



**AN INTERDISCIPLINARY FRAMEWORK
TO EXPLAIN ECOLOGICAL CRIME**
A CASE STUDY OF THE BP DEEPWATER HORIZON
OIL SPILL

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Our drive to achieve economic development and growth is driving our planet to an unprecedented level of ecological destruction. The structural forces of capitalism together with a culture of consumerism is pushing the environment to its limits causing climate change, pollution and threatening the wellbeing of humanity and the ecosystem. This thesis seeks to reach a better understanding of harms and crimes committed against the eco-system. This will be achieved by applying a theoretical framework that incorporates criminology theories and theories from other disciplines on the famous case of BP Deepwater Horizon Oil Spill in the Gulf of Mexico. The paper shows that it is necessary to explore theories outside of traditional criminology to demonstrate how the root cause of environmental crime is inherently linked to capitalism.

Keywords: corporate crime; criminology theory; environmental crime; green criminology; treadmill of production.

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1. Introduction

It was about 15 million years ago that great apes, including humans appeared on earth, but it is only within the last few hundred years that the world has seen the fastest growing ecological destruction threatening the existence of the world (Lynch *et al.*, 2013). The negative impacts of pollution and biodiversity are not a recent occurrence. In 1925, big oil corporations adopted toxic-lead as an anti-knocking agent in petrol to improve performance, a strategic move which locked-in this technology causing a level of pollution that is still to be discovered (Lynch *et al.*, 2013; Persson *et al.*, 2022). Scientists are still studying the large concentrations of lead that for many years have been deposited in the ocean and analysing the current effects that are causing aggressive pollution into the ocean interiors (Persson *et al.*, 2022). The presidential address of 1999, to the American Society of Criminology, strongly suggested that the future of criminology lies in environmental crime adding ‘new definitions of victims to include species other than human and a definition of offenders to include those who pollute for conveniences...[and] for profit’ (Ruggiero & South, 2013:362). According to the political and socio-economic environment in which we find ourselves, the highest valued and represented interests are those that feed the structural economic organisations (Lynch, 2020). It is a value system putting humans at the top of the hierarchy that made humans feel superior to non-human species creating a sense of entitlement perpetuating a practice of dominance and harm towards non-human species and normalising such behaviour (South, 2014). This is a central theme in the development of green perspective (Ruggiero & South, 2013). Additionally, the value placed on economic growth that creates a major global trade has led to further disregards and mistreatment of the non-human species that are both legal and illegal (South, 2014). Therefore, attention must be drawn to the consumer-like behaviour and trends that promote waste and a culture of disposable and instant absolution powered by marketing and media (South, 2014). The history of capitalism is the foundation for understanding ecological crime (Lynch, 2020).

The aim of this thesis is to provide an interdisciplinary theoretical framework that provides an explanation for the harms and crimes committed against the eco-system. The first section poses the research question and provides a background of the topic within the field of criminology. The next section presents the methodology used, reasons for applying a case study method, how data was collected and ethical considerations. The third section will present the theoretical framework for environmental and ecological crimes, followed by the case study of British Petroleum Deepwater Horizon Oil Spill (BP). The final section will discuss and conclude the findings of the research.

2. Research Question

This paper asks: *How can criminological theories help explain environmental and ecological crimes?*

Crimes that affect or damage either the environment, any species or the eco-system are considered to fall within the sphere of green criminology (Ruggiero & South, 2013). This field has expanded the narrow sphere of traditional criminology that draws on theories from other disciplines, with such crimes falling within categories of ‘green deviance’, ‘green social control studies’, or ‘green law’ (Lynch, 2020). However, green criminology has not reached the same level of legitimacy as have other disciplines that study environmental harms, even though green crimes and victims of green crimes outweigh the number of street crimes and victimisation (Lynch, 2020). Harms to the ecosystem should be considered criminal in the eyes of environmental law, classifying harm as any form of degradation or destruction of the ecosystem (White, 2018). So far, much of the regulatory framework in environmental protection has been focused on the rights of humans from a human-centred or anthropocentric perspective. An example of this perspective can be seen in the Council of Europe’s (2012) *Manual on Human Rights and the Environment*, which legislation and case law considers the impact of environmental changes on humans rather than the impact that humans have on the environment (White, 2018). Interests of non-human environmental entities’ should be treated as significant and deserving of respect and formal recognition, as are the rights of humans, a concept known as ecocentrism (White, 2018).

Although green criminology has been in existence since 1990, its’ definition is not yet formalised necessitating the use of typological approaches to aid in its’ definition (Lynch, 1990). For example, one of its’ original classifications was defined as “(1) harms caused to living beings through the creation of environmental hazards; (2) existing at the local and global levels; (3) outcomes tied to corporate and state crimes; and (4) as the subject matter of radical criminology and political economic theory/analysis; and its concern with class analysis” (Lynch, 1990:11). Green crimes have also been defined as acts committed by powerful institutions (i.e. government, corporates or ordinary people) that cause harm against humanity, the environment and non-humans (Beirne and South, 2007). This definition is important for the purposes of this study for it highlights the power dynamic between the weak and strong and the fictional levels of hierarchy. Additionally, the social construction of green crime reflects

the conflicting positions brought by institutionalised thinking encompassing scientific knowledge, corporate interest, and victims' interest (Beirne & South, 2007).

3. Methodology

In adopting the case study approach, this thesis uses a qualitative research analysis. This method is one of the most suited methods. It examines internal and external explanatory factors within a diverse theoretical framework that connects different paradigmatic camps formed within the social science (Blatter & Haverland, 2012). Case study research allows for an in-depth understanding of a real-life phenomenon that sheds light on the subject being studied. Due to its explanatory nature it can answer the how and why questions that assist in understanding the relationship between economic development and ecological disorganisation incorporating a varied theoretical framework (Hyett *et al*, 2014). Findings from the case study will also offer a wholesome understanding of the perceptions and motivators observing the interaction of such variables without needing to use controlled variables (Blatter & Haverland, 2012; Doodley, 2002). A single case study might seem to circumvent the criteria of generalisability of research, that is offered by studying multiple cases, however it is argued that a single case study is capable of providing analytical generalisations rather than statistical generalisations (Yin, 2013).

Applying a qualitative method gives the researcher a level of artistic license and freedom to nurture creativity, flexibility and innovation; however, the researcher bears the responsibility to justify this methodological approach (Hyett *et al*, 2014). The method design must meet methodological rigor, validity and reliability standards. This entails compatibility between methodology and study design. Case selection requires that the studied case and sampling technique is representative. The case “should either be similar to those previously studied by others or should deviate in clear, operationally defined ways” (Yin, 1994:25). To pass the tests for validity and reliability the writer must pay attention to the design of the research study and processes used for collecting and analysing the data, and discussing of findings (Herling *et al.*, 2000). Validity is achieved by selecting the best method for the concepts being studied (Blatter & Haverland, 2012; Doodley, 2002). Internal validity demonstrates that the conditions being observed lead to other conditions which is discovered through triangulating various pieces of evidence (Yin, 1994). A clear line of evidence must be followed. On the other hand, external validity will determine whether findings can be generalised beyond the selected case study (Yin, 1994). This can be achieved by relating findings to other literature. Reliability deals with

documenting procedure that ensures research is capable of being replicated. The writer must maintain an impartial attitude to the facts of the case to allow the reader to make his or her own conclusions (Doodley, 2002). This is done by giving a good account of a real-life event offering a detailed setting, parties involved, events, problems, and conflicts without amending the facts of the case (Doodley, 2002). In conclusion, this method allows for a thorough examination of contemporary phenomena and associated context that are not always clearly visible when using other research methods (Blatter & Haverland, 2012; Doodley, 2002).

The case of BP is selected not to provide a detailed account of the spill itself but to provide an overview of historical political-economic interrelationships of state and corporate structures. It also reflects how industry related practices seeks to achieve economic development whilst perpetuating ecological degradation of criminological importance. The motivation for selecting this case lies in analysing the largest oil spills in U.S history, which makes it an environmental crisis of significant ethical and criminological importance. In addition, the oil industry inherently highlights the principles that this paper seeks to unravel. Thirdly, BP exemplifies how organisational thinking promotes normalisation of harmful practices. Further providing a good account of the victims of the business practices that cause ecological harm. These factors make the BP case an ideal case to research corporate practices and ecological crime.

The BP as a single case study is explanatory in nature and is the most appropriate method for this paper.

4. Data Collection

Data was collected from academic journals offering a myriad of different disciplines studying the subject of ecological disorganisation, economic development and green criminology. The data collected was analysed using a thematic analysis, which analyses the narrative of data selected. Thematic analysis is used when an abundant amount of narrative data is available and requires that such data is sorted and classified based on the most prominent themes addressing the research question (Yin, 2013). This approach is consistent with ensuring internal validity of case studies (Yin, 2013). Themes are classified according to the theoretical approach that has been selected for this study. Finally, to achieve inter-coder reliability an analysis of the data was conducted independently which findings were compared in order to achieve consensus on the data.

5. Ethics

This research paper uses data gathered from open sources that are available to the public. No personal sensitive data was used, other than the information pertaining to the BP case, where some articles might link interviews with individuals for their involvement in the case. This information is however “notorious” since it has been highly publicised. I put forward that this study will not cause any harm to anyone, and information provided will not in any way harm anyone mentally, psychologically, socially, or financially. Consent is not applicable to this research study. And finally, all information contained in this study does not contain any confidential information or any information that might put anyone in jeopardy. In accordance, I submit that the fundamental principles for ethics are not in conflict with this research study, thus it does not require the approval of the Faculty Ethics Council.

6. A Theoretical framework

Under the ‘Umbrella’ of Green Criminology

It is the increasing level of damage on the environment and disruption to the eco-system that is calling scientists from all disciplines into action (South, 2014). Criminological theories have been useful in highlighting “the plight of the powerless, marginalised and voiceless...” (South, 2014:7), which has led to an environmentally sensitive criminology. This sub-field of criminology, although mostly referred to as ‘green criminology’ has no universal consensus on its name, however it generally describes the study of crime, harm and injustice against the environment and non-human species (White, 2008; South, 2014).

A green perspective, rather than one theory, is more suited in providing insight into multiple diverse theoretical positions covering a diverse area that is constantly developing, lending itself to be applied as a framework (South, 2014). A perspective can be associated with a number of theoretical positions and schools making green criminology all-encompassing acting like an umbrella (Ruggiero & South, 2013). For example the term ‘environmental criminology’ is used to describe the study of harms and threats, legislation and research in relation to the environment (White, 2008). The term ‘eco-global criminology’ can be used for studies that are informed by “ecological considerations and by critical analysis that is worldwide in its scale and perspective...” (White 2010:6).

There are other approaches within criminology that study the same issues and problems. Conservation criminology, as such, tackles the same problems as green criminology but from an “evidence-based practice in addressing environmental crimes and risks integrating criminology, criminal justice, environmental and species conservation, natural resource

management, and risk and decision science” (South, 2014:8). Eco-crime provides legal definition of environmental crime, as well as sociological analyses of those environmental harms not necessarily specified by law (Walters, 2010 in South 2014:8). White (2010) on the other hand uses the term ‘eco-global criminology’ to refer to ecological concerns through a global analysis proposing an inclusive definition of harm that is multidisciplinary. Lastly, environmental criminology is considered a ‘place-based criminology’ that ‘describes relationships between the incidence of crime and the spatial features of the built and urban environment” (South, 2014:8). Environmental harms also share interests with cultural criminology, which analyses how a culture of consumerism informed by marketing and media images have fuelled unprecedented levels of demand causing social and environmental harms (Brisman & South, 2013; Ruggiero & South, 2013; Stiglitz, 2012).

This research will incorporate perspectives from different disciplines that can be integrated under the general umbrella of ‘green criminology’ to better understand the basis for ecological disorganisation.

A Rational Choice and Deterrence Theory

This theory suggest a cost-benefit analysis, it follows that a crime would be committed if the benefit of committing the crime outweighs the perceived costs (Stretesky, 2006). However this analysis cannot always be applied equally as a number of cultural and structural constraints always come into play. Research on rational choice and corporate crime focuses on perceptions of cost and benefit analysis varying across firms and employees (Stretesky, 2006). Within the rational choice framework we see the development of the deterrence theory, bringing in the element of fear of legal sanctions that motivates obedience with the law, enforced by certainty, severity and punishment (Stretesky, 2006). Some researchers have focused on the concept of objective deterrence whilst others have looked at subjective deterrence – actual level of punishment versus perceived punishment.

An interesting study conducted by Paternoster and Simpson (1996) tested the rational choice theory on ninety-six graduates enrolled in a master’s programme in business administration. The study was set to look at the student’s attitude toward formal and informal sanction threats. The questions put to the students were fictitious scenarios that resembled crimes of price fixing, bribery, manipulation of sales statistics, and environmental dumping. The corporate manager was the main perpetrator in all the scenarios and the students were asked to approximate the probability that they would behave in the same way as the manager

given the same situation. The dependent variable in the study was the student's estimates of likelihood that they would violate the law. The independent variable was measured according to the perceived probability of being detected and punished, including formal sanctions such as regulation, criminal or civil sanctions, and informal sanction such as social embarrassment and loss of occupation. The study found that if reporting of intentions to commit a crime was part of the firm's culture then respondents were more likely to report such intentions too (Paternoster & Simpson, 1996; Streteski, 2006). The study also found that there was a relationship between deterrence and morality (Paternoster & Simpson, 1996; Streteski, 2006). In other words, deterrence would not play a role when morality is inhibited. Thus, deterrence seems likely to be more effective if moral inhibitions are weak (Streteski, 2006). Another study conducted by Piquero, Exum and Simpson (2005) examined how the constraints of the individual's personality plays a role in shaping the decision-making process, by integrating desire-for-control into the rational choice model of corporate crime. The study concluded that there was a relationship between desire-for-control and sanction. These studies show that deterrence and corporate crime does not seem to be positively correlated to traditional enforcement efforts (Piquero *et al*, 2005).

Organisational Theory

This is premised on the process of socialisation in organisational imperatives that maximise efficiency (Beamish, 2000). Accordingly, efficiency is achieved by implementing programmes and guidelines that guide and teach a system that will achieve a designated function (Beamish, 2000). It is through this system that individuals find a common ground for the group and environment that creates a common rationality (Beamish, 2000). Beamish (2000:479) addresses the difference between data and information, and states that 'information is data transformed to aid in choice-making'. Data is informed through social structure and culture which is then converted into information (Beamish, 2000). Organisational frameworks therefore can put meaning into data that informs the choice-making process of those in the organisation (Beamish, 2000). Resulting in an internal organisational culture that can consistently and pervasively shape beliefs and values of those belonging to the structure where for those outside the structure such perspectives might seem unrealistic (Beamish, 2000). Beamish (2000) additionally emphasises that routinised organisational process has a powerful effect on the individual's cognition through consensual validation, information that is consistent with already held positions. In other words, organisational culture is a powerful

structure that can manipulate data into information providing a rationalisation mechanism for the actor especially when such information has been consistently and routinely held previously.

Routine Activity Theory

This theory suggested that crimes occur when a motivated offender finds a suitable target in the absence of capable guardians (Cohen and Felson, 1979). Although the theory was originally applied to direct contact crime its' development has been extended to include white-collar crime (Brisman, Carrabine, & South, 2017). A study conducted on financial fraud found that crimes of fraud were perpetuated by a culture of performance coupled with bullying and harassment (Chan & Gibbs, 2022). Additionally, such crimes require a level of knowledge of the control system of a corporation, highlighting the probability of such crimes being consistently more present in those holding a position of power (Chan & Gibbs, 2022). The study highlighted that the pressures within the organisation had an effect on "fraud-inhibiting voice" and a crime was more likely to occur if there was an existing opportunity rather than through motivation and rationalisation (Chan & Gibbs, 2022).

Political and Economic Theoretical Perspective

This theoretical perspectives examines the relationship between environmental harms and the processes of production, economic growth and capital accumulation supported by economic interests of corporates and the state (Ruggiero & South, 2013). It is this economic interest, and a 'business as usual' attitude, that hinders the need to adopt more urgent and realistic mechanisms to tackle ecological disorganisation causing climate change (Lynch et al.2010; Ruggiero & South, 2013; Kramer & Michalowski, 2012). The model of 'treadmill of production' analyses this relationship (Schnaiberg, 1980; Long *et al*, 2012). A key element that drives the treadmill of production forward is the world's most powerful index - Gross Domestic Product (GDP) (Ruggiero & South, 2013). This artificial number, that originated during WW2, was used to rank countries hierarchically and compare their economic performance against the enemies 'allow[ing] the conversion of the civilian economy into a war machine without hampering internal consumption, which turned out to be a major advantage in gathering revenues for the war' (Fioramonti, 2013:10). Once the war ended GDP became a useful propaganda tool to demonstrate American's superiority over the Soviet Union in terms of economic performance (Ruggiero & South, 2013). In 1932, Simon Kuznets collected a series of statistical indicators that showed total productivity output of individuals, corporations and

public agencies; our current understanding of GDP (Ruggiero and South, 2013). The growth of GDP ignores informal economies and accounts mainly for expenditure of more affluent consumers creating a clear divide between the developed and developing countries dependent on informal economies (Ruggiero & South, 2013). As a result, developing countries have had to resort to selling their resources to multinational companies and cut down on social expenditure to compete economically (Ruggiero & South, 2013). GDP ‘may also indicate the increase in the purchase of luxury goods and a simultaneous destruction or privatisation of common resources’ (Ruggiero & South, 2013:365).

Ecological Disorganisation Theory

Ecological disorganisation refers to the extraction of natural resources from the ecosystem by humans with the purpose of converting it into manufactured products creating toxic waste (Stretesky, Long & Lynch, 2013). Ecological disorganisation compliments the efforts by early green criminologists of associating political economic principles to environmental crime (Schnaiberg, 1980). This theory assumes that society’s well-being depends on economic growth which is asserted by the state, labour and capital (Stretesky, Long & Lynch, 2013). The natural cycle of the treadmill follows that ‘capital supports increasing production for profit, labour is concerned with increased wages and job growth that accompany increased levels of manufacturing, and the state views economic development as revenue generating’ (Stretesky, Long & Lynch, 2013:234). This relationship creates a collaboration amongst the actors to adopt policies that will benefit economic growth and expand production (Stretesky, Long & Lynch, 2013). This theory analyses the role that toxic chemicals have in accelerating environmental degradation destroying the ecosystem to promote the expansion of capitalism (Stretesky, Long & Lynch, 2013). This ecological disorganisation was intensified after World War II, when chemical technology became available and increased the volume of capital investment improving profit returns. This gave way to an increase in production causing the price of commodities to drop and for commodities and natural resources to increase to satisfy the demand (Stretesky, Long & Lynch, 2013). The result was an increased volume of toxic waste. This theory is premised on the ideology that the political-economic system is based on the expansion of industrial production and economic development that will advance society’s welfare (Stretesky, Long & Lynch, 2013). However, little evidence has been put forward to demonstrate the connection between economic expansion and social welfare. If anything the increase of production supports the opposite (Stretesky, Long & Lynch, 2013).

Radical and Critical victimology

The definition of a victim, a socially constructed concept, is complex and riddled with contrasting scholarly opinions (Fitzgerald, 2010). To complicate matters even more, most literature fails to consider non-human victims. However, within the spectrum of victimology, two perspectives allow for the application of non-human victims to be incorporated: radical and critical victimology.

Radical victimology examines victimisation from a more general perspective rather than only looking at victims from interpersonal violence, proposing that such victimology should include four types of victimisation: ‘victims of one’s self, the social environment, technology, and the natural environment’ (Fitzgerald, 2010:134). Radical victimology expands the definition of victims and offenders by questioning the role of the capitalist state allowing for victims other than just humans to be included, such as animals and the environment (Fitzgerald, 2010). Critical victimology can be seen as complimentary to radical victimology as it aims to critically understand conceptualisations of victims and victimisation (Fitzgerald, 2010). This perspective is premised on understanding the powers that decide who should be a victim and offender and how this decision should be made (Fitzgerald, 2010). And has been used in studies that seek to investigate ‘the role of anthropocentrism (the privileging of humans over other species) in western culture, how it is interconnected with the structures of capitalism and patriarchy... and how it makes animals and the environment particularly vulnerable to harm’ (Fitzgerald, 2010:134). Scholar Nils Christi (1986) identified six attributes that can be considered as fitting to the concept of a culture’s ‘ideal victim’ which are: the victim should be weak; was engaged in a respectable activity when victimised; the victim could not be blamed; the offender was ‘big and bad’; the victim did not know the offender; and the victim is worthy enough to claim the status of victimhood (Fitzgerald, 2010). Although the construction of these attributes present some obvious tension and highlights larger structural issues, non-human entities, such as other species and the eco-system perfectly fit the definition of those most vulnerable.

Additionally, the idea of the ‘big and bad’ offender can be applied to corporations and its’ power dynamic. It is the law that regulates relationships that manage corporations, such as shareholders, directors, creditors and employees, which are all contributors to making a corporation succeed. One of a corporation’s most resilient feature is its’ fictional persona, an artificial legal creation that allows for a corporation to become a separate legal entity from those managing it. Should the corporation fail, although investors will lose their investments

and employees will lose their jobs, it is the corporation alone that will be liable for its' debts owing to the corporation's creditors. A corporation has rights and responsibilities like a human being, they are born (incorporated) and die (insolvency) as natural people do too. However, they are essentially artificial bodies without an ability to think, speak or enter into legal relationship on their own.

7. The case of BP Deepwater Horizon Oil Spill

The explosion of the oil rig Deepwater Horizon on the evening of April 20, 2010 caused an environmental catastrophe that killed 11 workers; injured multiple workers, released over 4.9 million barrels of oil into the Gulf of Mexico and led to a widespread of ecological damage of marine life, sea birds, deterioration of human well-being and economic disaster for many living in the area (Arora & Lodhia, 2017; Ladd, 2012). The history of BP is extensive and to delve into all details is unnecessary and falls outside the purpose of this research paper however, the company's culture and involvement with the U.S state are crucial to understanding the steps that led to this event.

Oil Industry Background

In 1933, after many oil and gas explorations, the coast of Louisiana saw a technological breakthrough when Texas Company first introduced the "submersible" drilling barge, culminating in offshore technology allowing corporations to dig deeper for oil along the Gulf Coast (Gramling & Freudenburg, 2006). The considerable activity of offshore drilling meant that the state would receive an increase in tax revenue, which saw a body of politicians fighting over which state would be the one to benefit from the activities (Gramling & Freudenburg, 2006). In 1953, the Outer Continental Shelf Lands Act (OCSLA) was passed, granting the federal government the rights to undersea lands regulating the oil and gas explorations in the Gulf of Mexico (Gramling & Freudenburg, 2006; Ladd, 2012). This new technology led to a burst in international offshore explorations, with 20 countries producing oil and/or gas offshore (Gramling & Freudenburg, 2006).

BP's Background

Between 1995 and 2007 BP appointed John Browne as the company's chief executive to deter BP from bankruptcy. He managed to turn BP's fate around by venturing into the Gulf of Mexico, which in 2002 yielded a profit of \$15 billion ((Ruggiero & South, 2013; Marques *et*

al, 2011). It was Brown's management principles that successfully brought BP to the forefront of the oil and gas industry. In 2000, BP implemented an aggressive rebranding marketing campaign (called "Beyond Petroleum") to give BP a more environmentally friendly image, to gain the approval of the public (Ruggiero & South, 2013). However, this called for drastic measures to be taken that saw cutting down on company's costs and increasing its' assets; firing safety engineers and adopting high-risk / high-reward energy projects called "elephants" (Ladd, 2012:107).

Regulatory Framework

In conjunction, the regulatory framework helped to increase BP's chances of success. The federal government adopted the National Environmental Policy Act (NEPA), a regulatory framework tasked with monitoring any activities that involve pollution of public lands (Marques *et al*, 2011). In addition the Secretary of Interior, in charge of approving offshore drilling, has a mandate to reduce U.S's dependence on foreign oil (Marques *et al*, 2011). In terms of the regulatory framework the exploration of the Gulf of Mexico was not allowed, however an exception was passed that classified the Gulf of Mexico as mature for oil and gas explorations under the NEPA (Marques *et al*, 2011). Another important agency is the Mineral Management Services (MMS), a chief federal agency that was implemented during the Reagan administration by James Watt (one of America's most antienvironmental political appointees) tasked with overseeing the oil industry, the protection of the environment and also with driving the U.S toward energy independence (Marques *et al*, 2011; Ladd, 2012). The contradictory duties within agency caused a conflict of interest which translated into ineffective environmental oversights (Marques *et al*, 2011; Ladd, 2012).

Corporate and State Interference

BP and other oil companies influenced the MMS agency by demanding that corporations be allowed to do their own evaluation of the marine impact of their operations, despite evidence pointing to a lack of effective technology to mitigate spills (Ladd, 2012). In spite of MMS pushing to implement more stringent regulations, the agency was forced to acknowledge that the industries' safety and maintenance mechanisms were "failsafe" (Ladd, 2012). These allowances were possible through "a pervasive pattern of bribes, payoffs, illegal gifts, lucrative personal contracts, lavish parties, football tickets, hunting trips, expensive meals, and sexual

favours between oil company personnel and MMS officials” (Ladd, 2012:108). BP’s poor record for safety and maintenance plans led to a chain of accidents:

- 2005: an explosion in Texas City killing 15 workers and injuring 180 workers that forced residents to take shelter. The investigation revealed that the explosion was caused due to the deficiency of the company on all levels. A fine of \$50 million was paid for violating the Clean Air Act, however no legal charges were pursued (Ladd, 2012).
- 2006: corroded pipelines in Alaska caused two giant oil leaks to erupt. Despite all the evidence, BP was charged with a misdemeanour charge and a \$20 million fine (Ladd, 2012).
- 2007: investigations revealed BP’s poor safety and maintenance records. The Environmental Protection Agency (EPA) threatened to cut government contracts unless BP took proper and regular audits and maintained better environmental controls over the oil operations. Despite the EPA’s investigation the U.S government ignored recommendations in order to secure BP’s interest, especially as BP was the U.S’s largest oil supplier (Ladd, 2012).
- Between 2007 and 2010 BP violated “nearly one half (862) of all OSHA safety citations handed out to the entire refining industry...[and] received 760 citations...for “egregious wilful” violations of health and safety laws” (Ladd, 2012:109).
- 2010: despite the many concerns of Transocean’s rig workers over the lack of safety controls, Transocean and BP passed federal inspection to drill the Macondo well (Ladd, 2012).

Even in the face of the multiple violations, nothing persuaded the U.S Congress to increase its control over the industry. The benefits that Congress received from BP could be an explanation for Congress’s lack of interest attitude (Ruggiero and South, 2013). Before the April 2010 disaster happened, BP increased the lobbying budget “in Washington to \$15.9 million in 2009 to try to dilute new laws aimed at preventing oil-spill pollution” (Ladd, 2012:109). A high number of Congress’ members in charge of regulating the oil and gas industry held personal investments valued at more than \$9 million in companies they were overseeing, BP being one of them (Ladd, 2012). BP ensured that hefty amounts of more than \$6 million be paid to help several federal candidates’ campaigns, including a \$77,000 pay-out to President Obama (Ladd, 2012). Many government officials were key advisories for BP’s board and judges serving in courts in the Gulf Coast districts “had financial links to oil, gas, and related energy industries, including owning stocks and bonds in BP, Transocean, and Halliburton” (Ladd, 2010:110).

The Spill of BP Deepwater Horizon

The exploration of well Maconodo in the Gulf of Mexico brought BP, Transocean, Halliburton and Schlumberger together for the purpose of offshore oil drilling to extract hydrocarbons trapped under the ocean bed (Marques *et al*, 2011). The reservoirs discovered were 10,668 meters beneath the earth's surface, a well of considerable depth, with unstable drilling foundations due to pockets of methane in the seafloor (Marques *et al*, 2011). Drillers are needed to ensure that, when extraction takes place, the pressure between the hydrocarbon and rockbeds is balanced, to prevent an uncontrolled shoot out to the surface (Marques *et al*, 2011). This balance is achieved by pumping mud into the wellbore and installing blowout preventers to secure the well by squeezing the drill pipe shut and sealing it, an automated system known as "deadman" (Marques *et al*, 2011). Cement operations control the safety of the equipment to prevent pressure from escaping the ocean floor (Marques *et al*, 2011).

On the day of the accident, some tests revealed issues with the pressure in the pipes, with several engineers being unhappy with the results. However, after several tests, one test conducted on a separate pipe, known as the "kill line" achieved the desired pressure that deemed all operations to be safe (Marques *et al*, 2011). Upon this approval, at 9:20 pm workers started pumping (Marques *et al*, 2011). Soon after, a series of vibrations were felt, and mud began to spew on the oil rig causing the first explosion that cut the power (Marques *et al*, 2011). The explosion began the release of oil into the Gulf of Mexico for over 87 days before the wells were able to be sealed (Gibson *et al*, 2017). An insurmountable amount of 4.9 million barrels of oil were released calling for the U.S largest clean-up and recovery operation as a means to mitigate the ecological damage (Gibson *et al*, 2017). The clean-up operation was intense and lasted five years. The full extent of the damage to the environment is still unclear, with scientists hard at work studying the effects on the different species and the eco-system. The exact numbers of deaths of all species will never be known however as a small example of the ecological effects the National Oceanic and Atmospheric Administration in the US provided the following numbers:

- 4,900 to 7,600 large juvenile and adult sea turtles, and between 56,000 to 166,000 small juvenile sea turtles were killed;
- 35,000 hatchlings were lost due to the effects of the oil and the clean-up activities;
- more than 1,400 marine mammals were found sick on the surface;

- all 21 species of cetaceans found in the Gulf were exposed to the oil through subsurface, surface, and air contamination;
- at least 15 species of dolphins and whales were affected by the oil showing signs of injury, such as increased mortality and health defects (NOAA Fisheries, 2021).

8. Discussion and Conclusion

The case of BP provides an accurate representation of the underlying principles of the theoretical framework proposed in this paper, exposing a structure of greed and profit-making at any cost. Starting from an organisational point of view, **organisational theory** underlines the principle of common ground thinking that is formed within a group and an environment that creates common rationality. BP's common ground was the maximising of profits. Mechanisms had to be implemented to achieve this result. BP's business strategy informed an internal organisational culture of cutting corners, taking risks and disregarding safety procedures. This consistently shaped an internal belief and value. Unrealistic practices became routinised into organisational processes risking the safety of all employees and the environment.

In the early stages of the oil industry spillage and leaks of oil products were considered normal practice and a common occurrence, which meant that there was consensual validation from within and from outside the structure (Beamish, 2000). This view changed and such practices were no longer considered acceptable, however workers within the organisations denied and avoided reporting the spills, why? ...'hierarchy, as an organisational structure, relieves individuals from responsibility over making decisions concerning what is right or wrong socially (substantive-rationality in Weberian terms) and promotes, instead, insulation from a sense of moral culpability' (Beamish, 2000:481). 'The hierarchical insulation from responsibility... helped to keep workers who watched diluent spill... from feeling it was their obligation to do something about it. When relieved of making decisions, people tend to cede their personal responsibility to those who are in control' (Beamish, 2000:482). This highlights the presence of an oil work sub-culture which further rationalised and normalised the spills. Industrial sub-cultures can be defined as 'a complex aggregations of norms, job roles, social definitions, explanatory frameworks and moral injunctions, the existence of which are crucial for the maintenance of continuity in human activities within industrial endeavour' (Beamish, 2000:485). Thus, the culture in organisational structures that shapes collective sensemaking plays an important role in normalising deviance.

The above theory leads us into the well-known criminological theory: **rational choice and deterrence**, cost-benefit analysis and a fear of legal sanctions. As per the study conducted by Paternoster and Simpson (1996) BP's management and cultural practice presented an inhibited moral compass and a continuous devious approach towards regulations and compliance. Stretesky (2006) uses a rational choice perspective to understand corporate crime and combines the concept of corporate self-policing, an economic incentive for corporations to report administrative, civil, and criminal violations to the authorities. This has become a popular tool for policymakers, rewarding companies that promote the least expensive and most flexible methods for achieving compliance, however in practice this might lead to furthering corporate crime (Stretesky, 2006). The rational choice theory is clearly visible in BP's approach toward interfering in the regulatory processes. BP demanded that policymakers allow BP to conduct its' own compliance mechanisms, which was possible due to the self-serving interest of those in power. The BP case provides a good example of the relationship between desire-for-control over state officials and the by-passing of sanctions.

A culture of performance that BP implanted across the organisation coupled with bullying and harassment of state officials, falls within the **routine activity theory**. BP was motivated to increase profit, targeting natural resources. The exploration and exploitation of natural resources was possible due to a lack of guardianship by state officials. A very neat explanation has been provided that summarises this theory within the corporate structure: “[c]ertain cultural mandates, political environments, and departmentalization within an organization can engender corporate misconduct by facilitating acts of normalized deviance, concerted ignorance, and/or structural...[f]or instance, knowledge of misconducts can be compartmentalized within a subunit of a complex organization such that detection by another subunit is difficult, as structural secrecy limits information flow. Or, increased risk may be accepted over time in such small increments that the normalization of deviance isn't apparent until extreme events occur...[i]n addition to these challenges for guardianship, employees may engage in non-compliance in response to organizational dynamics. For instance, being ordered to engage in the act by senior personnel consistently increases managers' intentions to engage in corporate crime” (Brisman, Carrabine & South, 2017:324).

Political and economic theoretical perspectives draws attention to the underlying incentives to commit environmental crime. This paper sheds some light on the ‘treadmill of production’ model and its connection to GDP. Metrics of GDP treat natural resources as a

commodity for further production of luxury goods that propels economic growth, instead of valuing the protection of natural resources and sustainability as metrics of GDP (Ruggiero & South, 2013). Government and industries that are reliant on natural resources are not in favour of adjusting GDP to reflect sustainability for it would lead to GDP declining, translating into lower economic power and instituting charges for ecological damage (Ruggiero & South, 2013). Many corporations, in particularly oil companies, have been given incentives, hidden rewards, favourable tax treatments, favourable laws and access to resources at below fair market prices encouraging offshore drilling striving for GDP growth (Stiglitz, 2012). It is this current economic and political climate that casts a shadow on environmental regulation and protection (Ruggiero & South, 2013; Stiglitz, 2012). Consequently, harms are often seen as part of the ‘business as usual’ attitude, instead of being considered a serious crime. BP’s business practices align with this attitude, where oil spills are considered normal occurrences within the oil industry.

The **ecological disorganisation theory** also adopts economic principles. This theory points to how the role of the state plays a part in advancing the treadmill of production. It places the responsibility on the state to influence the speed in which it wants the treadmill to run. ‘If the treadmill is to be slowed and reversed, the central social agency that will have to bring this about is the state, acting to re-channel production surplus in non-treadmill directions’ (Shnaiberg, 1980:249). The case of BP is a good example of the state’s real intention. The U.S government was well aware of the gains it would receive from allowing BP to conduct its business in the Gulf of Mexico - tax revenue and energy independence. The U.S government also knew the impact that such explorations would have in accelerating environmental degradation. However the drive towards capitalistic power meant that capitalistic interest weighed heavier on the scale than protecting the environment. Oil spills are merely a by-product of this balancing act that justifies environmental degradation. Maybe ecological crimes are a small price to pay to achieve economic and political power. The rationale of the relationship between the state and BP is fitting within this theoretical perspective.

A crucial part of this research paper is acknowledging the victims of environmental crime. **Radical and critical victimology** aims at expanding the definition of the social construct of a victim, suggesting that there is a need to include non-human victims. This victimology perspective supports the underlying theoretical framework of this research: the structures of

capitalism and the role of our hierarchical society, placing humans above natural resources; a system that favours societal economic wealth over environmental health.

To recognise that humans are part of nature acknowledges that humans also require nature for their own needs. The interaction of humankind as part of nature is reflective in how we interact with nature and use it. As stated by the Ecuadorian Constitution ‘nature is entitled to the respect from humankind’ and ‘humankind is under an obligation to respect nature and at the same time is entitled to benefit from nature’ (White, 2018:348). To allow for a more inclusive definition, regulations would necessitate a more ecocentric approach where human behaviour is regulated in such a way that reflects ecologically sustainable development, focusing on ecological integrity (White, 2018). The lifeless characteristic of corporations, like BP, creates an ‘uncaring legal person, unable to experience emotions associated with guilt, remorse and compassion: corporeal capacities that corporations do not possess” (Spencer *et al*, 2013:216). I propose that in the same way that legislation acknowledges corporations’ own legal personality, so should these legislations acknowledge nature as having its own legal persona worthy of protection. Victims of corporate harm, particularly in nations that openly allow for such harms to take place, are in dire need of protection from the ‘big and bad’ offender (Spencer *et al*, 2013).

The degradation of the environment is no longer a distant concept spoken only amongst scientists and academics, instead it has now become a popular selling point for politicians and corporations to achieve their goals. The real issue however, is not as popular: the underlying drive by powerful actors in pursuit of profit and economic growth that ultimately leads to environmental and ecological crime. This drive could be one of the many reasons why certain states and powerful actors are not as invested in establishing legal milestones that will see environmental harms transcend from merely violations to being considered serious crimes threatening our very existence. The possibility of having a political and economic climate be responsive to environmental and ecological crime leaves open the idea of how to hold accountable corporate entities and state agents favouring a culture of consumption. A culture favoured for many years at the expense and degradation of the ecosystem, and ultimately only harming our own existence. International institutions are required to implement legal frameworks that will bring about potent international responses, for a crime that transgresses boundaries. A suggestion would be to advocate for a more stringent application of the law that will incorporate ecological crime as a crime against humanity making corporates and states pay

not only in monetary fines but also making those actors personally liable for breaching the right to life.

This paper posed the research questions: *How can criminological theories help explain environmental and ecological crimes?* It concludes, essentially: that crimes against the environment causing ecological disorganisation is an interdisciplinary subject that requires a multi-faceted theoretical framework. Although green criminology stems from critical criminology, traditional criminology is insufficient to explain a multidisciplinary body of work that embraces a network of principles. This body of work spans from a micro to a macro approach, from individual-level environmental crimes all the way to corporate/state environmental harms. This research paper explored the links to other disciplines and demonstrated its implicit relationship that criminologists might find interesting and fruitful.

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