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CONFLICTS (BETWEEN RIGHTS) IN ENVIRONMENTAL CONTEXTS¹

CONFLITOS (ENTRE DIREITOS) EM CONTEXTOS AMBIENTAIS

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*Come d'autunno si levan le foglie
l'una apresso dell'altra, fin che 'l ramo
vede alla terra tutte le sue spoglie.*

Dante Alighieri, *Divina Commedia*

Summary: 1. Introduction. 2. The Subjects of the Conflict. 2.1. A Planetary Problem. 2.2. Some Internal Conflicts. 2.3. Making the Law: Cooperative and Non-cooperative Games. 2.3.1. Cooperative (and Non-cooperative) Games and Law-making Process. 2.3.2. Non-cooperative Games and Legal Interpretation. 2.3.3. Cooperative Games and Legal Interpretation. 3. The Objects of the Conflict. 3.1. Fundamental Rights and Intra-systemic Conflicts: Some Applications of the Set Theory. 4. Intra-systemic and Extra-systemic Conflicts. 5. Conclusion.

Abstract: In my opinion, when dealing with the issue of legal conflicts – and specifically with the problem of conflicts between rights – it is important to distinguish the subjects involved in a conflict from the objects to which the conflict refers, as well as to distinguish an intra-systemic from an extra-systemic point of view. In this paper, I made an approach following these very same distinctions, with the aim of analyzing the conflicts (between rights) that occur in environmental contexts.

Keywords: conflicts, rights, environmental law, legal philosophy.

1. Universidad San Francisco de Quito. I want to thank Brian Bix, Andrés Martínez-Moscoso, and Tammy Vallejo for having read and commented on a previous version of this paper.

1. Introduction

This article has a mainly – although *not exclusively* – classificatory purpose, carried out based on conceptual analysis. My training is that of a legal philosopher. I am not an expert in environmental law. To the environmental lawyers I can only say this: *lasciate ogne speranza, voi ch'intrate*. However, I believe that an exercise such as the one I am about to undertake here can be fruitful in giving context to some persistent problems.

It is necessary to distinguish the *subjects* involved in a certain conflict from the *objects* to which a conflict refers, as well as the *intra-systemic* point of view from the *extra-systemic* point of view regarding such conflicts (see Maldonado-Muñoz M, 2021). That is an analytical approach that one must consider useful to classify and distinguish different conflicts 'for' and 'within' the law, an approach that it is applicable to study conflicts (specially between rights) not only in environmental contexts. Nevertheless, being generally applicable, it is also possible to study how this 'analytical model' can be used in dealing with some classificatory and explanatory problems in the field of environmental law and the broader sphere of environmental conflicts.

2. The Subjects of the Conflict

In the first part of this paragraph (2.1.-2.2.), I will intentionally not define the concept of conflict, or the various types of conflicts one can identify. The reason is that, in this part, I will focus on the heuristic identification of the 'subjects' that are usually involve in conflicts in environmental contexts (that is, scenarios in which there is a possible or actual interference on environmental goods or natural resources). In the second part of the paragraph (2.3.), I will analyze the problem from the perspective of game theory; precisely, the cooperative and non-cooperative games in which different 'players' (the subjects of the conflict) take a part in the context of the creation and application of (environmental) law.

2.1. A Planetary Problem

In the contemporary sphere, the environmental problem is considered *global* – and, therefore, with influence on *international law*. In this sense, the possible violation of the rights of individuals occurs, inevitably, beyond state borders (see Stiglitz JE, 2006: 165). This being the case, the issue we are dealing with here acquires such dimensions that it is inserted into the more general problem of *globalization*, and that it must also be seen within the scope of the *international legal order* (i.e. alluding to a community integrated *in primis* for "States as acting persons [that are] organs of international law" [Kelsen H, 2006: 351]).

Here, on a global scale, the subjects of the conflict are primarily the States.² In this scenario, the *asymmetry* that exists between the different States appears as a relevant fact. There are some States such as the United States

2. See, for a problematization of this and other aspects, Oliveira H (2020).

or China, whose levels of pollution and contribution to the problem of global warming and environmental depredation are particularly high. Their position is such that, in practice, they can create and resolve their conflicts by resorting to *extra ordinem* solutions, outside or above the international legal order. The case of the United States is obviously paradigmatic. And for this it is only necessary to remember what is well known: the United States never ratified the Kyoto Protocol (which entered into force in 2005),³ especially due to the impact that this could have had on the automobile, oil and coal industries (Stiglitz JE, 2006: 171). The most serious problem surrounding the lack of ratification of the protocol occurs because the United States is the second largest polluter on the planet. To this we must add the interests in the exploitation of natural resources of other countries that have mobilized the United States even to the invasion⁴ (i.e. a conflict resolved outside the rules of international law).⁵

The case of China is also very important, given its particular circumstances: as Piketty points out in *A Brief History of Equality* (2022), in the context of global warming it must be taken into account that China is an 'authoritarian socialism' with a particular system of production of 'hybrid capitalism', which, due to the size of the Chinese economy, makes it a problem for the environment in terms of the pollution it produces and the system that sustains it. China is the largest polluter in the world. This, added to the needs of the largest population on the planet, which has generated - among other things - that China seeks to take advantage of the natural resources of other countries. As an example, one can think of the immense Chinese fleet that has repeatedly fished in the Galapagos Sea, contributing to the predation of some endemic species and to ocean pollution.⁶ Here, too, the conflict created by one party has been 'resolved' by *extra ordinem* means, by the *de facto* force of the Chinese State.

The problem appears as a transversal one, beyond ideologies and beyond borders: a planetary problem in which the different States have a different weight in the international community. As has been said, one of the problems

3. Here I am assuming that, since the United States is second largest polluter on the planet, withdrawing from the ratification of the Kyoto Protocol reinforces its position of advantage in the international community to solve the problems surrounding climate change and environmental damage in terms that are far from the "compromise" as a characteristic form of legal peace. Bobbio N (1954: 257-258) says: "Peace and war [...] are two ways of resolving social conflicts: war through the force of the combatants themselves; peace through compromise between the parties and the attribution of force to a person other than the parties. More than a way to eliminate them, legal peace is a way to resolve them when they arise".

4. War has also been seen as generating, in certain cases, environmental conflicts over control of natural resources. See Le Billon P (2012).

5. Baviskar A (2003) says: "Iraq's invasion, while securing oil, also serves as an object lesson to impress the rest of the world with US willingness to act unilaterally-«defy us at your peril»".

6. See, e.g., Álava JJ et al. (2017): "On August 2017, a Chinese fishing fleet comprising about 300 boats (e.g., fishing, cargo and fuel boats and at least one factory ship) was detected in international waters (i.e. the high seas) and near the Economic Exclusive Zone (EEZ) of Galápagos Islands and waters off Ecuador's coast in the Southeastern Tropical Pacific. This Chinese industrial fishing fleet has thus far emerged as an immediate threat for regional marine species [6], mainly apex predators such as hammerhead sharks that migrate through a regional marine corridor in close connection to the Galápagos' sanctuary waters for breeding, feeding and refuging, located at the far north of the GMR and Galapagos Archipelago (i.e. Darwin and Wolf islands)".

of the international system is due to the asymmetry of the different States. This is, in fact, an obstacle to the achievement of a democratic international legal system. Democracy presupposes the distribution of power (Bobbio N, 1987), but, in the international sphere, community and power do not coincide. Where the community is, there is no power; where the power is, there is no community (Bobbio N, 1994). The weight of the States in the international community is different among them. To this we must add that, in the context of the international legal order, democratic States must coexist with autocratic States.⁷ Payne, in an article published in 1995 in the *Journal of Democracy (Freedom and the Environment)*, proposed the thesis – plausible in empirical terms – that democratic systems tend to protect in a better way the environment and the environmental rights.⁸ And although this tends to be the case, the problem is not solved by this alone. As has been seen, the planetary nature of the matter means that any State (democratic or not), due to its weight in the international community or due to the level of pollution it produces, may affect other States and the rights of the inhabitants of such States.

In the long term, if scientists' predictions about climate change are accurate, this could be catastrophic for future generations.⁹ As is well known, one of

7. This raises the question of whether the (non-violent) extension of democracy from democratic countries to autocratic countries is possible (see Sartori G, 1995; Bobbio N, 1994).

8. The reasons, according to Payne RA (1995: 42-52), would be the following: 1) Individual rights and the open marketplace of ideas (for instance, "the passage of environmental legislation in many democracies owed much to the successful efforts of environmentalists groups".) 2) Regime responsiveness ("Individual and group freedoms help to ensure that democratic governments remain responsive".) 3) Political learning ("democracies tend to serve as 'policy laboratories' for one another; successful innovations in one will spark imitation by others.") 4) Internationalism (allegedly, "democracies are more likely to participate in international environmental institutions and abide for international agreements.") 5) Open markets ("all democracies have had market-based economic systems; it therefore seems reasonable to consider any potential advantages of markets when assessing the 'green' characteristics of democracies".) One must consider, nonetheless, that Payne's article is from 1995. Maybe points 4 and 5 need some special revision nowadays. For instance, the case of the United States needs to be addressed from a particular point of view considering not only its democratic status, but also—and particularly—its position and weight in the international community system (the fact that the USA have never ratified the Kyoto Protocol is not comparable with any other democracy doing the same thing, considering that the U.S. is the biggest polluter in the world). In any case, on the traces of Payne's work – and, therefore, on the importance of preserving democracy for the tendential protection of the environment and environmental rights – see. Neumayer E (2002).

9. See Lyster R (2022: 513-514): "When alluding to the best available scientific evidence, a plethora of reports have been produced by the Intergovernmental Panel on Climate Change. In 2012, the (ipcc) Working Group ii (wgii) released a Special Report Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (srex). The risk of extreme events, influenced increasingly by climate change, was confirmed in the IPCC's Fifth Assessment Reports including Working Group I's Report Climate Change 2013: The Physical Science Basis, and wg II's Report Climate Change 2014: Impacts, Adaptation and Vulnerability. In 2018, the IPCC's Global Warming of 1.5°C Report (the 2018 1.5°C Report) estimated that global temperatures have already risen approximately 1.0°C above pre-industrial levels due to human activities. If this continues, global warming is likely to reach 1.5°C between 2030 and 2052 [...] The IPCC's 2019 Special Report on Climate and Land (the 2019 Land Report) states that 'climate change, including increases in frequency and intensity of extremes, has adversely impacted food security and terrestrial ecosystems as well as contributed to desertification and land degradation in many regions.' Also, '[a]t the

the main aims of the environmental conservation project is the guarantee, in broad terms, of something one may call 'principle of intergenerational freedom'.¹⁰ That is to say that future generations must enjoy a similar space of freedom to that of contemporaries,¹¹ presupposing that one of the conditions of future freedom consists of the balance of ecosystems and the conservation of some essential goods such as water and other natural resources (Ferrajoli L, 2018: 209-223).¹²

But also *private agents* can be, in the terms of this section, subjects of the conflict on an international scale. No arcana is revealed by saying that in a globalized society the weight of some private agents is very high. The power of these multinational private agents is essentially economic and, in certain cases, can compete with that of the States themselves.¹³ It has been argued that the supranational financial and economic powers could subvert state powers, putting them at their mercy and conditioning their sphere of action and their effectiveness (Ferrajoli L, 2018). As can be seen, it is also argued that there is a form of power asymmetry in this case. Bauman defines it as follows: "a new asymmetry appears between the extraterritorial nature of [economic] power and the territoriality of life as a whole" (Bauman Z, 2017: 16), which includes, of course, the environment in which that life develops. To counteract this phenomenon, Ferrajoli argues that it is necessary to

regional scale, changing land conditions can reduce or accentuate warming and affect the intensity, frequency and duration of extreme events.' Meanwhile, its 2019 Special Report on the Ocean and Cryosphere in a Changing Climate (the 2019 Ocean and Cryosphere Report) states that 'over the last decades, global warming has led to widespread shrinking of the cryosphere, with mass loss from ice sheets and glaciers [...], reductions in snow cover [...] and Arctic sea ice extent and thickness, and increased permafrost temperature, which all exacerbate extreme events [...]. At the same time, the 2019 ipbes 'Global Assessment on Biodiversity and Ecosystem Services' now warns that the decline in biodiversity is unprecedented and that unless action is taken to reduce the intensity of drivers of biodiversity loss, around 1 million species already face extinction, many within decades. More recently, 11,000 climate scientists announced that '[s]cientists have a moral obligation to clearly warn humanity of any catastrophic threat and to "tell it like it is" ... [w]e declare clearly and unequivocally that planet Earth is facing a climate emergency'. Others warned that 'more than half of the climate tipping points identified a decade ago are now "active", with immediate threats including the loss of the Amazon rainforest and the great ice sheets of Antarctica and Greenland, all of which are currently undergoing measurable and unprecedented changes much earlier than expected'.

10. According to Feinberg J (2013: 379): "whoever these human beings may turn out to be, and whatever they might reasonably be expected to be like, they will have interests that we can affect, for better or worse, right now. That much we can and do know about them. The identity of the owners of these interests is now necessarily obscure, but the fact of their interest-ownership is crystal clear, and that is all that is necessary to certify the coherence of present talk about their rights".

11. However, this is limited by the lack of certainty and the ignorance that we may have regarding the future. In other words, our ability to foresee how our current decisions may affect future generations is obviously limited. See Ekeli KS (2004).

12. As an example, see the Constitution of Ecuador: in its article 317, the Ecuadorian Constitution expressly includes a principle of 'intergenerational responsibility' related to the conservation of natural resources and the protection of the environment.

13. According to Bobbio N (2019: 416): "The power of a large multinational company challenges legitimate democratic government, not unlike the way a world power evades the deliberations of the United Nations or a decision of the Court of Justice in The Hague".

implement a system of 'constitutional limits' that can curb the impulse of these *extra ordinem* powers in the international sphere.¹⁴

2.2. Some Internal Conflicts

The States, its concessionaires, or delegates, as well as other types of private subjects, may be immersed in conflicts against individuals, groups, or communities in exclusively or predominantly national contexts. Let's see an example. The construction of the Hidrotambo Hydroelectric Power Plant in Ecuador was carried out by diverting the natural course of the Dulcepamba River. However, "the flow of the river increased during the winter, a situation that directly affected the community of San Pablo de Amalí" (Martínez-Moscoso A, Castro-Enríquez I, 2022: 1019).¹⁵ This happened even though a socio-environmental risk was identified (Martínez-Moscoso A, Castro-Enríquez I, 2022: 1019). The State, its concessionaires, or delegates (as well as other types of private subjects) can be agents of internal conflicts in environmental contexts when the provision of a service or the exploitation of natural resources may endanger certain essential goods associated with environmental conservation. The problem becomes more complex if we consider that Ecuador included *Nature* itself as a 'holder of fundamental rights' in its Constitution (2008),¹⁶ which implies the need to increase the protection of Nature as a whole¹⁷, but also the duty to consider Nature as a *subject* from the legal point of view.¹⁸

14. This, with the aim of protecting national democracies and the fundamental rights recognized by them; particularly the right to access a series of essential goods such as water, on which the ecological balance and the guarantee of other rights such as health or life also depend (See Ferrajoli, 2018: 209-233). I do not mean to suggest that this is the case for any multinational private agent with interests in the exploitation of any natural resource. I am limiting myself to pointing out, as in the case of asymmetrical relations between States, that this is a phenomenon that is not only conceivable but real in some relations that generate conflicts between the demands of certain economic powers and the limits of certain States to enforce their own rules against such powers, especially the guarantee of fundamental rights. The exact opposite phenomenon is obviously possible. The case of a State that, for example, within the framework of an investment treaty, fails to comply with its obligations to the detriment of the investing company. As an example, we can think of the case *OXY v. Ecuador* (ICSID).

15. Martínez-Moscoso & Castro-Enríquez, 2022, 1019. However, it should be noted that Martínez-Moscoso & Castro-Enríquez, when speaking of this case, contrast it with another Ecuadorian case, which they consider a "case of success" in the matter (the case of hydroelectric generation in the Machángara River). The case that I have brought up, obviously, is only intended to show an example of a possible socio-environmental conflict generated by the State or by its concessionaires or delegates, without intending to suggest that any case of this type necessarily leads to a conflict of these characteristics.

16. See art. 71: "Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes."

17. The Constitutional Court of Ecuador, in addition, has extended the protection also to the 'rights of animals' (see the case "Mona Estrellita"). The debate around this recognition, of course, has been the subject of substantial disagreements.

18. Nevertheless, in more than one case the effective scope of the rights of Nature recognized by the Constitution of Ecuador has been put to the test. (See, e.g., Simon F, 2019.) Among these, the best known is the oil exploitation that took place in the Yasuní National Park, in the Ishpingo-Tambococha-Tiputini area (located in the

These conflicts occur in environmental contexts in the sense that it is argued that they threaten or could threaten the preservation of some natural resources or some essential goods for the conservation of the ecological balance and for the guarantee (direct or indirect) of certain fundamental rights such as health or life. These conflicts usually pit public or private subjects against the so-called *environmental defenders*: in general, “individuals and collectives like indigenous people, peasants or fisherfolks [...], as well as environmental activists, social movements, journalists, or any other who actively defend the environment” (see Schiedel A et al, 2020). Here, the goal of preserving the environment and its resources tends to contrast with the alleged need for the rational exploitation of resources that would have the objective of helping to cover certain current social needs, including the protection of other fundamental rights. The conflict in this context arises between various demands that are posited *prima facie* as equally important. This is caused not only by the different interests and needs in competition at a given historical moment, but also by the fact that in contemporary States are generally recognized, together with a series of collective rights (including environmental rights), a series of individual rights (including the freedom of enterprise), while it is recognized the (exclusive) ownership of natural resources by the State. These resources, ideally, should serve to satisfy a series of needs, among others the protection of fundamental rights.¹⁹ In the era that Aleinikoff has called *The Age of Balancing*, however, two ways of resolving conflicts between interests are contended – almost as meta-conflicts: (i) in certain cases it is said that one interest *outweighs* another, (ii) in other cases it is said that there is a need to *striking a balance* between interests (Aleinikoff TA, 1987: 946). But, of course, beyond certain ideologies of balancing, a compromise solution (that does not leave any residue and that eliminates the disagreement between the different parties) does not always seem to be possible or desirable to achieve (see Maldonado-Muñoz M, 2021).

2.3. Making the Law: Cooperative and Non-cooperative Games

In formal terms, cooperative and non-cooperative games are at the base of ‘game theory’.²⁰ The concept of ‘cooperative game’ has its roots in the work of von Neumann & Morgenstern (1944). The concept of ‘non-cooperative game’ already appeared in the work of the famous John Nash (1951).²¹ This

Ecuadorian Amazon), an exploitation carried out even though Yasuní is one of the most important natural reserves in the world due to its biodiversity.

19. But this is, in a sense, ‘paradoxical’ (from a practical and historical point of view). See Stiglitz JE (2006), chapter 5, which is called “Lifting the resource curse.”

20. It is generally agreed that game theory – despite the existence of several interesting antecedents – begins with von Neumann & Morgenstern’s *Theory of Games and Economic Behavior* (1944). From there, further developments of the theory have spread to several fields, beyond the traditional ones (mathematics and economics), making great contributions in areas such as political science, sociology, and moral philosophy. Some examples: Braithwaite R (1995); Kuhn S (2004); Verbeek B (2002; 2008).

21. See Nash J, 1951, 286-295: “Von Neumann and Morgenstern have developed a very fruitful theory of two-person zero-sum games in their book *Theory of Games and Economic Behavior*. This book also contains a theory of n-person games of a type which we would call cooperative. This theory is based on an analysis of the interrelationships of the various coalitions which can be formed by the players of the

is the topic that I am interested in developing here. I maintain that cooperative and non-cooperative games are categories that can help to reconstruct – always in formal terms (see Bobbio N, 2007) – some relevant phenomena about the way in which our modern legal systems are constructed in conflict situations. There are conflicts ‘for’ and ‘within’ the law, but these conflicts also determine the very content of law. In that sense, I maintain that, in our modern legal orders, law tends to transform certain cooperative games into non-cooperative games. And that, in fact, sometimes this process becomes – so to speak – circular, in such a way that from certain cooperative games we pass to other non-cooperative games and, later, to new cooperative games (each with its own characteristics).

It is appropriate to explain what these concepts mean. Game theory (which is – one could say – also a kind of conflict theory (Myerson RB, 1997),²² insofar as all conflicts can be studied in terms of game theory) studies those cases of (strategic) interaction or interrelation between various individuals – generally in competition with each other – where the goal is to achieve a specific result sought by the various parties. These parties or individuals are called ‘players’ (the *subjects* of the conflict). The ‘cooperative games’ in which they intervene are cases of interrelation in which diverse *coalitions* of players participate. These are cases in which, in order to obtain a certain result (to ‘win the game’), it is necessary to make alliances and form coalitions. On the contrary, in ‘non-cooperative games’ the absence of coalitions is assumed, so that each participant acts independently, without collaboration from the other players (Nash J, 1951: 286).²³ Consequently, their strategies must be elaborated autonomously.

2.3.1. Cooperative (and Non-cooperative) Games and Law-making Process

Law-making process has as its objective the creation, modification, or extinction of legal provisions. In the national field, legislative discussion and debate are oriented, precisely, to the establishment of such provisions, to their approval or disapproval. This is, of course, fertile ground for conflicts between different values. On the other hand, in the case of the negotiation of international treaties, the interaction takes place between different States (considered as ‘individual subjects’). The environmental field, for obvious reasons, is a frequent source of conflicts in these spheres, many specifically related, directly or indirectly, to climate change. As Hunter says, “the world’s legal systems—both international and national—have never seen a challenge quite like climate change” (Hunter DB, 2007).

game. Our theory, in contradistinction, is based on the absence of coalitions in that is assumed that each participant acts independently.”

22. Myerson suggest the names ‘conflict analysis’ or ‘interactive decision theory’ instead of ‘game theory’.

23. It is worth noting that Nash himself speaks of a third category: “Two-Person Cooperative Games”. These are cases, he says, in which “two individuals whose interests are neither completely opposed nor completely coincident. The word cooperative is used because the two individuals are supposed to be able to discuss the situation and agree on a rational joint plan of action, an agreement that should be assumed to be enforceable” (Nash J, 1953: 128). This may be the case, for example, of bilateral treaties, if we assume the individual character of the States. At any rate, since it exceeds the aim of this work, I will not say no more about it here.

In general terms, the 'success' in the internal legislative debate lies in the possibility of obtaining a majority of a certain kind that is reached through the establishment of alliances and coalitions, in favor or against the approval of a legal provision or of a set of these. In this way, the different 'players' (i.e. lawmakers) with common interests seek to form coalitions with the aim of achieving such ends. These are 'conflicts over the approval of a certain legal provision'. Thus, in these conflicts different coalitions of legislators (constituent or ordinary) propose the inclusion, modification, or elimination of certain 'normative formulations', so that these become part of the provisions of a particular legal system. In other words, in terms of game theory, it can be said that these are cooperative games in which obtaining a goal depends on the formation of alliances and coalitions of players who collaborate with each other so that said objective is achieved.²⁴

The process of negotiation and approval of an international treaty can be something more complex to analyze in these terms. In the international sphere, in the negotiation of a treaty, States act as 'subjects of international law'; that is, as individual subjects. Depending on the treaty in question, the interaction between various States – represented by the individuals acting on behalf of them – can take on a cooperative or a non-cooperative character. Cooperative if, for the entry into force of a treaty, it is required – for the purposes of the negotiation itself – a certain number of States to sign or ratify it. Non-cooperative if the entry into force of a treaty does not depend on the 'sum of wills' of other States, or if, requiring the subscription or ratification, a State decides to withdraw from such subscription or ratification to carry out its own interests regardless of the interests of other States.²⁵ Of course, in some cases, the ratification of an international treaty requires the ratification not only of the executive, but also of the legislative body. Then, the problem becomes more complex to the extent that the 'game' is again presented as cooperative: lawmakers, for the ratification or rejection of a treaty, must make alliances, form coalitions, for which reason they reproduce, in these conditions, many other interests common to such coalitions of individuals (commonly influenced by various groups with dissimilar interests: environmentalists, lobby groups, businessmen, politicians of various tendencies, the executive itself [see Farhang S, 2012]). In cases where there is a planetary aim (insofar as it is a global problem with incidence beyond state borders), such as the protection of the environment against its degradation and the fight against climate change, the results of these interactions affect or benefit other individuals directly or indirectly. Even more so if we consider the position of some States due to its weight in the international community or due to its specific contribution to the increase of the problem.

24. As an example, one can think of the debates that took place, in Ecuador and Chile, around the recognition of the 'rights of nature'. Some argued that this recognition should be given, many others argued that nature is nothing but an object of legal protection. In both cases, the thesis of the recognition of rights to nature prevailed. The Ecuadorian Constitution was approved in a referendum, the Chilean, on the other hand, was rejected.

25. Think about the case of Kyoto Protocol (specifically in the case of the United States).

2.3.2. Non-cooperative Games and Legal Interpretation

Once the legal provisions are in force, the conflict usually moves – in general terms – from the legislative sphere to the sphere of (national or international) judges. At least when the parties do not resort to *extra ordinem* solutions. The parties to a judicial process – often at conflict with each other – defend dissimilar interpretations of the same normative provisions. The very same provisions, according to the approach of these parties, express antithetical rules (that is a ‘conflict over the determination of the *meaning* of a normative legal formulation’). Legal provisions are normally subject to dissimilar and conflicting interpretations of the same texts: the interpretation occurs in circumstances of conflict (Comanducci P, 2011: 54-55). Often the conflict between the parties (the *subjects of the conflict* at this point) occurs because their ‘interpretive interests’ are incompatible. Jurists and other actors disagree about what the law ‘says’, and about what the rights of each of the parties ‘are’. In this regard, according to Celano, “the interpretive games of legal operators are not coordination games, but non-cooperative strategic interaction problems (...) in which the interpretive interests of the participants are in conflict” (Celano B, 2017: 24).

It may be the case, of course, that the parties to a judicial process disagree not only about the interpretation of legal provisions, but also about the ‘assessment of the facts’ in a judicial process; that is, what is considered proven in a given case. The parties have diverse or conflicting interpretive interests that they cannot resolve on their own, so they must make their decisions independently of the other parties (the other ‘players’). These are, in terms of game theory, non-cooperative games. These are conflicts that do not have as their objective the establishment of legal provisions, but primarily their *meaning* (according to conflicting interpretive interests between the parties to a judicial process). See, for instance, *West Virginia v. Environmental Protection Agency* (EPA) (2022). In this case, the State of West Virginia and others claimed that the Clean Air Act²⁶ gave too much power for the EPA to impose wide control over power plants.²⁷ This was

26. Which interpretation and scope was the very main issue to the Supreme Court to decide: “The Clean Air Act authorizes the Environmental Protection Agency to regulate power plants by setting a ‘standard of performance’ for their emission of certain pollutants into the air (...) That standard may be different for new and existing plants, but in each case it must reflect the ‘best system of emission reduction’ that the Agency has determined to be ‘adequately demonstrated’ for the particular category (...) For existing plants, the States then implement that requirement by issuing rules restricting emissions from sources within their borders. Since passage of the Act 50 years ago, EPA has exercised this authority by setting performance standards based on measures that would reduce pollution by causing plants to operate more cleanly. In 2015, however, EPA issued a new rule concluding that the ‘best system of emission reduction’ for existing coal-fired power plants included a requirement that such facilities reduce their own production of electricity, or subsidize increased generation by natural gas, wind, or solar sources. The question before us is whether this broader conception of EPA’s authority is within the power granted to it by the Clean Air Act.” (Justice Roberts delivered the opinion if the Court)

27. For the West Virginia Attorney General, “[the Clean Air Act] can set standards on a regional or even national level, forcing dramatic changes in how and where electricity is produced, as well as transforming any other sector of the economy where stationary sources emit greenhouse gases.” See Barnes R, Grandoni D (2021). “Supreme

against the EPA's 'claim' to regulate emissions: "[In 2015,] EPA promulgated two rules addressing carbon dioxide pollution from power plants—one for new plants under Section 111(b), the other for existing plants under Section 111(d). Both were premised on the Agency's earlier finding that carbon dioxide is an 'air pollutant' that 'may reasonably be anticipated to endanger public health or welfare' by causing climate change."²⁸ It is, basically, a problem about the interpretation of power conferring rules, but with genuine substantive consequences.

2.3.3. Cooperative Games and Legal Interpretation

Not only can jurists disagree about the 'correct' interpretation of legal provisions, but also judges could find themselves in the same position, as it is often the case in courts where decisions must be taken by a majority. In these cases, one could find also *dissenting opinions*. The solution of the conflict, nonetheless, depends on obtaining a certain majority. These interpretive conflicts are cooperative games. This, in the sense that the judges must obtain the necessary 'adhesions' so that their final decision (that is, the decision of the case) is the one that, according to the rules of the legal system, counts as a legal decision. Dissenting opinions, however well argued they may be, however convincing they may be in a given interpretive community, ultimately do not count as legal decisions, in the sense that they cannot produce binding legal effects. The ascription of a meaning to a legal text or provision is – for the purposes of the legal system – a matter of interpretive powers. In interpretive practice, the arguments that are invoked and the reasons that are used in favor or against a certain conclusion matter, of course. And yet, ultimately, the resolution of a 'problem of justice' ('what does justice require in a case X?') has to do with the exercise of certain powers and the practice of certain procedures (Celano B, 2002).

The problem arises because the interpretive powers given to certain bodies or to certain individuals, as a result of the transformation (albeit partial, but decisive) that the law makes of substantive problems into formal problems, ultimately define – from the point of view of legal order – what counts as law (i.e. what count as a legal decision) (Celano B, 2002). In other words, it is the exercise of these interpretive powers that determines the legal meaning of a legal provision. (For example, it is evident that the entire debate on the recognition of the 'rights of Nature' in the Ecuadorian case did not mean its resolution in interpretive terms, where disagreement between jurists and judges still prevails.²⁹) We could agree, for instance, that the decision of the judges has been 'wrong', that the interpretation of the law has not been 'correct', or that the assessment of the facts (the evidence in judicial process) has also been 'defective' (all issues subject to discussion); but this does not imply that their decision is not, according to the rules of the system, legally binding. We could attack it, appeal it; and, even so, eventually we will have a final decision, not subject to further legal ways of control in the terms

Court will hear cases that could undercut Biden's goals on climate, immigration." *The Washington Post* (Politics, Courts & Law Section), October 29, 2021.

28. *West Virginia v. Environmental Protection Agency* (2022). (Opinion of the Court delivered by Justice Roberts)

29 As an example, see the case *Manglar Cayapas Mataje v. Marmeza* (see Narváez Álvarez MJ & Escudero J, 2021).

of the legal order. This is an objective problem of legal systems, an inescapable effect of the *nomodynamics* of law (see Kelsen H, 2006; Celano B, 2002).

Bear in mind that courts that have the power to make a final decision are generally made up of an odd number of judges who must decide cases according to the majority rule (where the majority decision counts as a legally binding one). Therefore, the interpretive conflicts that may arise there can be characterized as cooperative games. This is how, ultimately, in our modern legal systems certain cooperative games (in legislative contexts) give way to certain non-cooperative games (between the parties of a judicial process) and, eventually, to other cooperative games (where the supreme courts - in the broad sense - make decisions that depends on obtaining a certain majority). The 'games' seen in this way are legal conflicts of different types that arise within the law, but that also determine it in terms of its very content. Just to make an example, consider that in the aforesaid case *West Virginia v. Environmental Protection Act (2022)*, the Supreme Court of the United States has decided on by a majority of 6-3. Here, the determination of what counts as law (such as a legally binding judicial decision) depends ultimately on the majority rule.³⁰ Under these conditions, obtaining a majority means making alliances, forming coalitions around the 'correct' and 'binding' interpretation of a certain normative provision. Ultimately, the problem is about conflicting interpretations that seek to determine the meaning of one or several provisions, but that can also confront the different political ideologies of the judges (of course, it is not the same to have a court with a conservative majority than one with a liberal majority), as well as different ideologies of legal interpretation (for example, the various forms of originalism) (see, *inter alia*, Sardo A, 2018: 167 ss).

3. The Objects of the Conflict

The conflicts that I have talked about in the previous section focus on the 'subjects of the conflict' (on the 'players', according to the approach presented), but the conflict can also be understood from the point of view of its *object*. As seen in the previous section, in practice of law there are conflicts over the approval of legal provisions, over the meaning of those provisions, and over the assessment of the facts that are considered proven in a particular case. These represent three different objects, corresponding to two different aspects of law: the creation and the application of law. However, from the point of view of the legal order, legal conflicts are typically called antinomies. A legal antinomy is a case of intra-systemic normative incompatibility (that means that it occurs in the context of a

30. All these conflicts reconstructed as (cooperative and non-cooperative) games can be identified in the process of making the law: there are conflicts for the approval of legal provisions, there are conflicts for the interpretation of legal provisions, there are conflicts for the assessment of the facts that are proven in a given case. In all these cases, one may find different state and non-state agents that can be a part of these 'games': States themselves, lawmakers, lawyers, judges, businessmen, politicians, environmentalists, et cetera. How these agents must act to achieve their goals is not the aim of this work. I am limiting myself to use some tools of game theory to classify and explain (into the limits of this paper) some conflicts in which different players take part, making at the same time some examples that show how this analysis could be applied to environmental issues.

certain legal system). Here, at least two types of antinomies are distinguished: logical and teleological (Chiassoni P, 2011: 286 ss). Logical antinomies are normative prescriptions simultaneously applicable to a certain case but not possible to be simultaneously followed. Teleological antinomies refer to some incompatibilities at the level of principles (conflicts between principles, frequently conflicts between rights), as when it is said that there is a collision between freedom of expression and honor, freedom and security, equality and freedom, freedom of enterprise and the right to environmental conservation, health care and freedom of movement (as it happened in the recent COVID-19 pandemic), etc. In what follows, I will explain how one can reconstruct the problem of conflicts between principles (as fundamental rights) using some tools of set theory.

3.1. Fundamental Rights and Intra-systemic Conflicts: Some Applications of the Set Theory

A 'set' is a collection of objects of any kind, generally called 'elements', grouped according to certain defining criteria. There are, in general, two identification criteria: the criterion of 'extensionality' and the criterion of 'intensionality' (with an 's'). The 'extensional identification' of a set is done by enumerating each of the elements that belong to that set. 'Intensional identification' is performed, instead, by establishing certain properties that the elements of a set must satisfy in order to belong to it. Thus, for example, if we wanted to identify the set 'W', made up of the days of the week, according to an extensional criterion, we would represent it as follows: $W = \{\text{Monday, Tuesday...}\}$. On the other hand, if we want to identify the elements of the set 'P', made up of the prime numbers, according to an intensional criterion, we would say that those natural numbers that satisfy the property of being divisible only by 1 and by themselves belong to 'P'. In this way, the natural numbers 2, 3, 5, 7, 11... are elements of the set 'P', since they satisfy the indicated property, while the numbers 4, 6, 8, 10 are not (see Ratti GB, 2013: 241 ss).

I will consider a legal system as the *set* of explicit and implicit norms belonging – according to certain criteria – to that system. In this sense, a 'legal subsystem' is a 'subset of norms' included in such a system. In this way, the set of fundamental legal rights is also a 'subset', a 'subsystem'. The precise determination of the rules in force in a certain system of laws is not something always peaceful (Guastini R, 2011: 39 ss), even in a synchronous perspective. However, it is not usual for jurists to engage in the overwhelming task of extensional identification (i.e. by enumeration) of all the rules belonging to this or that system. It is more common, at least in the field of fundamental rights, the postulation of certain properties that are understood to be common to certain sets of specific subjective rights (i.e. intensional identification, in the terms of set theory). Thus, the subset of fundamental rights in a given system, according to our usual classifications, normally includes various subsets made up of certain specific subjective rights that belong to it due to such properties (Maldonado-Muñoz M, 2021: 113 ss). The very existence (or the absence) of a conflict between rights depends – I believe – on the intensional properties that we attribute to a certain set of (fundamental) rights. If the law is understood, for these purposes, as a 'structured set of norms' (Guastini R, 2004), the fundamental

rights form a 'subset' integrated in turn by normative 'subsets' grouped under the labels of the so-called *principles* (for instance, freedom, equality, environmental conservation, security, health care, education, et cetera).

It seems to me that the reason that leads to sustaining that there are certain conflicts between principles (as fundamental rights) goes through the postulation of some properties used to 'form a set' of elements that are subjective rights in a concrete sense. The elements of a given normative set must comply - *ex hyphotesi* - with those properties in order to be part of that set (to be subjective rights that are protected by some principle). But these properties - often vaguely or ambiguously structured - admit different conflicting concretizations depending on the properties in question. For example, freedom of enterprise and environmental conservation can appear as conflicting principles depending on the properties we postulate in each case. If we say, for instance, that a subjective right is protected by freedom of enterprise if it is an action concerning the exercise of any legitimate economic activity, and we say that a right is protected by the principle of environmental conservation if it has to do with the preservation of natural resources and environmental goods, there is - one can say - a possible conflict. There is a teleological incompatibility that is reflected in the conflicting concretization of subjective rights that the postulation of those vague or ambiguous properties can create. This leads us, in fact, to the already mentioned problem of the always difficult 'compromise' between principles (for instance, between environmental conservation and freedom of enterprise). The idea (the ideal) according to which it is *always* possible to 'strike a balance' - find a solution through a process of harmonization - misses the target. The reason is to find in the very 'nature' of principles, structured by the postulation of intensional properties afflicted by vagueness or ambiguity in their formulation (a formulation that admit different and conflicting concretizations).³¹

31. Note that the existence of a conflict seems to depend either on the postulation of certain properties from which the existence of certain subjective rights is 'deduced', or on the identification of a specific right that is postulated as belonging to a set to which such properties are attributed that can protect such right. The conflict (the antinomy) does not depend on the verification of a certain fact, but on our usual classifications, on the way in which we conform the different sets and, in that sense, on our interpretations about rights (or on the various conceptions about them), which includes the problem of the different non-cooperative and cooperative games in which jurists and judges participate. In other words, in an intensional sense, the conflict depends on the properties that are attributed to at least two normative sets, while, in an extensional sense, it depends on the fact that a specific right (which is nothing more than the product of the interpretation of certain provisions) is incompatible with another subjective right (also previously interpreted). In other words, the principles are not hopelessly in conflict with each other. Such a thing depends on the different conceptions about the principles (one could say, it depends on the intensional properties with which we conform these normative sets), so that these may be compatible in certain cases and incompatible in others. Nevertheless, when there is conflict, these are usually resolved, in the legal field, in accordance with certain procedures. The solution, although difficult, the conflict, although tragic, usually obtains some type of legal discipline. The paradox that we face in this case, which Celano B (2019) calls the 'paradox of nomodynamics', is that the resolution of a conflict is redirected, as I said before, to a problem of interpretive powers (and, ultimately, term, to 'interpretive games').

4. Intra-systemic and Extra-systemic Conflicts

The idea that there is an intra-systemic conflict *presupposes* the identification of the rules that are part of the existing law in a legal system. This suggests that it may be the case that there are certain rights that do not have, in that system, antinomic norms in contrast to them. In such cases, a conflict will not be verified in the legal field (in intra-systemic terms), although this does not eliminate the possibility of identifying (from the extra-systemic point of view) possible moral dilemmas, conflicts of values, or practical conflicts. The antinomies, the dilemmas and the practical conflicts do not necessarily have to coincide, there may well be antinomic norms that correspond to some rights, and there may be rights that, even if in conflict with certain moral or practical visions, do not have – in that legal system – antinomic relations with other norms (Maldonado-Muñoz M, 2021: 112 ss). For centuries, jurists have peacefully used the word ‘antinomy’ to refer to an incompatibility (a conflict) between two norms within a legal system. Ultimately, this also implies the existence of a practical impossibility: the impossibility of adapting one’s own behavior to mutually incompatible norms (Hart HLA, 1983: 309 ss). Hence, from the point of view of the legal system, an antinomy is presented as a kind of internal conflict; that is, as an intra-systemic conflict. From the extra-systemic point of view, on the other hand, conflicts can be seen – from a practical philosophy point of view – as *practical conflicts* or – from a moral philosophy approach (when this is the case) – as *moral dilemmas*.

Personal practical conflicts are usually defined as those in which a person (an agent) has contrasting reasons to do ‘A’ and ‘B’, without being able to do both actions at the same time (cf. Raz J, 2004, 172 ss). Even in an apparently banal case, such as in which an agent must decide, for example, whether to accept or reject a bag in the supermarket. Of course, on a larger scale, the problem does not seem trivial at all (McLean D, 2019). By extension, we speak of interpersonal practical conflicts to refer to those conflicts in which different agents have different reasons for action in contrast between them (see Baumann P, Betzler M, 2004). People have or accept different wishes, preferences, interests, goals, plans, commitments, values, virtues, obligations, and moral standards (Baumann P, Betzler M, 2004). And all of these can lead to practical conflicts, since in certain circumstances they all constitute *action-guiding claims* (Baumann P, Betzler M, 2004) (the reasons involved in these cases are reasons to act, not to believe). In this type of reasoning, according to von Wright, an individual action is understood according to the background of its reasons, i.e., the ends desired by the agent and the means considered to achieve them (Von Wright G, 1999: 11 ss).

All practical conflicts represent species of conflicts whose ultimate implication is that two courses of action cannot be exercised simultaneously, ultimately generating a practical incompatibility. That said, any legal antinomy between rules of conduct is also a kind of practical conflict although not every practical conflict is at the same time a legal antinomy. In the case of the antinomies between rights, and particularly between fundamental rights, these kinds of practical conflicts usually have – according to the standard conception – a special moral value, so that they tend to be more frequently treated as kinds of moral dilemmas (and here we are facing an extra-systemic approach). This, to the extent that such

conflicts focus on the existence of contrasting moral requirements. Of course, moral dilemmas are also species of practical conflicts, so that every moral dilemma is also a practical conflict, but not every practical conflict is also a moral dilemma. If a practical conflict can be understood – in a purely metaphorical sense – as an “arena of competing interests,” in the case of moral dilemmas these interests (using the word in a broad sense) take the form of moral conflicting reasons to act. This happens sometimes in the case of a single agent (personal moral dilemmas), sometimes in the case of multiple agents (interpersonal moral dilemmas) (MacConnell T, 1998: 25-35).

Certain rights are often claimed for their ‘moral value’. In this case, we speak – in a broad sense – of ‘moral rights’; that is, rights that appeal to a certain morality, to a certain moral order that is claimed – by certain individuals – as a sufficient justification to achieve legislative recognition or judicial protection. (As it happened with the claimed conservation of rivers, water sources, etc.) (see Martínez-Moscoso A, 2021; Martínez-Moscoso A, Salazar-Marín D, 2021). In other words, one can say that the law has either not recognized a certain right or has prohibited its exercise; but it is requested this to be changed. Of course, sometimes ‘moral rights’ are claimed in non-legal contexts, although the opposite is usually the case with certain claims, including those of environmental defenders. Of course, in these contexts there is room to talk about possible moral dilemmas. Think, for example, of a parliamentary discussion about the exploitation of natural resources to fund other important needs as health care or education, the guarantee of rights in environmental contexts, the guarantee of freedom of enterprise, et cetera. It is to be expected that in this case we find ourselves facing a moral dilemma. But what kind of moral dilemma? It is, as it seems obvious, an *interpersonal* moral dilemma; that is, a conflict in which several agents whose moral positions are divergent concur.³²

In this way, the moral conflict arises precisely because of the meeting of various moral requirements, according to different ‘moral normative systems’ that different agents embrace. The same can be said about judicial disputes in which matters of this magnitude are discussed. It is to be expected that the parties to a judicial process will also defend different moral positions on various issues (a very important part of environmental debate lies on moral reasons). Of course, here it is possible that each of the parties does not see its own moral position as the product of a dilemma; on the contrary, the (interpersonal) dilemma occurs to the extent that two different parties hold incompatible positions in moral terms. One must say, for instance, that the actual and current needs of people cannot be postpone on the altars of uncertain future needs (*the tragedy of the commons*) (cf. Dodds WK, 2005); nonetheless, the principle of ‘intergenerational freedom’ is based on the plausible hypothesis that future generations will have similar needs to ours, and that it is in our hands to protect them, that we are moral responsible about it. Either outcome will sacrifice something valuable to one of the parties. In this case, a conflict between claimed rights coincides with the content of an interpersonal moral dilemma. The existence of the interpersonal moral dilemma to which legal relevance is attributed often creates legal conflicts (cooperative or non-cooperative). It is commonly

32. Agents who, by the way, might not see their own individual position as dilemmatic from the personal point of view. See MacIntyre A (1990).

thought that interpersonal moral dilemmas may be much more relevant to the law than personal dilemmas are. It is enough to consider that the law is inextricably associated with the phenomenon of alterity, and that, therefore, it does not usually focus on subjective conflicts, but on intersubjective ones (here, in fact, we have seen several).

But is there room in law (specifically environmental law) for personal moral dilemmas? An obvious – but also somewhat trivial – first answer is that a legislator or a judge may see their own position as dilemmatic. The tension that exists between various requirements (in the abstract or in the concrete sense) that could be equally important, such as the conservation of nature and the satisfaction of current needs that could be satisfied through the exploitation of natural resources, can be the subject of a personal dilemma with far-reaching interpersonal consequences. However, I would like to briefly mention another highly topical problem, which has to do with the (apparently moral) responsibility of individuals on environmental conservation. McLean, for example, deals with the problem of ‘individual responsibility’ (*individual accountability*) in the context of climate change and, therefore, in the area of environmental preservation (McLean D, 2019). As has been seen, the problem that I have dealt with in this paper has a clear *global* incidence. Public and private actors are involved in different ways. But it is also interesting to see that this problem, which can be seen at the level of the States as the main actors in a planetary problem, is also analyzed – at the other end of the question – as a personal problem (and, precisely, as a kind of moral dilemma). By hypothesis, individuals also play an important role regarding this planetary problem. Faced with certain comfortable or hedonistic choices, there would be others that would require a moral commitment of another type. Recycle, reuse, reject certain products. Consider the carbon footprint left by some of your activities to avoid them. Take care of natural resources. All are seen, in contemporary societies, as responsibilities that are also individual. At the other extreme of the problem of conflicts in environmental contexts, the conflict is internal, has moral weight, and confronts us with certain dilemmas. But here too, ultimately, the *asymmetry* that I have spoken of from the beginning returns; this time, the asymmetry and, therefore, the different responsibility that exists between individuals as ‘polluters’. This is to the extent that the efforts that a conscientious individual can make to protect the environment and the limited impact that they can have contrast with the (apparently) low efforts of others with much more abundant resources.³³

5. Conclusion

In this paper I have used some analytical tools to address the theoretical issue of (legal) conflicts, especially conflicts between rights. Dealing with the problem of conflicts in environmental contexts has served me to test some ideas and, I hope, to contribute something to a very complex debate. Here we have made a ‘journey’ from the international community to the consciousness of the individual. Perhaps only the problem of environmental conservation with all its contemporary implications can take us so far and so

33. E.g, see Chiu A (2022).

close to ourselves in terms of conflicts with some relevance, direct or indirect, to the law.

ⁱ This version of the paper was rectified on December 16th, 2022.

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