ARTICLE

A maximalist approach of restorative justice to address environmental harms and crimes: analysing the Brumadinho dam collapse in Brazil

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Abstract

In this article, the author analyses court cases arising from the rupture of the mining tailings dam in the city of Brumadinho, Brazil, on 25 January 2019. In a civil lawsuit context, legal professionals recognised damage to people and the environment during hearings involving a judge, prosecutors, lawyers and corporate representatives. The centrality of the victims' interests and the need for remedial measures prevailed in the agreements signed mainly to provide urgent relief and restore damage to the ecosystem. In the criminal lawsuit dealing with the same facts, there have not yet been acquittals, non-prosecution agreements or convictions. By employing a socio-legal approach to contrast different types of legal reasoning, this article explores the possibilities of restorative responses in civil proceedings and explains the lack of them in criminal justice. In highlighting some characteristics of punishment theories that hinder a possible restorative justice approach, the article offers a critique of a penal system mostly linked to argumentative competition rather than persuasive conflict resolution. The author argues that jurisprudence should address transdisciplinary concepts, such as responsive regulation, restorative efforts, proportionality and individualisation of punishment. The discussion can shed light on the decision-making process to allow environmental restorative justice responses to crimes.

Keywords: environmental law, maximalist approach, restorative justice principles and concepts, decision-making process, sanctioning rules.

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1 Introduction

The consequences of harms and crimes related to the exploitation of the environment and natural resources worldwide have attracted attention from the international academic community. In April 2019, the Catholic University of Leuven in Belgium hosted an international seminar called 'Restorative justice responses to environmental harm and ecocide'.[1] The seminar was grounded on the premise that the restorative justice perspective, driven essentially by the principles of participation, harm reparation and healing, are crucial in conceiving environmental justice. The experts at the seminar suggested that an analysis of solutions for the conflicts arising from the rupture of the mining tailings dam in the town of Brumadinho, Brazil, under the guidance of restorative justice principles, be made.

In this article, I frame the legal discourse as a textual practice to analyse the particularities of two ongoing legal proceedings, one civil and another criminal. In both dossiers, Vale S/A, one of the largest mining companies on the planet, was identified as responsible for the ecological, socio-economic and human damage resulting from the dam breach, as mentioned above. Although the civil case is at a much more advanced stage, it has not yet been closed (December 2020). The criminal case is still in its early stages. However, specific procedural steps and legal details are not the focus of this article. I will present, in general lines, two opposite styles of approaching the subject. A detailed examination of the legal discourse portrayed in the court records will be made. Next, I will compare the restorative responses present in civil proceedings with the lack of them in criminal justice. Therefore, this case study clarifies the minutiae of legal procedures to explain how each branch of law can produce very different consequences depending on the reasoning applied.

The research methodology involved reading, selecting and interpreting legal records to 'decipher' their results to date. I describe the preliminary outcomes of the civil proceedings and the prosecutor office's version of the facts in criminal justice. I identify as empirical findings not only the reasons that allowed for restorative responses in the civil case scenario, but also die-hard retributive reasoning in criminal justice. So, I point out a systematic use of mandatory punishment that blocks alternative solutions in criminal justice. I will then explore how restorative decision-making depends on the type of reasoning and the agreed way of mobilising it. I argue that using legal discourses embedded in a restorative justice approach could be an alternative to retributive sentencing reasons. To this end, I will assert that legal professionals must, in the first place, harmonise the legal discourse with concepts, goals and principles of restorative justice. Only then could they provide restorative responses to environmental crimes in court cases.

I will explore possibilities for dealing with corporate environmental crimes from a maximalist perspective of restorative justice, which requires a substantial

1 Retrieved from www.kuleuven.be/apps/mailtemplates/previews/14880-5c5a9be3ee6af.html (last accessed 15 December 2020).

update of legal cultures and changes in legal training of law professionals to produce innovative criminal jurisprudence. If this does not happen, the lack of institutionalisation of restorative justice within the justice systems will continue to keep restorative justice only as an irrelevant complement to the traditional criminal justice system (see Braithwaite, 2002a; Jaccoud, 2007; Walgrave, 2002, 2007). The model suggested here, completed with adaptations and additional research, could contribute to the development of critical knowledge that can be applied in cases of environmental crimes and harms.

The article is structured in six sections. First, I discuss the socio-legal context contemporary to the disaster and the socio-historical significance of mining activity for the region of Brazil, where the tailings dam collapsed. Second, I explain the analytical methodology that frames law as a meaning-producing narrative. I will describe how each type of reasoning impacts differently on the drafting of legal texts and conveys opposing meaning to court records, even though they deal with the same facts. Third, I show how the peculiar hearings that took place in the civil proceedings on the occasion of the Brumadinho disaster produced a legal discourse that prioritised compensation for victims, offenders' involvement in the repairing and the remedying of environmental damage. Fourth, I describe the initial phase of criminal proceedings relating to first-degree murder charges (among others) against some of the people who worked for the corporation in question. The meaning given to the accusation helps explain the differences of reasoning between the two legal files, as well as the lack of settlement in criminal justice. Fifth, I use the systemic theory of modern penal rationality to understand better and to criticise the traditional way in which criminal law approaches problematic situations. Sixth, after introducing the conventional barriers to applying a new criminal law thinking, I address some possibilities of legal sentencing for environmental restorative justice purposes. Finally, I propose overcoming obstacles through the further development of legal discourse, which would result in shifting to restorative penal rationality regarding environmental justice.

2 The historical and socio-economic contexts of the Brumadinho dam collapse case

Let us start by relating the socio-legal context of the disaster with the historical significance of mining for Brazil. Actually, in the 18th century, large-scale gold mining forged the name of the State Minas Gerais (General Mining) and the effects of the gold rush are still present in the area. Nowadays, there is still gold mining, but iron exports are much more crucial to the state economy. Current iron suppliers to the world market, such as Australia, Brazil, India and South Africa, are likely to be the primary beneficiaries of the growing consumption of iron ore in China, for example (Kirk, 2004).

Precisely because mining activities are intuitively damaging to the ecosystem, some problematic situations sometimes fall within the legal concepts of environmental damage and crimes. To illustrate, Aertsen (2018: 236) and his

colleagues in a European research project adopt a definition that 'corporate violence' takes place when corporations, in the course of their legitimate activities, commit criminal offences that result in harms to people's health and life integrity.

Undoubtedly, more than three centuries of mining activity have generated economic wealth for some in Brazil, but they have also caused specific environmental threats that are visible today. To cite just one, but prominent, example, on 5 November 2015, the mud from the rupture of the Fundão dam swept over the district of Bento Rodrigues, in the historic city of Mariana, causing nineteen deaths and leaving dozens of families homeless, in addition to causing severe damage to the local environment. Approximately 40 million cubic metres of mining waste, composed mainly of silica (sand) and iron oxide, were released into the environment, reaching 663 kilometres of rivers and streams and 1,469 hectares of vegetation. Besides, 207 buildings were buried only in the district of Bento Rodrigues, Minas Gerais. The mud reached the Doce River, whose basin is the largest in the Brazilian Southeast, increasing the turbidity of its waters and causing the death of fish and other animals (Thomé & Passini, 2018: 50-51). In its turn, on 25 January 2019, the Brumadinho dam collapsed. The dramatic occurrence caused losses of proportions not yet fully known, but that exceed many billions of dollars. Still, the tragedy provoked a sea of muddy sludge containing iron ore tailings, with a trail of destruction that encompassed the company's administrative area and the nearest community, in the municipality of Brumadinho, reaching riverbeds, water catchment points and other counties. Massive damage to the ecosystem, watercourses and vegetation areas affected by the tailings is noticeable, in addition to the death of 270 human victims. Mental distress and negative impacts for survivors, family members and employees have also occurred, in addition to the damage to corporate reputation.

After being quickly confronted with the colossal number of fatalities in the Brumadinho case, Vale S/A recognised its responsibility for the events. Its former CEO acknowledged the accident and apologised for the tragedy on 25 January 2019.[2] Nonetheless, on 28 January 2019, the press released a statement by one of the corporation's lawyers, who claimed that it might not be possible to identify personal accountability among those in charge.[3] To him, the rupture of the dam could have been a fortuitous case of unknown causes, and there would possibly have been no negligence, recklessness or malpractice. This argumentation could have provoked further debates about which legal thesis would prevail at the judicial proceedings.

However, public opinion did not receive the lawyers' statement with enthusiasm, considering the consequences of the tragic events. On 28 January 2019, Vale S/A neither endorsed the attorney's statements nor authorised him to speak on behalf of the company or express his personal opinion

2 See www.vale.com/EN/aboutvale/news/Pages/fabio-schvartsman-annoucement-about-brumadinho-breach-dam.aspx (last accessed 02 May 2020).

3 See www1.folha.uol.com.br/colunas/monicabergamo/2019/01/vale-nao-tem-responsabilidade-e-diretoria-nao-se-afastara-diz-advogado.shtml (last accessed 25 April 2020).

on the matter.[4] Thus, by not insisting, at the time, on the application of a fortuitous event or a *force majeure* thesis – technical defences per law but possibly inappropriate for that moment – the company opted for framing the rupture of the tailings mining dam under a dialogical guidance. Vale S/A emphasised its willingness to contribute to the investigations, expressing its unconditional support for the affected families. The former Vale CEO announced the following plans on 27 January 2019:

> It is impossible to come here and remain unaffected by the sadness of the situation and the superhuman efforts of all those assisting in this operation. As for us, Vale is putting everything it has available, all equipment and human resources, without limits.
>
> It seems to me that there is only one solution: We have to go beyond any standard, national or international. We are going to create a safety mattress that is far superior to what we have today.[5]

It is worth saying that Vale S/A on 30 April 2019 appointed a board of directors to accelerate reparations for the affected people, address events and humanise the relationship with the communities.[6] The special executive board for recovery and development (a body within the company) was designed to focus on structuring actions, including repairing the damage caused by the failure of the dam, coordinating the socio-economic and environmental recovery activities of the affected municipalities. It reports to Vale's CEO and participates in weekly meetings of the regular executive board to account and discuss the progress of the initiatives. The special executive board is responsible for all social, humanitarian, environmental and structural recovery actions to be carried out in Brumadinho and in the sixteen municipalities along the Paraopeba river up to Retiro Baixo dam (Minas Gerais).

The restoration has begun right after the accident on 25 January 2019 and will last many years. There have been multiple social reactions to the mentioned rupture and about how to deal with it. Still, the focus of this article is on exploring the possibilities of an innovative legal discourse for environmental crimes which can be guided by the principles of restorative justice. The next section explains the methodology used to address the issue.

4 See www.vale.com/EN/aboutvale/news/Pages/Vale-prohibits-statements.aspx (last accessed 25 April 2020).

5 See www.vale.com/EN/aboutvale/news/Pages/Back-in-Brumadinho,-Vale-CEO-announces-a-plan-to-create-a-new-dam-safety-standard.aspx (last accessed 25 April 2020).

6 See www.vale.com/china/EN/aboutvale/news/Pages/Vale-establishes-an-Executive-Board-to-accelerate-compensation-for-affected-people.aspx (last accessed 19 August 2020).

3 Framing the law applied as a discourse that unravels a meaning-producing narrative

This article contrasts two types of legal discourses in order to expose their different epistemological functions. The language of the law allows for divergent points of view on the same subject and affirms the power to exclude and incorporate arguments from the discourse (Gellers, 2015). Therefore, when drawing a distinction (Luhmann, 2004), this article highlights how peculiar features of the Brazilian civil law reasoning produce opposite consequences to those of criminal law, while focusing on the same facts of this case study – the tailings dam rupture in Brumadinho, Brazil.

This methodological approach demands specialised knowledge and techniques to collect, analyse and summarise critical information (Alves da Silva, 2017). Studying judicial processes requires a series of legal analytical skills and involves methodologically exploring issues related to interpretation and power (Alves da Silva, 2017: 315-316) – 'interpretation', because this article concerns itself with the written text of two lawsuits, and not the dam rupture itself, and 'power', because judicial documents are not only institutionally produced but also disclose the binding solutions settled within the records. In other words, the law is a source of language (Gellers, 2015) as well as a forum for expressing the power of institutional decision-making. Therefore, this analysis frames the applied legal reasoning as an expression of the discretionary power that law professionals had for choosing, alternatively, between narratives with a restorative or retributive meaning.

So, I examined the legal text that aims to rationalise judicial decisions, because I was looking for answers to the following questions: How does civil law reasoning allow for restorative responses? And what are the discursive structures of retributive thinking that prevent similar solutions in the sanctioning procedure? To this end, I examined the legal files related to the Brumadinho case, which add up to more than 20,000 pages of court documents accessible on the internet, available for consultation by accredited professionals. Next, I interpret the data source, distinguishing between the narrative of civil proceedings and that of criminal justice, and indicate whether the process contains reasoning developed to achieve restorative responses or only retributive thinking. By doing so, I can empirically identify a reasoning structure that provides restorative outcomes, and another that contains obstacles that prevent restorative responses from being obtained.

Many elements of the case are not included in the court records, and these legal documents may reveal only part of an official view of the full reality. However, reading legal processes framed as research data allows us to identify and present potential traces of a new environmental restorative justice as it appears in its legal and judicial institutionalisation. My observations are partly based on official information available on the internet.[7] Moreover, the data can be cross-checked through the special website created by the State Appellate

7 See https://pje.tjmg.jus.br/pje/ConsultaPublica/listView.seam (last accessed 26 April 2020).

Court[8] and through the Vale/SA international website.[9] The next section will focus specifically on the civil case.

4 Overviewing the legal discourse and the restorative efforts in the civil lawsuit context

In the state of Minas Gerais, there is specialisation among first instance judges to decide specific topics relate, for example, to civil, criminal, administrative or family law, and since it is a rather complicated task to explain all the nuances of the local division of competencies in a short article, to simplify the reader's understanding, it suffices here to say that I contrasted civil *versus* criminal reasoning.

The state of Minas Gerais decided to seek a judiciary response and presented itself as a legitimated actor to file a civil lawsuit petition on 26 January 2019, the very day after the date of the event. Perhaps the state of Minas Gerais opted for the institutional strategy of looking to (technically) provoke a judge by petition instead of investing in an extrajudicial settlement attempt because of the memory of Mariana's disaster, which happened in 2015. However, the precise reasons for choosing this option are not clear from the records. When reading the petition that was filed up, it becomes clear that its author was looking for compensation for the damages resulting from an activity that has always supported the socio-economic development of its population. There are no claims made with the purpose of halting the corporation's activities definitively. Furthermore, the petition was not limited to reparative requests or punitive measures in the narrow sense. The state of Minas Gerais affirmed that the environmental and socio-economic damage made was notorious and uncontroversial, while the company's strict accountability for the full reparation of the consequences was stressed, referring to the provisions in the Constitution of the Republic and other legislation. The civil lawsuit demanded the adoption of immediate measures aimed at protecting people, goods and the environment throughout the entire state of Minas Gerais, ensuring reparation. The state quoted Article 225 of the Brazilian Constitution (Brazil, 1988), which states:

> Article 225. Everyone has the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life, and both government and community shall have the duty to defend and preserve it for present and future generations.
>
> [...]
>
> Paragraph 2. Those *who exploit mineral resources* shall be required to **restore** the degraded environment, in accordance with the technical solutions demanded by the competent government body, *as provided by law*.

8 See www.tjmg.jus.br/portal-tjmg/noticias/caso-brumadinho/ (last accessed 9 April 2020).

9 See www.vale.com/en/aboutvale/reports/atualizacoes_brumadinho/pages/default.aspx (last accessed 28 December 2020).

> Paragraph 3. Procedures and activities considered as harmful to the environment shall subject the offenders, be they individuals or legal entities, to *penal* and *administrative* sanctions, without prejudice to the obligation to *repair the damage* caused (official translation, emphasis added).

Therefore, the Constitution of Brazil emphasises the importance of ecosystem balance and sustainable development for everyone, and it establishes restoration as the primary strategic response to deal with problematic situations resulting from mining impact, with binding consequences in three branches of law: civil, administrative and criminal.

Thus, after learning the facts, on 26 January 2019, at 8:30 pm on Saturday, the office of the duty judge received the request from the state of Minas Gerais. On the same date, the judge recognised the exceptionality and seriousness of the damage widely reported in the world press. The judge in question opted for strict accountability and cited Mariana's disaster to affirm that cases from the recent past reinforce the need for quick actions on the Brumadinho issue, as follows:

> there is a human and environmental disaster that requires the allocation of material resources for immediate and effective protection of victims and mitigation of consequences.

Consequently, the judge on duty ruled a preliminary blocking of USD 265,000,000.00 to Vale S/A. Besides, the judge ordered Vale S/A to immediately take some measures: full cooperation with the authorities for the rescue and protection of victims; adoption of accident protocols to stop the volume of tailings and mud leaks; removal of the sludge released and preparation of reports, to be submitted weekly; mapping the different resilience potentials of the affected area, observing the thickness of the mud mantle, the granulometry and the PH of the material, in addition to the presence of heavy metals, enabling the preparation of the recovery plan; the implementation of obstacles to the contamination of water sources; controlling the proliferation of species such as mice and cockroaches, and other vectors of infectious diseases.

4.1 The rising of a peculiar conflict resolution model

After being analysed by the judge on duty, the file returned on the first business day to the judge of the first instance. Due to the extent of the consequences, many legal professionals sought to speak about legal repercussions personally with the judge, who, realising the exceptionality of the case, scheduled an official hearing on the first available date.

As a rule, such a hearing is nothing more than a kind of institutional meeting, with the presence of all the legal representatives of the parties involved. For our analysis, it is paramount to understand whether such a hearing could assume the

characteristics of a restorative process (UN Economic and Social Council, 2002).[10] Generally, civil law allows for consensual and binding conflict resolution, once the parties and stakeholders accept the procedure freely. In the case under analysis, the state of Minas Gerais is the author (claimant) and the defendant is Vale S/A. Furthermore, the federal and state public prosecutors' offices would represent the interests of the community, but would also manifest themselves in favour of the environment and so-called diffuse rights. Further, the federal and state public defender's offices would represent the collective of those affected, but in a particular way, seeking to identify the damages and losses of each person, if possible. The federal attorney's office represents the Federative Republic of Brazil. For such a hearing, the judge of the first instance decides on procedural issues relating to the organisation and concerning the submission of documents and due process of law. In this case, the judge authorised third parties and lawyers representing the bar association to appear at some hearings, provided there were prior registrations and space available in the auditorium.

Fortunately, the civil law judge in charge had by chance received specialised training from the National School for the Training of Magistrates to conduct collective actions. Moreover, in the past, he had attended a workshop on Mariana's case. Following the triggered model, the trial court judge scheduled the first hearing four days after the disaster. Indeed, beginning on 29 January 2019 and continuing until the present days (December 2020), the parties involved in the civil lawsuit and other stakeholders agreed on proceeding with the judicial hearings model.

In the first hearing were present the trial court judge, the state attorneys, state public prosecutors and the company's lawyers. Vale S/A decided to deposit the USD 265,000,000 initially established to guarantee emergency repairs. From the second meeting onwards, held on 6 February 2019, the other actors joined the process in all judicial hearings: the federal public prosecution's office, the federal attorney's office and the federal and state public defender's offices.

The legal actors mentioned above made an agreement and then decided to settle 'a new model of repair management, without the "polluter paying" interference in the process'. Their main goal was to not allow Vale S/A to be in a leading position. They wanted to keep the company under ongoing judicial surveillance, until they achieved their final goals. Thus, when opting for judicially managing the restoration process, the parties and the trial court judge maintained the possibility of legal coercion as a valid resource.[11]

From the very beginning, the legal actors decided to not follow Mariana's case as a paradigm. The latter consisted of the creation of a foundation (RENOVA Foundation) with an autonomous budget to repair the damage resulting from the rupture of the mining tailings dam, including a broad range of environmental and

10 '"Restorative process" means any process in which the victim and the offender, and, where appropriate, any other individuals or community members affected by a crime, participate together actively in the resolution of matters arising from the crime, generally with the help of a facilitator. Restorative processes may include mediation, conciliation, conferencing and sentencing circles.'

11 This approach resonates with the concept of a regulatory pyramid (Braithwaite, 2002b: 31).

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socio-economic actions. The foundation resulted from the signing of a 'Transaction and Conduct Adjustment Term (TTAC)' between Samarco Mining, with the support of its shareholders, Vale S/A and BHP Billiton (BHP), and the Brazilian Federal Government, the state governments of Minas Gerais and Espirito Santo and other government agencies.[12]At the hearing on 20 February 2019, less than a month after the disaster, a preliminary agreement was reached. One of the crucial points related to the corporation's acceptance to reimburse all expenses incurred by the state of Minas Gerais, including its operational bodies and its administration, as long as such costs were related to the rupture. The initial agreement established assistance to the affected people, as well as emergency aid donations and payments, provided there was reasonable evidence that the people resided in the vicinity of the disaster site. Thus, adults affected would receive a minimum monthly wage, adolescents would receive half and children a quarter of that amount, initially for one year.

To the judge, the payment concerted to support the victims required immediate implementation, in order to avoid perishing. Nonetheless, it was settled that emergency payments would not influence individual claims and that there would be compensation for collective socio-economic damages at the end of the process. However, the parties agreed that waiting until the final sentence might not fit the pressure for economic reparation, taking into account rapid changes and the possibility of new conflicts of interest in a socio-economic context. It is worth mentioning that, given the contamination of the ecosystem, the judge considered it opportune to appoint Brazilian scientific foundations to carry out epidemiological monitoring studies, as well as to measure and monitor the level of heavy metals in the blood of those affected by the disaster.

As mentioned above, the judicial hearing system set up for this case focused on participation, dialogue and harm reparation. However, as stated by the presiding civil judge, the Brazilian law on civil procedures also recognises the possibility of filing collective or class actions to protect private interests. Under this guidance, then, some public institutions could act as representatives of groups of people, and also of entities, to defend plural, and not merely individual, interests. The persons authorised by law to act procedurally in this way are public prosecutors, public defenders, the federal government, federated states, municipalities, federal district and indirect administration entities. This procedural solution could help to solve problems with initiating actions and organising individuals to seek comprehensive solutions for conflicts that concern the community. During the hearings, the first-degree judge reminded all present of the legal procedures, to avoid the repetition of the failures he had observed in previous disasters, in a direct reference to the Mariana case. Still, the civil law judge emphasised the need for a prevailing dialogical orientation among the representatives of all the parties involved.

The judicial hearings continued, allowing for legal exchanging debates and also for the official recording of institutional responses to the problematic

12 To better understand the Mariana model of reparation, see www.fundacaorenova.org/en/about-the-agreement/ (last accessed 5 May 2020).

situation. It was agreed that the rules governing the consequences of the conflict would arise from the decisions rendered during the concatenated series of court debates. Vale S/A restated its accountability for what happened, as disclosed by the press and on the internet. The parties involved reached a consensus because they could express their respective legal remarks before the judge of the first instance, who was responsible for mediation, supervision and policing the hearings, if necessary.

Notwithstanding the consensual model of decision-making by the judicial hearing system, the possibility of initiating appeals to the second instance judge always remained, in accordance with the rule of law. To exemplify such a possibility, Vale S/A filed an appeal stating that it had agreed to the amount of money blocked by the judge on duty, on 26 January 2019. The company, however, requested for the Court of Appeal the recognition that the blocked amount was not a summary expropriation, as if it were some fund available for repair. The appellate judges[13] ruled that provided there is a 'conciliatory posture profiled in the case file', it would be prudent to clarify that the money deposited in court could be used in case of prior consent by the parties or after a trial court decision.

4.2 The civil judge's approach to the issue

After reading the contents of the hearings, I interpret the legal discourse with an understanding that the records display agreements legally valid to the Court of Appeal and also reflect the existence of restorative efforts. The civil law judge, after listening to the parties' statements, stressed that the main question to be answered was *how to reach consensus*, after having mentioned that it was crucial to ensure the opportunity for everyone to hear and to be heard, with no distortions. The magistrate highlighted the need to trust honest communication, however recognising other debaters as contributing to dealing with the issue. He also affirmed that conflict resolution could be more consensual, less impactful, faster and less bureaucratic through stakeholder participation, without grave coercive impositions. The judge incorporated in the ruling the idea that many ways of facing a problem do not necessarily imply irreconcilable differences. Different approaches may qualify the debate and identify alternatives that enable more dialogical, rather than coercive, procedures, behaviours and solutions.

Precisely because Vale S/A did not deny its responsibility in restoring the damage, the judge ruled on 9 July 2019 the corporation accountable for all the harms resulting from the rupture of the mining tailings. At the hearing on 5 August 2019, the judge explained that committees formed by the Federal University of Minas Gerais (UFMG) prepared a technical cooperation agreement to do research and provide expertise concerning the consequences and necessary actions resulting from the rupture of the ore tailings dam of the Córrego do Feijão

13 Appeal n. 1.0000.19.016103-4/001. Retrieved from www5.tjmg.jus.br/jurisprudencia/pesquisaNumeroCNJEspelhoAcordao.do;jsessionid=345E7C8864041D4962BB30E5DE1C1C1B.juri_node1?numeroRegistro=1&totalLinhas=1&linhasPorPagina=10&numeroUnico=1.0000.19.016103-4%2F001&pesquisaNumeroCNJ=Pesquisar (last accessed 2 January 2021).

(Brumadinho). The research results could provide scientific knowledge to help respond to similar events, in a state with a tradition of mining activity. A specific website[14] was created to disseminate research on the case of Brumadinho. It had the general objective of assisting the judiciary through studies and research that enabled the identification and evaluation of the impacts resulting from the rupture of Dam I of the Córrego do Feijão mine.

The specific objectives of the Brumadinho project (developed by the Federal University of Minas Gerais) were to identify and evaluate the emergency needs of socio-economic, environmental, health, education and urban structures, as well as the consequences for the material/immaterial cultural heritage and riverside populations. Furthermore, the website helped to identify other impacts on a local, micro-regional, medium-regional and regional level, and dealt with the needs for recovery and reconstruction in a consolidated assessment report, that would be further developed in a recovery plan. With this document, the Federal University of Minas Gerais provides technical information to the civil judge on environmental restoration. Their conclusions are cross-checked by other specialised bodies from the state of Minas Gerais (plaintiff of the civil action), the Pontifical Catholic University (PUC) as well as the Federal University of Lavras (UFLA), research institutions located in the state of Minas Gerais as well. Thus, the causes of the tragedy will continue to be investigated and the extent of its socio-economic impact measured. This should enable the judicial determination of the restoration at the end of the proceedings.

Brazilian law allows for extrajudicial agreements as well. For instance, the records also display that the public prosecutor's office, the state of Minas Gerais, Vale S/A and the water company agreed, extrajudicially, to build a new catchment of drinkable water, on the defendant's account. Public prosecution offices and the corporation signed other extrajudicial agreements as well, such as those for the adoption of mitigation and emergency measures, as well as action plans aimed at the protection and preservation of domestic and wild fauna, both directly and indirectly affected. In another example, in a labour lawsuit filed by the labour prosecution office, the judge ratified the agreed payment of material damages. Lawyers, unions and corporation representatives were at the hearing. The victims' families received compensations for payable labour rights resulting from the death of workers due to the rupture of the tailings dam of the Córrego do Feijão mine. Vale S/A agreed to pay indemnity for collective pain and suffering of approximately 106 million dollars. A committee composed by the labour court judge, the labour prosecution office and the public defender's office, with the participation of families through an appointed representative to the committee, will define the recipients of the payment.

The hearings mentioned above allowed institutional representatives to participate freely, while the judges of first-degree ruled as impartial moderators, capable of framing the debate in legal terms according to the rule of law. Thus, the stakeholders relied on their analytical skills to find concordance with law meaning and, consequently, to devise acceptable solutions to the damage caused

14 Retrieved from http://projetobrumadinho.ufmg.br/ (last accessed 23 May 2020).

by the dam rupture. According to Walgrave's definition of restorative justice (2012: 42), the objective of repairing as much as possible the crime-caused harm is its key characteristic. In this perspective, the civil law reasoning in the Brumadinho case focused on how to reach consensus to later produce 'restorative effects' as final goals.

Finally, after analysing the main features of the case and the commitment of the parties involved, the civil lawsuit judge emphasised that the destruction of companies – a real 'death penalty' – is not allowed due to the existence of an unwritten constitutional principle of company preservation. He also asserted that Vale S/A employs thousands of people and its activity plays a key role in the state economy, taking into consideration that the company is a relevant taxpayer. Given that Vale S/A is a global player, the corporation's actions impact the entire economy of the country, having operations in several economic sectors. Therefore, according to the civil lawsuit judge, on the one hand, the company is undoubtedly accountable for the restoration and, on the other, needs to keep going on, while paying for the restoration costs and following new safety patterns in its mining operations.

According to Walgrave (2012: 145), the maximalist option of restorative justice also conceives a reparation-oriented form of coercion, thus introducing the possibility of 'reparative sanctions'. In that case, enforcing such sanctions in a constitutional democracy requires a frame of legal safeguards. Walgrave (2012: 153) adds that reparative sanctions are not necessarily punitive when they are not meant to intentionally inflict pain but, rather, to serve as much as possible the reparative goal. One of the possibilities is a financial contribution to a victims' fund or to another social agency. Such judicially imposed obligations have a primarily reparative aim, which explains why he called these sanctions 'reparative', not 'restorative'.

Also for White (2017: 129-130; see also Conversations, this issue), reparative justice, with an emphasis on repairing harm within a generally more punitive context, would be more appropriate and effective in dealing with corporate crime than traditional sanctioning responses. However, repairing harm should not be conflated with 'restorative justice' *per se*. Reparative justice is different from restorative justice (in its conventional sense) precisely because 'repairing harm' can be imposed upon offenders (especially corporate offenders) without necessarily involving consensual agreement and/or 'conferencing' methods of negotiation. The reparative justice approach can provide greater deterrent effect than the usual deterrence-based approaches precisely because of what it demands of offenders – public exposure, enforceable undertakings and substantial commitments of time and resources to environmental remediation. Nonetheless, harm reduction and a punitive approach can operate in tandem and need not be seen as being in opposition. In the next section, we will discuss how criminal law professionals in the Brumadinho case are dealing with the same facts through other lenses.

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5 The criminal law approach to the mining tailings dam collapse

This section does not intend to censor *per se* any way of framing the object of the case study through the lower courts or the public prosecution office. However, it will confirm how criminal law traditionally ties the problematic situation to mandatory retributive results, thus excluding restorative ones. The analysis of the case reveals traditional criminal law as being incompatible with the agreements and indifferent to restorative efforts. Therefore, this section aims to empirically demonstrate how alternative solutions for the Brumadinho case did not emerge in criminal justice, even though the logic of restorative justice has helped to deal with the same tailings dam disaster in the civil proceedings.

Shortly after the accident, the criminal judge of first-degree ordered the provisional arrest of some employees at Vale S/A. To the first instance judge, criminal investigations would depend on the information provided by the imprisoned people. So, incarceration would be indispensable for elucidating why the tragedy happened. The Court of Appeal upheld the first-degree prison decree. But the Superior Court of Justice in Brasilia overturned the decision to imprisonment, allowing all the accused, although possibly accountable for the accident, to freely await the results of the judgment, referring to their full cooperation with the investigations. When deciding about two *habeas corpus*, the Superior Court ordered the release and asserted that the provisional arrest would be teratological or unreasonable. The cited court ruled that the involvement of the suspects in the alleged causes of the tragic events would not justify their provisional arrest. And the rapporteur justice (in charge of writing the opinion) stated that prison was unnecessary because there would be no risk to the normal development of the criminal investigation.[15]Later, on 14 February 2020, over one year after the collapse, the criminal judge received the indictment against sixteen individual defendants and also against Vale S/A and Tüv Süd Ltda. Regarding the latter, their employees attested (as independent auditors) before the rupture happened that the breached dam met international safety standards. The criminal law petition contains 477 pages[16] and describes how defendants, due to an allegedly careless decisional chain, could be held responsible for the following crimes: 270 first-degree murders, crimes against fauna and flora and polluting crimes. Thus, because the indicted persons may have not supposedly adopted the normative technical measures to prevent the tailings dam from breaking, there was a request to submit them to a grand jury, the feasibility of which (December 2020) needs to be yet accepted by the judiciary. The total sum of penalties requested by the accusatorial pleading amounts to more than 8,100

15 Habeas Corpus nº 495.038/MG (2019/0054058-8), retrieved from https://scon.stj.jus.br/SCON/decisoes/toc.jsp?livre=HABEAS+CORPUS+495.038&b=DTXT&p=true (last accessed 9 January 2021). Habeas Corpus nº 498.316/MG (2019/0030457-7), retrieved from https://scon.stj.jus.br/SCON/decisoes/toc.jsp?livre=HABEAS+CORPUS+498.266&b=DTXT&p=true (last accessed 9 January 2021).

16 See www.mpmg.mp.br/comunicacao/noticias/mpmg-e-pcmg-finalizam-investigacoes-sobre-o-rompimento-da-barragem-em-brumadinho-16-pessoas-sao-denunciadas-por-homicidio-qualificado-e-crimes-ambientais.htm (last accessed 13 May 2020).

Table 1 *Main differences between civil and criminal lawsuits' reasoning in the case study*

Two approaches to the dam tailings rupture	Civil lawsuit	Criminal lawsuit
Possibility of anticipatory agreement to victims' compensation / repairing ecosystems	Yes	No
Mandatory judicial proceeding	No	Yes
Possibility of negotiating on the sanctioning rules content	Yes	No
Minimum mandatory sanctioning by statutory law	No	Yes
Pattern sanction goal: social exclusion, pain and suffering	No	Yes

years in prison. In Brazil, the death penalty is unconstitutional. The maximum time a person can remain in prison is 40 years, regardless of the total sum of the penalties imposed. Thus, the requested penalty is much higher than the actually possible number of years of imprisonment.

The indictment against Vale S/A and Tüv Süd Ltda. includes the practice of possible crimes against fauna and flora and polluting. Maybe repeating the civil law claiming, the state public prosecutor's office also requested the establishment of minimum values for the repair of material damages, pain and suffering, and environmental and public damages caused to the whole society. There is also a claim to reimburse the expenses necessary for the implementation of investigations (forensic expertise, analysis of the material, effort and displacement of police officers, among others) and search and rescue work.

It is almost impossible to predict the outcome or the duration of such a massive criminal case. But it is possible to affirm vehemently that many years will pass before the final sentence, as there is empirical research showing that Brazilian criminal justice is usually slow when it comes to judging first-degree murders (Ribeiro & Couto, 2014).

Intertwining the previously made arguments to the ones made in the present section, here I compare both reasonings (see Table 1). The civil law context allows the parties to agree on the early payment of indemnities to the victims, as well as on actions aimed at repairing damages to the ecosystem. The civil process is not mandatory, but its dialogical stance, profiled by the magistrate and officially endorsed by the Court of Appeal, incorporated possibilities of negotiating the rules of sanctioning. The civil law does not provide for statutory minimum values but follows criteria prescribed by prevailing jurisprudence. The civil law reasoning allows reaching the traditional purposes outlined by restorative justice. In contrast, the Brazilian criminal law establishes mandatory minimum punishments. Still, the standard objective of punishment is to impose social exclusion, pain and suffering.

6 The systemic theory of modern penal rationality and the epistemological obstacles to the evolution of criminal law sanctions

In this section, I discuss the reasoning of criminal law that traditionally prevails in the West, as a rule, to explore what distinguishes the criminal sentence from others. My goal is to use a theoretical framework to critically analyse the description offered in the previous sections, as well as to set the stage for the further development of propositions. So, why do the traditional criminal law reasons (treated as a unit of analysis) result in penalties equivalent to social exclusion, pain and suffering? And what may be the relevance of these insights for our understanding of different ways of dealing with environmental harm? To answer these questions, I rely on a theory based on Luhmann's social systems theory: the systemic theory of modern penal rationality, developed at the Canadian Chair of Legal Traditions and Modern Penal Rationality[17] for the adult criminal law system of Western countries, held by Alvaro Pires. Pires (2004) affirms that the way of thinking about criminal justice has organised a peculiar punitive system, which differs from other branches, such as civil, administrative, family law, etc., called penal rationality. Updated in the West, from the second half of the 18th century, it qualifies as modern penal rationality (henceforth MPR). Thus, the systemic theory of MPR, taking as a parameter the punishment systems of some Western countries, aims to address a specific research question: which are the obstacles related to the practical and institutional reform of modern criminal law? In particular, the theory seeks to answer why there remains a recurrent (and unsuccessful) nature of criticism on the use of prisons. It also addresses the difficulties in legitimising, generalising and restoring alternatives to social exclusion, pain and suffering of the guilty person. Further, MPR attends to not only the debate on the concept of crime and the boundaries of criminal law, which are dealt with by the social sciences, legal doctrine and theory, but also to the history of modern criminal law sentences and the ideas underpinning them (Garcia, 2013).

Under an archaic style of thought, still dominant in the present day, criminal law prescribes in advance the mandatory sanction applicable to legally prohibited conduct, presenting a normative telescopic framework as follows: the one who does 'X' can or must be punished with 'Y'. Combinations of two distinct levels of rules dominate the penal system: some referring to behaviour and others referring to sanctions and the penalty of social exclusion, combined with the imposition of pain and suffering (Pires, 2004: 41).

The first part of the MPR framework discusses the founding theories of punishment in modern criminal law, mainly related to: retribution, deterrence and rehabilitation in prison. These theories attempt to provide answers to the following questions: Why punish? Who and how to punish? How effective is punishment? In short, we must punish to reward evil with evil, to rehabilitate the offender, to deter criminals and other citizens from committing crimes and,

17 See www.chairs-chaires.gc.ca/chairholders-titulaires/profile-eng.aspx?profileID=588 (last accessed 15 December 2020).

finally, to denounce illegal behaviour. These theories govern the decision-making process and indicate to authorities the available reasoning and grounding penalties and preclude the emergence of alternative measures and other philosophies of intervention. Deeply rooted in Western criminal and legal culture, they are the earliest theories of punishment and the most used ones in our criminal justice systems, thus institutionalising through legal discourse the reasoning recognised by current criminal law.

Thus, criminal law incorporates some realities of this penal system in the way it grounds the decision-making process behind sentencing. Consequently, the criminal justice system claims a specific social function and an exclusive ability to protect society. However, punitive theories produce converging divergences; they have different reasons for justifying criminal sanctions, but they repeatedly point to prison as a necessary ultimate form of punishment in many situations (Garcia, 2013).

The MPR style of sentencing promotes a hostile, abstract, negative and atomist form of justice. In the words of Pires (1998: 79), it is *hostile* because it portrays the offender as an enemy of the entire group and because it seeks to establish some kind of necessary (or ontological) equivalence between the value of the object protected by law and the level of suffering produced by the offender. It is *abstract*, because the (concrete) suffering caused by punishment is recognised, but conceived as capable of creating an intangible moral good (e.g. restoring justice through inflicting pain, 'strengthening the morality of honest people', etc.) or even the invisible and practical good future (deterrence). It is *negative*, since these theories exclude any other sanction to reaffirm the law through positive action (such as compensation) and stipulate that only concrete and immediate damages caused to the infringer can generate welfare for the group or reaffirm the law. Finally, it is *atomist*, because punishment – at best – is designed not to worry about concrete social ties between people, except in a very secondary and incidental way.

The second part of the theory of MPR refers to evolutionary problems of criminal law and conditions of emergence, selection and stabilisation of innovative ideas. Thus, theories of punishment represent epistemological or cognitive obstacles to building up alternative sanctions and do not favour reducing the use of incarceration (length and frequency) (Garcia, 2013: 43). To summarise, Pires argues that MPR is a systemic sociological theory that, firstly, describes the emergence of a system of ideas formed by (modern) punishment theories that have been institutionalised. Secondly, the theory presents such idea systems (or such theories) as an epistemological obstacle to the reconstruction of the criminal law system as it was differentiated and built in Europe and the Americas (Pires, 2004: 11). In the following section, I present a way of thinking outside the 'MPR box', in order to highlight an innovative approach that is also relevant for dealing with environmental harm and crimes.

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7 Legal sentencing and environmental restorative justice reasoning

The MPR theory explains how judges mobilise idea systems of criminal law to justify punishment in terms of imposing social exclusion, pain and suffering on convicted people. This systemic theory of MPR also clarifies the reasons for the lack of restorative responses in criminal justice. Relevant questions related to the ruling of the argumentative activity are then the following: what are the main criteria used by legal professionals in their decisions? Is there an unbreakable parameter that prevents the adoption of sanctions in harmony with the principles of restorative justice?

As a rule, in the sentencing process, judges refer mainly to elements that can be found in ordinary legislative acts. They do not always base their decision-making process on other cognitive sources, which go far beyond statutory law. However, in order to improve the operational functionality of criminal codes, we must understand criminal law in its social context, as a matter of social and political practice. Also, criminal law can be framed as a result of a legislative process that reaffirms the hegemonic forces of society as they operate in parliament. In this perspective, the incriminating norm arises from conflicting interactions that occurred during its elaboration process. Therefore, not only must we be aware of what the essential normative criteria are when developing incriminating rules, but we must also uphold constitutional principles, for example, as individual guarantees to challenge the standards-setting of punitive state interventions (Tavares, 1992: 75-76).

There is no room to contrast civil with criminal law reasoning minutely or describe all possible sanctions applied in both cases. In a short case study like this, I refer to a crucial issue, identified by Machado and Pires (2016). They analysed the cultural bases of the mandatory minimum punishment. In a comparative study involving Brazil, Canada and France, they addressed this issue as an intervention of the legislative (political) system in sentencing practices. Their research clarifies in a particular way that the penal sanction should not necessarily be imprisonment and that there are many alternatives to incarceration. For the authors, the hermetic legislative models brought by the political system to the attention of the judges forcefully drive criminal law decisions towards the social exclusion of individuals. Thus, the mandatory minimum punishment would be a way of expressing the hierarchy of the fundamental values of society, and one of its main consequences is the reproduction of prison. Thus, still in the authors' opinion, if legal professionals conclude that the minimum prison time provided by statutory law is abusive for a given case, after a rigorous analysis of its peculiarities, the judiciary may interpret the (un)constitutionality of this mandatory minimum punishment. Based on constitutional principles (see further), this reasoning can trigger possibilities for judicial determination of alternatives to supposedly unnecessary incarceration, when the facts of the case permit. The authors' approach allows us to propose a malleability to criminal law reasoning. That would help to overcome binding penalties and to build restorative sanctions in a more open and sophisticated

sense. Also, it would address the defendant's right to fair, individualised and adequate punishment.

As we all know, the 'right' punishment according to retributive theory may not necessarily offer a fair solution to the problem. Both restorative justice and the broader framework of 'responsive regulation' opt for contextual justice (Braithwaite, 2002b: 158). Thus, it is important to bridge the wide gap between the normative ideal and political practice (Braithwaite, 2002b: 166). Furthermore, the difference between the seriousness of a crime, as defined in punitive proportionality, and the seriousness of the harm, as defined in a restorative understanding, may be purely theoretical. Hence it is difficult to use the seriousness of a crime as a criterion on its own to set out a particular upper limit for an admissible amount of reparative efforts. In fact, the setting of reasonable upper limits for reparative sanctions needs to be based on experience. The publication of jurisprudence is the best way to achieve this (Walgrave, 2012: 164).

That being said, I intend to explore the possibilities for the courts of law, since they are central and hegemonic for interpreting constitutions, which contain the structural coupling of the political and legal systems (Luhmann, 2004). According to the Brazilian Constitution,[18] the law shall regulate the individualisation of punishment and shall adopt the following penalties, among others: deprivation or restriction of freedom; loss of assets; fine; alternative rendering of social service; suspension or deprivation of rights. To the Brazilian penal code in force, the trial court judges must determine the type of criminal punishment (imprisonment, fines, community services, etc.), as well as the applicable amount or its duration in time. Furthermore, the chosen sanction must be necessary and sufficient for reprobation and crime prevention. As a rule, the Brazilian criminal law establishes minimum and maximum limits, and the judicial decision must fall within the legislative boundaries. Consequently, the existence of a mandatory minimum punishment in statutory law implies legislative limits imposed on the judge's discretion both to select alternatives to incarcerating sentences and to set the appropriate amount.

There are, however, precedents of the Brazilian Federal Supreme Court that declared null some ordinary statutory provisions, in case of disagreement with the constitutional principle imposing the individualisation of the punishment. The jurisprudence affirms that matters concerning the enforcement of criminal law must follow the timbre of the personalisation during its concrete applicability, for the 'Constitution desires the individualisation of punishment'.[19] In another precedent, the case rapporteur, one of the justices of the Supreme Court, decided that when judicially determining the sanction's extension, the first-degree judge has unavoidable discretion in deciding between prison and an alternative to incarceration. However, such a judicial option has its boundaries

18 Art. 5º, XLVI.

19 STF, Writ of Certiorari 596.152/SP, decided on 13 October 2011, retrieved from www.stf.jus.br (last accessed 28 May 2020).

and observes the 'quadrants of the sanctioning alternative'.[20] In other words, the Supreme Court has already recognised that statutory law cannot prevent punishment individualisation, but the Constitutional Court has not yet succeeded in reducing the sanction below the minimum legal punishment.

The idea of responsive regulation presented by Braithwaite (2002a) is that law enforcers should be responsive to how effectively citizens or corporations are regulating themselves before deciding whether to escalate intervention. Furthermore, responsive regulation requires us to challenge the legal presumption that, if guilt is proven and the law foresees imprisoning, offenders must go to jail without sharing social life. To Braithwaite, even in the most serious matters, we stick to the presumption that it is better to start with dialogue. In a recent paper, Braithwaite (2017) affirms that upper limits on criminal punishments must be bright line constraints to limit excesses of arbitrary power; lower limits should be adjudicated with discretion, guided by republican principles. The author also points out that the main challenge that lies ahead for restorative jurisprudence is to craft legal reforms that allow restorative justice to become a principle or a set of principles, one that can trump rules that would otherwise mandate punishment. Braithwaite (2017) also quotes that, for example, the appellate courts of New Zealand and Canada have already taken some preliminary steps in this direction.

Thus, constitutional jurisprudence on the individualisation of punishment could ground restorative sanctions to substitute incarcerating, even if statutory law provides for mandatory minimum imprisonment. Moreover, instead of focusing on the seriousness of the crime committed to imposing the quantity of equivalent punishment, we should alternatively shift our attention to another type of analysis. Perhaps a useful guidance may be to apply legal coercion inversely proportional to the quality of the restorative efforts. Thus, the more restorative justice, the less retributive punishment.

According to the Brazilian Constitution,[21] the National Council of Justice (CNJ, in Portuguese) may issue regulatory acts within its jurisdiction or recommend certain measures. A chief challenge in question is to improve the management of criminal justice by applying alternative sanctions and investing in restorative justice in order to reduce incarceration and recidivism rates. The CNJ also suggested the establishment of mechanisms to minimise feelings of impunity and insecurity and, finally, the adoption of a mindset of criminal justice aligned with social justice.

In this regard, the CNJ issued a resolution on 25 June 2019.[22] In its first article, the resolution stipulates that the judiciary should adopt, as institutional policy, the promotion of the application of criminal justice alternatives with a restorative focus, thus replacing the deprivation of liberty. The CNJ also defined

20 STF, *Habeas Corpus* 97.256/RS, decided on 01 September 2010, retrieved from www.stf.jus.br (last accessed 28 May 2020).

21 Art. 103-B, Para. 4, I.

22 Resolution nº 288 de 25/06/2019, retrieved from https://atos.cnj.jus.br/atos/detalhar/2957 (last accessed 19 May 2020).

that alternative sanctions are measures of intervention in cases of conflicts and violence, differently from incarceration, aimed at restoring relations and promoting a culture of peace, based on accountability with dignity, autonomy and freedom. The resolution provides for some principles which are important to restorative justice, such as the principle of subsidiarity (as opposed to mandatory models) of criminal intervention and turning people accountable by maintaining their links with the community. In addition, it envisages horizontal and dialogical mechanisms for conflict resolution, based on participatory solutions and adjusted to the realities of the parties. It also provides a premise for criminal justice to restore social relations, repair damages and promote a culture of peace.

The enactment of the resolution with a 'soft law' status produces a twofold perspective. On the one hand, criminal case-law may ignore its guidance. That equals to maintaining the retributive thinking dominant to date. Therefore, the victims would continue without having a central position in settling their issues. The communities and the offenders would not be an active part of problem-solving. On the other hand, the criminal decision-making process related to the Brumadinho collapse, as long as it is based on constitutional principles hierarchically superior to ordinary law, could refer to that resolution as the law for ruling the case. For Luhmann (2004: 76), positive law is supposed to be validated through judicial decisions. Indeed, the evolution of legal reasoning is perhaps an inherent right of societies; therefore, no one needs to be limited by understandings that fail repeatedly. Thus, the ruling's evolution depends on institutionalising a mechanism that neutralises MPR's impact on the law system. Then, updating the discursive structure of the judicial decision may arise from the selection that legal professionals make to point out the solution that fits best. As a rule, this is what is expected of a court system: better options in deciding. This way, judgments with a restorative approach can arise gradually and, eventually, supersede the ones with retributive features.[23]

As far as this article is concerned, alternatives to incarceration based on restorative justice principles are fair for the Brumadinho case. Indeed, the public prosecutor's office is going to face quite complicated legal work to demonstrate, beyond any reasonable doubt, pieces of evidence to condemn people accused of committing 270 first-degree murders. Undoubtedly, it will last a long time, encountering many legal difficulties in the institutional arrangements of a Brazilian Grand Jury trial. And there is the tradition of a lack of criminal accountability in cases like the one examined. Many authors highlight the difficulty of punishing those accused of corporate environmental crimes (Acosta, 1988; Bisschop, 2010; Grandbois, 1988; Lippel, 1988; White, 2017).

23 A former mining tailings dam collapse similar to the Brumadinho case happened in the Stava valley (Municipality of Tesero, Province of Trento, Italian Alps). On 19 July 1985, a mineral waste facility made up of two tailings dams collapsed. Ten people were convicted of multiple manslaughter and culpable catastrophe. Nevertheless, the prison sentences were eventually remitted, and none of the persons sentenced was actually sent to prison. I mention this case to demonstrate that punishment must not necessarily be incarceration, whether restoration took place or not. Retrieved from www.stava1985.it/legal-liability/?lang=en (last accessed 5 January 2021).

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Table 2 *Main differences between modern penal rationality and restorative penal rationality applied to environmental justice*

Modern penal rationality	Restorative penal rationality applied to environmental justice
Telescopic normative structure	Open and dialogic normative structure
Hostile	Empathetic
Abstract	Concrete
Negative	Positive
Atomist	Social
Social exclusion, pain and suffering	Inclusive and pedagogic
Retributive	Restorative efforts and responsive regulation
Timeless	Contextual
Mandatory minimum punishment by law	Individualisation of punishment

Further, the Superior Court of Justice, which occupies the second position in the Brazilian judiciary hierarchy, has already determined that the suspects' provisional arrest was inadequate, even in the first half of 2019. The accused professionals do not have previous criminal records. Therefore, if the Superior Court of Justice considered provisional imprisonment to be abusive right after the facts, it will be more challenging to justify detention after many years. For this case, the biggest challenge is not determining guilt but finding, in a reasonable time, appropriate sanctions as responses to corporate crimes against many people's lives and ecosystem integrity. Perhaps restorative sanctions can respond more effectively, avoiding inherent frustrations of criminal proceedings without a predicted end.

Thus, as it may be seen, changes to the penal system's fundamental characteristics are necessary, related to the purposes of punishment, adversarial procedures, stigmatising effects and the premise that criminals are radically different from 'honest' citizens (Jaccoud, 2007: 3). In various countries, restorative justice practices, such as penal mediation, are possible at all stages of the criminal justice process and for all types of crime and at the Appellate Court level. Therefore, regarding the case study, I suggest that altering the characteristics of the legal discourse that governs the justification for punishment may have a reflexive effectiveness in modifying the identity of the sanction, as summarised in Table 2. The proposed restorative penal rationality may also apply to environmental justice.

8 Conclusion

In this article, I have tried to explain how two different idea systems produce restorative or retributive responses in the Brazilian judicial scenario, even when dealing with the same facts. In order to achieve restorative responses, one should

not just focus on the gravity of the situation, the space in which the debate takes place or the types of professionals involved. These are not the main elements that explain the achievement of innovative results. The empirical data clarify that the power to mobilise and then apply legal ideas in harmony with restorative justice makes the difference to establish a maximalist approach.

A close reading of the civil lawsuit reveals a positive assessment of restorative efforts, resulting from decision-making processes that mobilised some legal idea systems. Evidence from the civil proceedings shows that immediate and effective performance of the trial court judge, combined with the corporation's discourse on accepting its accountability, has undoubtedly helped to produce restorative responses. The judicial hearings provided, in a dialogical approach, the legal basis for the continuous, albeit initial, reparation of the damage suffered by the victims and the restoration of the harms caused to the fauna, flora and ecosystem. Restorative efforts objectively pursued to provide relief for victims and to restore environmental damage elucidating an unwritten principle emerging from the application of the Brazilian Constitution. Furthermore, the civil judge ruled for preserving the corporation's economic and social activities.

Therefore, a properly trained first-degree civil judge, allied with lawyers, public defenders and prosecutors willing to talk to the responsible company and adopt a solution centred on participation and restoration, proved its essential value. Likewise, academic and technical knowledge has to be included in the process in order to measure the necessity, levels and degree of repairing. Therefore, it is crucial to further invest in research and in the training of legal professionals (and others) to deal with innovative principles of restorative justice in various scenarios and, thus, contribute to an environmental justice adequate to the current needs of societies.

Conversely, on the criminal law side, retributive reasoning still prevails within legal records due to socially adjusted standards among legal professionals. The discursive structures of mandatory punishment do not allow changing the way of punishing, blocking alternative sanctions to imprisonment. This article pointed out the obstacles in current criminal law sentencing that prevent restorative interventions, suggesting a change in the textual practices of conflict resolution.

As already presented, the principles that govern civil actions do not apply to criminal justice today. There may be crucial factors that hinder the responses of restorative justice to the Brumadinho case, such as the lack of dialogue to negotiate the type of penalty and then adjust it to the socio-legal context. An insistence on retributive thinking only reproduces, in the abstract, social exclusion, pain and suffering, instead of effective alternatives to imprisonment. Therefore, the principles that govern the civil proceedings can be parameters for the construction of meaning for restorative responses also in criminal justice. The bases for the suggested change are identified, broadly speaking. Restorative justice conferences in cases of environmental crimes are already a reality, for example, in the jurisdictions of New Zealand and New South Wales, Australia (Al-Alosi & Hamilton, 2019; see also Forsyth et al., this issue; Hamilton, this issue).

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Arguing that the Brazilian National Council of Justice establishes a restorative justice approach for criminal decisions provides infinite possibilities to be explored. To me, the *sine qua non* condition for creating restorative responses is an *a priori* legal discussion that allows legal professionals to negotiate the desired restorative goals and then determine the sanctions applied, without mandatory minimum punishment by law. Based on the constitutional principle of the individualisation of sanctions, law operators must be aware of possible alternative solutions. Hence, by reprogramming the logic underlying criminal law decision-making processes, we may change the sanctioning rules arising from modern penal rationality, so as to develop its identity towards responses of restorative justice to environmental harms and crimes as well.

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