates between one status and another. Certain status comply with the law and, for example, enable operators to receive public aid. Other status are illegal and enable, sometimes the same operators, to escape restrictions on the reprocessing of waste and the storage of residues, which could be extremely costly.

⁶ *Commune de Mesquer v. Total* (2008), European Court of Justice (GC), case C-188/07 ((Directive 75/442/EEC — Waste management — Concept of waste — Polluter pays principle — Holder — Previous holders — Producer of the product from which the waste came — Hydrocarbons and heavy fuel oil — Shipwreck — International Convention on Civil Liability for Oil Pollution Damage — International Oil Pollution Compensation Fund), European Court Reports 2008 I-4501.

International society has organised itself to deal with this situation. One of the methods of intervention has been to regulate the cross-border movement of waste. Two primary mechanisms should be noted in particular.

The first took the form of an international convention, known as the “1989 Basel convention on the control of transboundary movements of hazardous waste and their disposal”. This treaty was designed around a certain number of broad principles such as reducing the production and exportation of hazardous waste, an absolute ban on exporting waste to certain destinations (for example, countries who were not party to the treaty), proximity requiring a reduction in the distance between the source of the waste and its place of disposal, the traceability of flows (places and operators), the existence of preliminary checks and the return of illegally exported waste.

The second mechanism was defined by the European Union. The reference text currently in force is a regulation from 2006⁷. The European Union put in place a control and monitoring procedure of waste shipments both within the EU and to third countries. Waste materials were categorised into different lists (green and orange) with more or less restrictive flow management depending on the degree of hazardousness of the waste.

The movement of waste took a significant legal turn with the development of what is known as environmental crime. The idea is that those responsible for causing environmental damage can be found liable under all the administrative and criminal procedures intended to punish breaches of the law.

Among the possible mechanisms was the popular idea of a very intensive form of criminalisation for causing irreparable harm to the environment, in the same way as, for example, murder or armed robbery committed as part of an organised gang. It is what is known as “ecocides”⁸.

Regardless of the existing legal mechanisms and chains organised by legal or illegal operators, we must admit that there are situations in which the movement of waste escapes the control of all operators, both public and private. In these situations, we can talk about full movement of waste beyond control.

⁷ Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste, OJ L 190, 12.7.2006, p. 1–98.

⁸ See in particular, NEYRET Laurent, ed., (2015): *Des écocrimes à l'écocide. Le droit pénal au secours de l'environnement* (Bruxelles, Bruylant) pp. 465.

Sometimes these situations are incredibly spectacular: the Fukushima catastrophe in Japan in 2011 where traces of radioactive caesium “beads” were found as far away as Tokyo, the failure of a dam in the Brazilian State of Minas Geras in 2016, which released 32,000,000 m³ of toxic mineral waste stored illegally upstream of the dam, the formation of genuinely solid plastic islands in the China Sea and in the Gulf of Mexico with a view that, on a global scale, they could represent the equivalent of a continent measuring several million km².

However, this full movement beyond control takes on more innocuous forms. On the scale of a large French city, operators allude to the fact that 10% of domestic waste processing escapes their control, either because this waste is dispersed outside of their channels, or, for example, industrial waste is introduced into their processing chain when it should not be. If we take this example and transfer it to a megapolis in a developing country, the percentage of waste moving beyond control is far higher.

These exceptional or more normal circumstances raise questions. If we are sceptical or fatalistic, we might suggest they do not profoundly alter the way we see things. However, the reality totally contradicts this way of thinking. If we consider the mass of waste moving world-wide and in the atmosphere and if we consider the things we daily throw into our dustbins that we should not, it is not difficult to understand that man is in a permanent state of being unable to control the flow of materials he produces and discards every day.

Overall, we are overwhelmed by the phenomenon. This observation profoundly alters the evaluation grids. It forces us to rethink our governance tools in an environment where we have fully lost control.

IV. Full movement beyond control as a hypothesis of silent risk

The phenomena of full movement beyond control are unquestionably risk-bearers. In the general context of movement produced by man, the hypothesis that man has fully lost control of the movement, transfers and flows he causes undoubtedly creates uncertainty as is characterised by all risks. It is impossible to determine in advance how and when this type of scenario will occur. Even if not all cases of full movement beyond control are harmful and even if all do not require action, particularly those that fall within the law, the fact remains that it is very difficult to predict them with certainty.

However, these risks are never addressed. Although they can be observed and, to a certain extent, measured, their existence is all too easily denied. They are the silent risks⁹.

Why do not talk about our inability to control movement that we ourselves have initiated?

The explanation lies undoubtedly in understanding why we find ourselves in the unbelievable situation where, for their own particular reasons, the operators in question believe it is in their interest or can justify doing anything but talk about the hypothesis of full movement beyond control.

White-collar workers i.e. the leaders of large public, private, national, regional and multinational organisations are unable to admit publicly that they are powerless to control the flow of movement.

Mafia groups, whose profits are largely made up from exploiting these flows of movement, operating short or long, visible or non-visible, legal or illegal channels, do not communicate across the entire operation and therefore fail to control all of the elements.

People never like to believe the worst. The idea that they can be overwhelmed by an environment to whose development they contribute by their trivial day-to-day acts, is completely intimidating. They do not want to hear talk on full movement beyond control, preferring to listen to the non-threatening albeit totally untrue discussion that the situation is under control.

The sciences, understood in their widest sense (hard sciences, human and social sciences, basic and applied sciences), also play a part in this current state of affairs. It is difficult for a scientist to deal with things he/she has no control over as they cannot be measured.

However, the issue is not insurmountable. In precise terms, each operator can measure the portion of “escapement” within its sphere of control. Something beyond control is that which does not fall within any scope of control. In more general terms, the theory of full movement beyond control can be supported by 40 years of reflection on the existence of a new geological era - the Anthropocene¹⁰ – which follows on from the current epoch: the Holocene. Both eras are marked by movement phenomena that largely escape man’s control. A link could

⁹ On this concept of silent risk, see the special edition of the magazine RISEO (2017): <https://fr.calameo.com/books/005049066fa9bf1a01289>

¹⁰ See in particular on this theme: KOTZE Louis J., ed. (2016): *Environnemental Law and Governance for the Anthropocene* (Oregon, Bloomsbury) pp. 379.

therefore be established between this analysis and the silent issue of full movement produced by man and extending beyond his control.

V. General perspectives on treatment of the silent risk of full movement beyond control in environmental governance

To contradict the state of affairs described above, we would need to take the view that movement produced by man would be better understood if it were replaced within a global environment in which “escapement” was recognised. The idea that “everything can be controlled if we give ourselves the proper means” would be replaced by a new paradigm according to which man’s control is exercised in a global environment that escapes his control.

It would not be so much a question of imposing a new concept (transcendent approach) as providing the operators with a better understanding of a mostly silent reality (immanent approach). They would be left to be absorbed by the necessarily complex and multi-faceted phenomena of full circulation beyond control.

In short, we would need to reconsider where to begin our current analyses on movement, particularly in relation to greenhouse gas and waste. Rather than resting on the illusion that man can achieve total control, we would tackle the reality of “escapement” from the outset.

This new approach would have the effect of placing all movement circulation produced by man under the prism of risk management.

One may say that, for many of these types of movement, this is already the case.

However, we would need take our current analyses much further.

The risk in question here is not solely an occasional and visible risk caused by such and such an agent at the time of such and such transportation of waste or data. Nor are the risks necessarily subject to probabilities, tamed by statistical and accounting analyses.

The case envisaged here has a much larger and uncertain dimension: the assessment by risk management of full movement beyond control that potentially escapes all operators.

This inclusive and complete approach, undeniably encouraged by reference to silent risks and which forces us to open our eyes to an unnamed reality, could deeply upset current ideas of how to tackle the phenomenon.

As for other situations analysed by sociologists, political scientists or lawyers, this approach allows us to understand why certain phenomena are averse to traditional risk management and why we have to go beyond existing frameworks to get to grips with them.

There is also a strongly ethical aspect that challenges us to reflect on the values we intend to pursue when we decide to assess risks with a high degree of uncertainty¹¹, particularly in a geopolitical field.

Nearer to the above examples, this approach could also help in correcting certain past mistakes linked mainly to the fact that the risk in question was wrongly identified and therefore wrongly understood. We might consider the particular example of the “carbon tax” in relation to CO₂ emissions. This tool was built on dissuasive rationales. The question is whether this attempt which, like others, has largely failed, would have been more effective if it had tackled heart of the silent risk: full movement beyond control.

VI - A specific example: the opening of a new global space for discussion and negotiation on climate change based on the loss of control

Worldwide governance of climate change is based on the key concept of “control”.

The participants at annual climate conferences (COP) are guided by the feeling that their good will and the means available to them can combine to keep the increase in global temperature below certain thresholds and that the irrevocable effects of this warming can be contained using methods of adaptation. The recent proposal of a Global Pact for the Environment¹² also takes his direction.

This idea of control is largely deceptive.

If the approach taken to climate change phenomena by public and private policies have to refer to the concept of control, it is, at the same time, essential to move beyond it.

We must accept that the current upheavals evolve in an environment that is largely beyond the control of man and his abilities. From this perspective of a loss of control, there is an urgent need to create a new premise that collective action be taken in addition to existing measures. This would enable the possibilities to be literally doubled.

¹¹ On this relationship between uncertainty and the search for meaning in geopolitics, see BURGESS Peter J. (2011): *The Ethical Subject of Security - Geopolitical Reason and the Threat Against Europe* (Oxford, Routledge), pp. 238.

¹² <http://pactenvironment.org>

During discussions governing the United Nations conferences on climate change (COP), the central issue was the public and citizen-orientated policy and measures to be taken to reduce global carbon gas emissions and therefore reduce global warming to below a certain threshold (1.5° with a maximum limit fixed at 2° over a defined time horizon (2030)) and the adaptation of areas that are already threatened by the effects of these emissions, specifically by the rise of water levels.

Our proposal is to invite this type of arena to open a second major programme of discussion and negotiation in addition to, but not in substitution of, that which is already on the table. The purpose of this second programme would be to answer the following question: how can we anticipate the hypotheses where the global circulation of greenhouse gases reaches uncontrolled levels, i.e. above those that are currently expected? Such interrogation, explored in addition to the existing issues and not in replacement of them, would literally double the size of the field of discussion and therefore the scope of public, corporate and citizen-based governance. People will no longer pretend to believe that the causes and/or effects of the phenomenon can be contained. The issue of the measures to be taken faced with a phenomenon of a full and uncontrollable dimension is openly raised.

There are a many different interests in approaching the issue in terms of a loss of control. We can touch on three of the main ones.

First, the issue of an “escapement” from control would be raised from the start, i.e. very much upstream of managing crisis situations caused when the thresholds considered to be unavoidable (today, +2°) are exceeded. There is undeniable educational value in publicly highlighting the scale of issues to be dealt with in the event of uncontrollable global temperature increases.

Next, a new approach from a loss of control perspective would be understood as identifying a risk that is too often denied or down-played. In the general context of movement produced by man, the hypothesis of the full “escapement” of the resulting circulation, travel, flows, transfers he causes is undoubtedly uncertain in the same way as all risks are. It is impossible to define in detail and in advance how and when this type of scenario will occur. While it can be observed and, to a certain extent, measured, these risks are very often hidden. They are what we call “silent risks”.

Finally, exposure of this loss of control perspective would be an essential and urgent opportunity to bring to the table subjects for negotiation relating to the violence, or its equivalent, to which the planet may be subject to if thresholds are exceeded. For example, we

should now be discussing avoiding putting Draconian measures in place in the event certain thresholds are exceeded. Such measures include a global ban on the use of certain energy types or global taxation on these sources of energy in proportions that would significantly deteriorate the economic models supporting them.

These perspectives may appear completely unrealistic today. It doesn't matter. What matters is that we start talking about these extreme treatment scenarios so that the operators face their responsibilities and lay foundations for the day when policy changes will be necessary due to the imminence of future crises.
