A CRITIQUE OF PLASTIC AND ITS IMAGERY: REFLECTIONS ON WASTE AND RESPONSIBILITY

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Abstract

Lorsqu'il a été introduit pour la première fois sur le marché mondial au milieu du vingtième siècle, le plastique était considéré comme un matériel utopique, prometteur d'un avenir meilleur. Des décennies plus tard, la vérité concernant les programmes de recyclage, la menace « invisible » des microplastiques présents dans les aliments que nous consommons et les images de plages couvertes de déchets de plastique font de plus en plus partie de notre discussion collective du matériel. Ce projet pose la question suivante : Comment, le cas échéant, les représentations visuelles des déchets de plastiques contribuent-elles à façonner le sujet environnemental?

When first introduced on the global market at the mid twentieth century, plastic was understood as a utopian material, promising better futures. Decades later, the truth about failed recycled programs, the threats of microplastics found in the food that we consume, and images of previously pristine beaches covered in plastic waste are increasingly part of our collective discussion about plastics. This project fundamentally asks: How, if at all, do visual representations of plastic waste contribute to shaping the environmental subject? It takes as an object of study an iconic series of photographs (*Midway: Message from the Gyre*) and film (*Albatross)* by American artist and environmental activist Chris Jordan. Drawing on Michel Foucault's theory of governmentality, a qualitative content analysis of online commentary of the imagery is conducted. The framing of imagery and the messages conveyed by the artist run the risk of "greening" action. Broader systemic critique that addresses the plastic crisis as one rooted in production is necessary to break from a suggested pattern of response of blame, preaching and despair.

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In June 2019, the Prime Minister of Canada announced that he intended to ban harmful single-use plastics, work with provinces and territories to generate standards that would hold companies responsible for disposing of their plastic waste and move towards a circular economy of plastic with the aim of prolonging the life cycle of plastics through a more thorough recycling infrastructure. During the announcement, the Minister of Environment and Climate Change at the time, Catherine McKenna, explained, "We've all seen the disturbing images of fish, sea turtles, whales, and other wildlife being injured or dying because of plastic garbage in our oceans. Canadians expect us to act." (Prime Minister of Canada, 2019). Additionally, she claimed that the steps taken by government would "(…) help create tens of thousands of middle-class jobs and make our economy even stronger—while protecting fish, whales, and other wildlife, and preserving the places we love." (Prime Minister of Canada, 2019). The Zero Plastic Waste initiative was officially unveiled in 2020. While applauded by some scientists and environmentalists, others, like Greenpeace Canada, criticized the plan for its lack of rigidity and for its failure to address the true source of the "plastic crisis"[1]: the production of plastics (King, 2020). The initiative would prevent only a low percentage of total plastic production, and subsidies to oil and gas companies would remain untouched.

I became very interested in reactions to this initiative in the early stages of the pandemic lockdown in the autumn of 2020, specifically when encountering disposable masks and plastic gloves (amongst other usual plastic waste: wrappers, lids, bottle caps, lighters) on sidewalks during daily walks. I started to question my relation to plastic, curious to understand the *buzz* around this material and the urgency to mitigate its effects. Plastics are derivative of oil, a substance that has, amongst other fossil fuels, contributed to the greatest era of economic, social, technological growth

[1] For a definition of this term, see p. 3.

(Petrocultures Research Group [PRG], 2016). Oil is also at the heart of many geopolitical disputes and its environmental impacts, extraction and spilling incidents are well recorded. As explained by the PRG (2016): "Fossil fuels are now thoroughly politicized. Industry and progressives, privileged consumers and the disfranchised, battle it out in the streets and in the media with radically unequal resources." (p. 14). The way in which we use and consume plastic is also revealing of our deep entanglement with petrochemicals, yet this relationship is "intimate", unlike the one that we entertain with other oil products like gasoline or electricity (Davis, 2015, p. 349). Plastic infiltrates almost every aspect of our daily activities and rituals. It is present in our clothes, it wraps our food, it is used in medical devices, it makes up our cellphones, computers, it prevents our buildings from collapsing.

In addition to being everywhere, plastics are cheap to produce. They enabled a new era of mass consumption, making packaging plastic's largest worldwide market (Geyer et al. 2017). Plastics play an active role in sustaining the infrastructure of advanced capitalism and fantasies of endless market growth that are facilitated by mass consumption and the extractive industry (Davis, 2015). Imagining a world without plastics is difficult today, although the mass production of synthetic organic polymers only dates to the early 1950s (Geyer, Jambeck & Law, 2017). In short: we are obsessed and dependent on plastic.

Concurrently, in 2019, *Environment and Climate Change Canada* issued a report which estimates that 4,667 kilotonnes of plastic products is introduced on the domestic market each year, with approximately "nine percent of waste recycled, four percent incinerated with energy recovery, 86 percent landfilled, and one percent leaked into the environment in 2016" (p.ii). As exemplified in my example of plastic objects that I encounter on daily walks, once leaked, plastics accumulate. The writer and researcher Heather Davis (2015) draws a portrait of this phenomenon:

> "[Plastics] gather in the environment in the forms of blighted landscapes, bags fluttering in the wind, or lighters and wrappers found in ditches, masses of untold plastic items piled in garbage dumps, and in the gyres of the ocean, where they swirl and are eaten by many forms of marine life, from bacteria to birds, tortoises to whales" (p. 351).

While most plastics that are found in the environment are intended as single-use items, these plastics do not decompose easily: instead, they break up into smaller pieces called "microplastics" that permeate our waterways, land, food. Furthermore, oil-based plastics absorb organic pollutants that have similar chemical structure, which intensifies their toxicity and inevitably permeates organisms that mistake them as food (Davis, 2015). The amount of plastic waste in the environment is expected to double by 2050 with current estimates of plastic production and deficiencies of effective disposal strategies (Geyer et al., 2017; Hohn et al., 2020). Given the intensity of plastic's production, consumption and disposal, media sources and academics often speak of a "plastic crisis", yet this term is not often clearly defined. For this project, I follow Chertkovskaya et al.'s (2020), conceptualization of the plastic crisis as a phenomenon constituted by five problematics: "fossil fuel dependency, toxicity, disposability, pollution and permanence" (p. 2). These elements are mutually constitutive of this global phenomenon, but pollution and disposability receive more attention in public discourse (Chertkovskaya et al., 2020).

As is highlighted in Catherine McKenna's declaration concerning part of the context in which governmental plastic initiatives are launched, the public is becoming increasingly aware of the effects of plastic through the proliferation of videos, images, antipollution campaigns and art. Enough so, in a Canadian context, to influence political decisions. A simple google image search of "plastic" yields much circulated images of piles of plastic bottles, bags, straws, and cutlery washed up a beach, stacked in giant cubes waiting to be recycled. Some images feature people

sorting through a pile of plastics four, five or six times their size, or lying down, resting in a mountain of waste. A child, barely clothed, walking barefoot on an urban beach, making their way through a swamp of plastic objects. A graphic image of an octopus limb wrapped around a plastic bottle. Fish, swimming amongst toothbrushes. A close-up of a turtle's mouth about to gobble a red plastic cup, the ones that are used at university dorm parties. Skies, beaches, water, humans, animals: plastics. The objects are shiny, sometimes transparent, colourful, of various shapes and sizes, some intact, others in debris, pieces, barely visible pellets.

Looking through these images of plastic, I noticed that they all focus on waste, the end-of-life of plastics. In this regard, social scientists and environmentalists have made the argument that focusing too much on the end-of-life of products, through waste management solutions like recycling, tends to depoliticize and deflect from the effects of the *production* of plastics along the supply chain and within the life cycle of the plastic commodity (Calisto Friant, Vermeulen & Salomone, 2020; Humes, 2019; Valenzuela & Böhm, 2017). Liboiron (2018) explains that focusing on the end-of-life of products looks "at the wrong end of the pipeline", that is: after the production of disposable plastics. Dauvergne (2018) also notes that a hyper-focus on the outcomes of consumption and market solutions can have the effect of individualizing responsibility, which allows a powerful plastics industry to avoid accountability or oversight. Reflecting on these images with this critique in mind, I contend that we must pay close attention to imagery and the way that the plastic crisis is visually represented and thematized. I argue that focusing primarily on the end product through imagery has the undesirable effect of obscuring the role of corporate power in the genesis of this crisis.

The literature that directly addresses the effects of plastic imagery is sparse. However, there are a few exceptions, notably Chertkovskaya et al.'s (2020) study of the plastic crisis through

contemporary artistic visual representations, Amanda Boetzkes (2019) argues that waste art is not just representational or illustrative, it is also integral to an ecological consciousness, and Liboiron's (2009, 2012, 2016) repeated concerns with the visual representation of plastic and scientific data on its effects. In addition to these works, there are pertinent studies that focus on the visual culture of climate change and its effects, as seen in Smith (1999), Rogers (2007), Dunaway (2015), Soneryd & Uggla (2015). I therefore draw from these important sources with the objective of contributing to scholarly analysis that problematizes the visual landscape of plastic imagery, particularly as it obscures the source of this problem: processes of plastic production.

Research Question

It is my contention that images of plastic must be studied by focusing on power and the potential that images possess in altering human relations to plastics. I suggest that approaching this topic through Michel Foucault's theory of governmentality, which refers to "techniques, rationalities, and methods used in directing the ways subjects perceive and act on themselves and others around them" (Väliaho, 2014, p. 15), provides insights into the way in which images can shape our way of thinking and acting towards a phenomenon like the plastic crisis. Furthermore, I propose that paying close attention to individual responsibility in this context provides insights into relations of power that permeate human interactions with plastics.

In light of my research topic and identified problematic, my project fundamentally asks the following question: *how, if at all, do visual representations of plastic waste contribute to governing environmental action and to shaping the responsible subject?* As explained by Murphy (2018), questions that begin by "how" enable us to further investigate ways of thinking and behaving in our everyday lives that are often taken for granted, assumed to be correct, and rarely critically examined (p. 19).

Research Aim and Contributions

To further investigate the proposed research question, this project takes the form of a theoretical and empirical critical examination of the potential of images to act as technologies that operationalize the rationalities of governmentality in the context of the plastic crisis. While there is a vast body of research that grapples with power and imagery, images are rarely discussed in relation to the Foucauldian notion of governmentality. Following Spurlock (2012), I consider images as important resources that have the potential of "reproducing ideology, communicating social knowledge, shaping collective memory, modeling citizenship, and (…) action" (p. 258). I further contend that paying close attention to the way in which people make sense of their role and responsibility when viewing images can offer insights into power relations that direct actions and attempts to mitigate the plastic crisis.

My research therefore consists in a single case analysis of photographer Chris Jordan's photographs from the *Midway: Message from the Gyre* series (referenced as the *"Midway"* series throughout the project) and the film *Albatross*. To facilitate the reading of this thesis, I use the term "images" to refer to both the content of the photographic series and of the film. The images focus on albatross—dead and alive—that inhabit Midway Atoll, or the Midway Islands, located in the North Pacific Ocean. More specifically, Jordan's work focuses on the birds' ingestion of plastic. Plastic objects and debris are understood as originating from the Great Pacific Garbage Patch, a garbage patch of marine debris approximately the size of Texas. I chose to focus on these images given their documented and experienced tendency to generate emotional reaction, their subject matter which is consistent with popular framings of the plastic crisis, and the questions that I came to ask myself as I contemplated these images: *what is rendered visible and what is concealed in these images? To which effects?; What do we learn by viewing these images? How*

is this knowledge accepted and contested by viewers?; How is responsibility conceived through these images? Through which practices and actions is individual responsibility accepted and resisted amongst viewers?

To answer my research question and these sub-questions, I offer an analysis of the reception of Chris Jordan's work by online commenters who react to social media posts and articles on the series and film. I support my analysis with a review of the academic literature that addresses the imagery in question. The research operates within a governmentality framework to elucidate the ways in which commenters make sense of the concept of responsibility and action towards the environment. An important task in sociological research is to challenge structures of power in society by questioning what is often assumed yet unexamined. As such, the intention for this research is to contribute to the body of literature that problematizes imagery in the context of the plastic crisis and of environmental problems more generally.

Project Outline

The project is divided in six sections. Following this introduction, the second section consists in a review of literature in three areas that constitute my research topic: 1) imagery and power, 2) waste, wasting and disposability, and 3) plastic and imagery. The third section addresses my theoretical and conceptual framework, by offering an overview of my understanding of governmentality according to Michel Foucault. I highlight what I understand as the main characteristics of power as well as the meaning of subjectivity in a Foucauldian sense. I finish this section with an exploration of the concept of responsibility, which I describe in the context of the environment.

The fourth section consists of a presentation of Chris Jordan's *Midway* series and film *Albatross*, and pertinent scholarly literature that addresses these images. In the fifth section, I

discuss my methodological choices, which consists in a qualitative content analysis of online commentary from a popular *The Guardian* article on Jordan's work, Reddit posts that address images from the *Midway* series, an Instagram post and academic literature that grapples with Jordan's work. Both the images and the comments constitute my main object of analysis. The sixth section details my analysis of comments understood within the context of my theoretical framework. I discuss scholars and commenters' various positions on the framing and the content of the images. This discussion is presented through an analysis of visibility, knowledge, and responsibility. I finish the project with concluding remarks on the analysis, limitations, and possibilities of future research. I demonstrate that imagery should in fact be understood as a technology of governance, highlighting the restrictive, but also productive qualities of this mechanism in the context of the plastic crisis.

Literature Review

On Images and Power

In his book *Biopolitical Screens: Image Power, and the Neoliberal Brain*, Pasi Väliaho (2014) opens his first chapter with a simple, yet powerful quote by German art historian Hans Belting: "What cultures do with pictures and how they capture the world in them leads straight to the centre of their way of thinking." (p. 1). If we follow a Foucauldian rationality, we can understand images as acquiring certain significance and having effects according to a historical moment. Images become a mediator between discourses, institutions, laws, moral dispositions and bodies, minds. In a similar vein, Burri (2012) claims that images in the twenty-first century must be understood as crucial forms of "the social", which "represent social realities and, at the same time, shape the ways people think and interact" (p. 46). She claims that images are neglected in sociology, as they are mostly used as research tools instead of being directly integrated in social

reasoning. A visual sociology, in her view, must ask how the social world is constructed through images while also paying close attention to the ways in which these images are produced, circulated, interpreted, reproduced (Burri, 2012).

Images require human bodies and minds to take on meaning, to be perceived, remembered, interpreted, and transformed (Väliaho, 2014). Our bodies and minds act as a medium or a "material host" for images to circulate. Technological platforms also facilitate the circulation and meaning making of images (Väliaho, 2014). In his article on the limits of what images show of the Anthropocene, Irmgard Emmelheinz (2014) explains that it is through being seen that images acquire value and/or power. In the technological reality of the twentieth-first century, this value and/or power is mostly acquired "through dissemination structures such as "likes", "shares", and "retweets"" (Emmelheinz, 2014, p. 131).

Importantly, images act as a boundary between what is visible or what we see, and what is invisible, obscure, unseen. In this regard, images operate through networks of power (Väliaho, 2014) and "can become instruments of domination" (Traue et al., 2019, p. 330). In their study of visuality, Traue et al. (2019) note that for Foucault, "everything that is said is dependent on what is sayable, and that the social processes in which the sayable shifts intersect with shifts in power relations" (p. 330). They claim that this idea of *sayability*, or what is sayable, can be transferred to the visual realm, which points to *visibility*. Visibility therefore encompasses the act of showing and the effect of this action. It also means that the relation between what is visible and what is invisible operates through power and governance (Traue et al., 2019). Furthermore, what is made visible and rendered invisible by images creates shared ways of making sense, of feeling, "they weave the common fabric sensibility that defines the social body" (Väliaho, 2014, p. 11).

In this sense, images can generate new ways of thinking and feeling. Emmelheinz (2014) explains that "Images circulating in the infosphere are also charged with affect, exposing the viewer to sensations that go beyond everyday perception." (p. 137). Additionally, when we think of the ways in which images circulate, we must not only think of how they are reproduced in the technological sphere (through social media, other online platforms). Väliaho (2014) claims that they are also circulated through humans: through how images make us feel, make us act, think, see the world and ourselves. In turn, they can play an active part in shaping how we engage or approach various phenomena. We can therefore understand how images are manipulated to generate specific responses from the public. Writing on the history of "green" imagery in America, Dunaway (2015) offers examples that can speak to the affective quality of images and the way in which they are framed to generate emotional responses. Comparing two important types of environmental images of the end of the 1960s – aerial images of the Moon from the Apollo 8 mission, and images of the Santa Barbara oil spill which remains to this day one of the most important oil spills in the US – Dunaway (2015) claims:

> While the aerial views revealed the slick's enormous reach, the pictures of oil-drenched animals called for a more emotional response and urged audiences to feel sadness and sympathy toward the death of helpless creatures. Almost all of the images that used this representational strategy focused on individual animals. Detached from other wildlife, many of these creatures appeared completely immobilized by oil. If a bird in flight offered a quintessential glimpse of wild nature, then birds coated in oil, rendered motionless by the imprisoning viscosity, represented a cruel perversion of the natural order. (p. 40)

This example of individual animals drenched in oil, unable to move, and the emotional responses that are generated by the sight of these images point to the power of the images themselves, but

also to the power of the maker of the images. By deciding on the content of an image and the framing of this image – whether it is media images, artistic photographs, film, etc. -, the person who creates the image affects the way in which this image will be received.

In this regard, Chertkovskaya et al. (2020) claim that art is inherently political even if an artist as an individual might try to reject this claim. If we understand that art reflects the ideological realm of a society at a given historical moment, an artist can never really operate outside of this realm and thus, the art becomes reflective of a particular political discourse. Focusing on plastic imagery, Chertkovskaya et al. (2020) explain that artists, just like the public, remain "inside" the issue, and therefore "reproduce the way the public discussion on plastics is framed, focusing on some of the root causes or consequences of the plastic crisis while ignoring others" (p. 3). It is, however, important not to restrict our focus to the content of the image, how it is presented and received. Väliaho (2014) reminds us that the power of images is also importantly reproduced in the actions, passions, movements that are prompted by them. He explains:

> As such, images are endowed with an "intense capacity of propagation." The various kinds of groupings they can consolidate form the germ of our adaptation to the prevailing social reality and the object world. They are the force that binds individual bodies and persons with reality and collective ways of doing, making sense, and feeling. (Väliaho, 2014, p. 4)

Similarly, Soneryd & Uggla (2015) comment on the role of news media and popular culture in distributing normative messages, using examples like the film *An Inconvenient Truth* and children's books. They claim that important pieces of popular culture visualize climate change in particular ways and "compile and present selected forms of knowledge that presuppose certain identities and responsibilities of targeted groups" (p. 918) In this sense, we can understand that images play an important role in shaping the way in which we understand the world and

subsequently come to identify and relate to others, humans and/or objects. Before taking a closer look at the literature that addresses imagery in relation to plastics, it is important to clarify the signification of key concepts that are central to human relations to plastics. Although the meaning of waste, wasting and disposability might appear obvious at first glance, these concepts are shaped by practices, values, and norms that further complexify their meaning.

On Waste, Wasting and Disposability

The term waste, as an adjective, is generally understood in the sense of the following definition: "(of a material, substance, or by-product) eliminated or discarded as no longer useful or required after the completion of a process" (Encyclopedia, 2018). It is often conceptualized as surplus, or an excess to the social processes of production and consumption. Yet, while this might appear commonsensical, there is more to waste than a "depletion, dissipation or loss of value—generally as a by-product of greed, inefficiency or distorted economic relations" (O'Brien, 1999, p. 269).

When considering literature from various fields of social sciences – sociology, anthropology, geography, political science, management – that grapple with understanding human and systemic relations to waste, waste is frequently conceived of in relation to the phrase "matter out of place"--a reference to Mary Douglas' book *Purity and Danger* (1966). Mary Douglas' book offers an important theoretical lens through which we can understand systems of ordering and cultural practices that separate 'dirt' from 'non-dirt' (Bailey, 2020). In her book, Douglas defines 'dirt' as any "matter out of place", that is as a separate cultural category that defies order. It would make sense to consider also waste as 'dirt', as it is generally conceived as *out of place*[2], something that is no longer of use and must be discarded. Yet, as explained by O'Brien (1999) waste is not

[2] I have chosen to italicize *out of place* and *in place* throughout the thesis to signal that I am referencing Mary Douglas' expression of "matter out of place".

out of place as it is part of a system of waste management that is ordered and profits from products being qualified as waste. In this sense, waste is not *out of place*, but rather organized and a clear process of value conversion. It is another raw material that "can be turned into cash" (O'Brien, 1999, p. 281), making it an integral part of a capitalist economy. It is first managed by bureaucratic institutions – government, town planners, environmental health department, not by scientists and technicians (O'Brien, 1999). While we speak of waste as the end product of consumption, "waste never loses its consumption value, for the value of waste underpins major economic sectors, providing incomes for multinational conglomerates, local authorities and individual refuse operatives alike." (O'Brien, 1999, p. 282). Waste therefore enables an economic system to exist, which relies on the definition of waste to remain ambiguous.

Similarly, in an oft-cited blogpost *Waste is not "matter out of place"* (2019) on www.discardstudies.com, a popular online hub for academics, students, and activists who grapple with the subject of waste, Liboiron (2019) explains the confusion surrounding Douglas' concept of 'dirt' through litter. Litter is defined as "Odds and ends, fragments and leavings lying about, rubbish…" (OED, 2021), or, something that is spatially displaced. Litter can be found on a country road, a beach, in the middle of the street when it should be in a garbage can, recycling bin or a landfill (Liboiron, 2019). Yet, while at first glance it appears that litter defies order, is *out of place*, it produces questions about "where to put disposables, where disposables are and are not allowed, and how to keep flows moving through space in the "right" direction (…) and also creates organizations of space through infrastructure such as bins, landfills, and sanitation trucks." (Liboiron, 2019). In this sense, litter allows for a certain order, a hierarchy of power to be maintained which relies on the distinction of 'dirt' from 'non-dirt'.

The distinction of waste or litter as matter *in place* instead of matter *out of place* is important to this research as I question whether the way in which waste is visually represented directs or misdirects action. Understanding social relations to waste and practices of wasting is therefore crucial. O'Brien (1999) explains that wasting, or the act of disposing, should be understood as a "comparable dynamic of social change, the elements of which drive technological innovation, instil and challenge social rights, roles and rules of access, encode cultural representations, and organize political hierarchies and regulatory frameworks" (p. 270). In other words, wasting refers to practices on the individual and institutional levels that determine what happens to different wastes, i.e., objects considered waste and enables a process of value conversion. When waste enters a system of waste management, the goal is "not to reduce waste arisings at all but to organize their profitability in a rubbish political economy" (O'Brien, 1999, p. 391).

How can we make sense of this understanding of waste in the context of the plastic crisis? Pathak (2020) explains that plastic pollution, which is one of the central problematics of the plastic crisis as defined previously, connects to plastic litter, as it is generally understood as "post-consumer waste found in the environment" (p. 5). Thinking of these "leaks" of disposables found in the environment - often understood as plastic pollution – as *out of place*, spatially displaced, can serve to maintain power (Pathak, 2020). Plastic litter, or plastic pollution, is understood as spatially displaced because it is no longer in the dedicated spaces of where it belongs – the trash cans, landfills, recycling centres. By focusing on this form of litter as *out of place*, the problem of plastics is recast as one of litter instead of the production of disposables. In this regard, Pathak (2020) notes that campaigns to restore the order and purity promoted by the plastic sector are driven by economic incentive. For example, Rogers (2007) points to the group *Keep America Beautiful* as

one of the roots of corporate greenwashing in the United States. The packaging industry formed the group in the 1950s (but rose in prominence in the 1970s) to "pre-empt legal restrictions on disposable goods, namely packaging" (Rogers, 2007, p. 232). The group advocated against littering, actively promoted recycling activities, which allowed the production of disposable plastic to keep flowing. The following section will discuss the group at greater length; yet it is important to note that campaigns such as the ones from *Keep America Beautiful* contribute to maintaining plastic litter *in place*, as it maintains the social order. With plastic waste being out of sight, it is out of mind.

On Embracing Disposable Plastics

Vincent (2013) claims that for plastic to gain its status in society, the twentieth century "had to develop a sort of blindness about the impacts of material consumption on the environment and on the future" (p. 27). In fact, there is a consensus amongst scholars who study the social and cultural concept of waste that in North America the act of disposing of goods had to be taught to citizens as this was not commonly understood as a desirable practice before the twentieth century. Prior to the twentieth century, the amount of waste generated was mostly manageable, taking the form of organic materials, or disposable within a more localized economy. Generating too much waste was regarded as "inefficient" and "arising through improper management" (Lucas, 2002, p. 12). Generally, there was less consumption and disposed items were easier to decompose. Local economies allowed for the reuse of packaging items like glass milk bottles: they were kept intact, cleaned, and refilled as part of a retrieval system (Lucas, 2002). Norms of reuse were well engrained and celebrated prior to the twentieth century.

Lucas (2002) notes that as of the late nineteenth century, more goods started to be sold for disposal, but the beginnings were slow. Initially, paper and cardboard were the main materials of

disposable goods before the arrival of plastics and synthetics in the early to mid-twentieth century. If we consider the rise of disposability of objects other than packaging, the Gillette shaving razor, which appeared in 1906, became "the standard bearer of mass-market capitalism and the progenitor of the notion of disposability" (Hawkins, 2019). On an even bigger scale, plastic packaging enabled an exponential growth in production and consumption in the post-World War II era. This period is commonly understood as a time of rapid social change characterized by economic growth, low oil prices, the rise of the suburb in North America, supermarkets, to name only a few societal changes. By the end of the 1950s, sanitary landfills disposed of waste, reducing its environmental impacts. (Colten, 2010). Daily wastes were brought to landfills and covered, which discouraged scavengers from reusing disposed objects. A clear shift from reuse to throwaway transpires at this time, as the use of disposable materials proliferates (Colten, 2010). But why did we embrace disposable plastics?

Introduced widely on the market after World War II, plastic's promise of a better future retained a utopian quality (Hawkins, 2018). The public celebrated its durability, malleability, its universal availability. The French philosopher and literary figure Roland Barthes dedicated a short two-page essay entitled *Le plastique* in his famous book *Mythologies* (1957). In the essay, he grapples with the mythology of this substance, or what he claims to be "plus qu'une substance" as it is "l'idée même de sa transformation infinie" (p. 171). In this sense, plastic is nothing without context. When contextualized, it possesses unceasing possibility, it is "une matière miraculeuse: le miracle est toujours une conversion brusque de la nature" (Barthes, 1957, p. 171). However, Barthes envisions plastic's predicament by suggesting that its freedom to imitate or become anything will eventually abolish the hierarchy of substances. Everything becomes plasticized:

> Le plastique est tout entier englouti dans son usage : à la limite, on inventera des objets pour le plaisir d'en user. La hiérarchie des substances est abolie, une seule les remplace toutes : le monde entier peut être plastifié, et la vie elle-même, puisque, paraît-il, on commence à fabriquer des aortes en plastique. (Barthes, 1957, p. 172)

Vincent (2013) notes that while Barthes only experienced the beginning of an era of mass-produced cheap, fashionable, disposable plastic products, he "saw the coming of a new relation of our culture to time", that is "ephemeral", "ever changing" in comparison to the permanency of other important materials like gold and diamonds (p. 23).

Moreover, in his historical and technical study of plastics in American culture, Jeffrey Meikle (1995) demonstrates how plastic came to be seen as a utopian material that conjured a dream world. He traces the transformations of the material, from Bakelite in the 1920s to post-war thermoplastics like polyethylene and polystyrene and demonstrates how they gradually infiltrated every aspect of everyday life, replacing other materials, and generating new needs (for example, we can think of disposable cups, telephones, credit cards). Plastic was initially praised for "offering evidence of an ability to improve upon nature, even to transcend it" (Meikle, 1995, p. 2). Meikle (1995) continues: "The artificiality of materials and the proliferation of things have changed our perception of reality by making it seem more malleable, less permanent, even ephemeral. (…) Easier to shape and color, plastic has given everyday life a sense of greater possibility or plasticity." (p. 2).

In this regard, advertisement and imagery played an important role in shifting the values of the American public towards embracing plastics and most decisively, disposability. The literature often cites an article published in Life Magazine in 1955 entitled *Throwaway Living: Disposable items cut down household chores*. It was published in a post-war period widely

characterized by economic growth, low oil prices, high productivity aided by newly automated systems, the rise of suburbs in America. The term “throw-away society”, which indicates a switch in values towards a culture of mass consumption and of disposability, originates from this article (McCool, 2020). The article leads with an image of a nuclear white family happily throwing disposable objects in the air (see figure 1). Their open arms suggest that they welcome a new dawn, one of plastic cutlery, plastic bags, straws, paper plates and frozen food containers (McCool, 2020).

Figure 1: Photograph from *Life Magazine*, 1955

Although norms of disposability were quickly embraced, their effects became most visible through a rapid growth of litter. Jaeger (2018) notes that by the beginning of the 1970s, a concern for litter “was joined by a concern that we were producing too much waste, visible or not” (p. 397). In the United States, on the first Earth Day, April 22, 1970, environmentalists blamed the beverage and packaging industry for polluting the environment (Jaeger, 2018; Rogers, 2007). By that moment, the packaging industry had already funded *Keep America Beautiful*. Rogers (2007) claims that this move was “the first of many greenwashing corporate fronts to come”, its goal consisting in

distracting people "from questioning the viability of an increasingly trash-reliant marketplace" (p. 233). In response to the accusations made against the industry on Earth Day, *Keep America Beautiful* replied with an advertisement seen as an "exemplar of propaganda" (Jaeger, 2018, p. 406) and now known for its ability to stir-up the "guilty consciences of Americans young and old" (Rogers, 2007, p. 234). Jaeger (2018) describes it as follows:

> In the spot, the actor Iron Eyes Cody plays a Native American paddling down a river, visibly upset by the litter polluting it. After he reaches the litter-strewn shore, a car speeds by: its passenger tosses a bag of trash out of the window that lands on the protagonist's foot. Iron Eyes Cody sheds a single tear. A simple message closes the ad: "People start pollution. People can stop it." This is KAB's best-known legacy, and it surely constitutes its most purely "ideological" strategy. (p. 406)

Recycling soon became accepted as the main solution for tackling issues of waste and littering. Social science scholars often critique this "solution" for its individualization of environmental issues (Jaeger, 2018; Rogers, 2007; Liboiron, 2009). A key argument that critiques recycling is that focusing on waste management as the solution tends to depoliticize and deflect from exposing the effects of the production of plastics along the supply chain and within the life cycle of the plastic commodity (Calisto Friant, Vermeulen & Salomone, 2020; Humes, 2019; Valenzuela & Böhm, 2017), or as Liboiron (2018) says, it is "looking at the wrong end of the pipeline", that is, after the production of disposable plastics.

The recycling symbol, composed of three chasing arrows suggesting a closed loop of production and recycling, is ubiquitous for its power of "advertising more enlightened, eco-friendly ways" (Rogers, 2007, p. 235). Liboiron and Rogers both claim that the plastic industry co-opted the recycling symbol. In 1988, the *Society of Plastics Industries* adopted the symbol

which had previously been of the public domain, adding numbers in its centre, soon being imprinted on all bottles, boxes, packaging (Rogers, 2007, p. 236). The arrows came to symbolize an action that is good for the environment. In this regard, Liboiron (2009) explains: "All parts of this narrative rely on the abstraction, mystification, and misplaced equivalence of the recycling process so that the practice of recycling can come to mean the same thing as the recycling symbol" (p. 6).

On Imagery and the Plastic Crisis

If plastic was already abundant by the end of the 1960s, it is today omnipresent (Chertkovskaya et al., 2020). It is present in countless everyday items, such as clothing, packaging, cars, cell phones, while also fulfilling specialized medical functions and acting as an important material in buildings and infrastructure. This said, it is now an "anthropocenic marker" because of its close relationship to the growth of carbon economies and its damaging impact on the environment, humans, and animals (Hawkins, 2017, p. 15).

How does one communicate the extent of the plastic crisis to the public? Art is increasingly becoming an important vehicle to draw attention and concern for the problems associated with plastic (Chertkovskaya et al., 2020). In her book *Plastic Capitalism: Contemporary art and the Drive to Waste* (2019), Amanda Boetzkes argues that waste art is not just representational or illustrative, it is also integral to an ecological consciousness. It plays an active role in developing the way we understand and interact with waste in its non-biodegradable forms, like plastic. This can be through representation, critique and the visual narration of alternate possibilities and futures.

In this regard, Chertkovskaya's et al. (2020) research concerns themes addressed in art that contend with the global plastic system, questioning whether some framings are more common than

others. Based on scholarly literature on plastics, they suggest five interconnected problematics that conceptualize the phenomenon of the plastic crisis, which I have embraced for this project. These five themes are fossil dependency, toxicity, disposability, pollution, and permanence. Through an analysis of thirty-five artworks - qualified as "objects or creations resulting from artistic practices" from both professional and amateur artists, scientists, and activists – they claim that marine plastic pollution and disposability are the most common themes addressed. Plastic's dependency on fossil fuels and toxicity is less commonly represented or critiqued in art. It is here suggested that focusing too much attention on themes of pollution and disposability could have the negative effect of masking the systemic nature of the plastic crisis. They further conclude:

> The emphasis on the responsibility of the end user of disposable items – the consumer – complements this. It individualizes large-scale social problems and obscures the responsibility of industry and governments in overproduction, planned obsolescence and inadequate disposal of plastics. In fact, the plastic crisis we are living through arises out of the very structure of the economic system, with its orientation towards infinite growth and profit. This is what needs to be realized for the plastic crisis to be addressed at a scale that matches the problem itself. (Chertkovskaya et al., 2020, p. 10)

In this regard, artwork that they find most communicative of political messages tend to be the ones that grapple with multiple themes at once and that stimulate strong emotions from the viewer. They suggest that what artists decide to present in their work is inherently political as they are "entangled in political discourse" (p. 3).

While other literature that addresses the plastic crisis does not explicitly discuss the artists' political involvement, interdisciplinary approaches to the plastic crisis are common, especially collaborations between scientists and artists. The *Synthetic Collective*, a group of artists, scientists,

humanities scholars take an interdisciplinary approach integrating various disciplines to research on plastic pollution (Belontz et al., 2019). Members of the group "work together to sample, map, understand, and visualize the complexities of plastics and micro-plastics pollution in the Great Lakes Region" (Synthetic Collective, n.d.). An important part of their mandate consists in enriching artistic production with science. When discussing the use of art or images more generally to draw attention to issues of plastic pollution, they express criticism towards relying on emblematic animals, citing issues with drawing attention away from the dimensions of the plastic crisis that are harder to visualize (e.g., toxicity, microplastics) (Belontz et al., 2019). Problems encountered with these choices in visuals are the narrow scope of what is presented, and that the information communicated does not lead to "changes in plastics management" (Belontz et al., 2019, p. 859). They claim that merging arts and sciences can generate more effective results.

In a similar vein, Métis scientist and artist Max Liboiron[3] (2016) engages directly with issues of artistic representations of marine plastic pollution data and activism. In their work, they observe that scientists face the complicated challenge of representing marine plastics to be sure that "their materiality, scale, agency, and loci for effective action are as clear as possible" (Liboiron, 2016, p. 16). To launch action, Liboiron highlights the importance of building a body of work that represents different aspects of the problem, through "charismatic data" that resonates with cultural values and morals of the intended public. Interestingly, they problematize the use of "theaters of proof", a concept introduced by Bruno Latour, that seeks to dramatize scientific data to engage the public, rending a phenomenon quickly visible. Liboiron (2012) has critiqued the use of theaters of proof in environmental awareness campaigns for their risks of misdirecting action,

[3] Liboiron has collaborated with the *Synthetic Collective*, but they mostly publish with the *Civic Laboratory for Environmental Action Research* (CLEAR), a feminist, anti-colonial, marine science laboratory that they founded at Memorial University in Newfoundland.

like instigating beach clean-ups and green consumerism. In their work, they advocate for activism that is grounded in materiality and specificity, claiming that such an approach is more ethical and has the potential of leading to more effective action (Liboiron, 2012).

In all, in this section, I offered an overview of the connections between power and images, defined waste as a concept that is dependent on the distinction between order and disorder, or what is deemed *in place* and *out of place*, discussed how society came to embrace disposable plastics and presented the ideas of key scholars that shape my understanding of images of plastics throughout this project.

Theoretical and Conceptual Framework: From Governmentality to Responsibilization

To further explore the role played by images in shaping human responses to the plastic crisis, I suggest that Michel Foucault's conceptualization of governmentality and by extension subjectivity can offer some insights on the relations that I want to observe. In the following section, I begin by offering an overview of governmentality. This leads to a more in-depth exploration of power for Foucault and his conception of the subject. I discuss subjectivity in contrast to other models of the subject. Subsequently, I discuss the process of responsibilization in relation to governmentality. This section ends with a discussion of responsibility and the environment.

Governmentality

In 1978, during a lecture series at the Collège de France titled *Sécurité, territoire et population*, Michel Foucault introduced the concept of governmentality as part of his exploration of power's productive rationalities by introducing his famous triangle of "sovereignty—discipline—governmentality". He continued his analysis of governmentality in a lecture series titled *Naissance de la biopolitique* in the following year, introducing neoliberalism and biopolitics into his analysis of the art of government. This concept arose in a methodological period of

Foucault's work that is often called the "genealogical period", following his early archaeological concerns while preceding a period focused on ethics (Darier, 1999). Governmentality nevertheless transgresses the borders of these periods, as Foucault offers a detailed historical account of the conditions through which "government" emerged as a "modern form of power", while integrating an archaeological understanding of power/knowledge and subsequently raising ethical queries through the "problematization of subjectivities" (Darier, 1999, p. 9). Importantly, "government" becomes Foucault's preferred term for power more generally. Concurrently, governmentality functions as the main tool to instill power, draw various techniques and procedures in the modern world (Gutting & Oksala, 2021). The use of the term "government" should therefore not be confused with the institution itself or the state, although both are included by Foucault in his analysis of government, i.e., power.

In his earliest discussion of governmentality, Foucault (1991) demonstrates how the *problematic* of government arose through a historical account of treaties and literature on government from the Middle Ages onward. In the middle of the sixteenth century, he identifies an evolution from treaties presented as "advice to the prince" to an "art of government" concerned with the managing of the state, of the conduct of oneself, of others, of goods and wealth. In early literature on the art of government, government is described as "the right disposition of things, arranged so as to lead to a convenient end" (here referring to a remark made by Guillaume de La Perrière in his *Miroir Politique*, published in 1555). For Foucault, this marks an evolution from traditional sovereignty, which is a form of power imposed on a territory that relies on a subject's obedience and submission to law, to government. In governmentality, tactics are deployed on more than territory and subjects to achieve an end goal through different means (Erlenbusch, 2013). In

this new form of power, the state is no longer concerned firstly with territoriality, but now with the managing of its population.

In *Sécurité, territoire et population*, Foucault (1991) demonstrates how, over an extended period in the West, sovereign and disciplinary forms of power have become overtaken by governmental power. He insists that governmentality does not *replace* sovereignty and discipline: the latter two forms of power are working through government. Governmentality is therefore an extension of discipline and sovereignty forms of power (Oksala, 2013). For example, when analyzing disciplinary power, Foucault starts with an analysis of repressive institutions to move on to productive practices. He takes a similar approach to governmentality, beginning with an analysis of the state as a repressive institution to better comprehend governmental practices (Oksala, 2013). This new form of society can be defined as an: "(e)nsemble formed by institutions, procedures, analyses and reflections, calculation and tactics that allow exercise of specific form of power, which has: as target the population, as principal form of knowledge political economy and as essential technical means apparatuses of security" (Foucault, 1991, p. 102).

Within this early exploration of governmentality, Foucault also explores the evolution of a liberal model of government to a neoliberal model. This distinction is important to our understanding of governmentality as it offers an idea of how power circulates in relation to the state, the market, individuals. He differentiates liberalism, in its classical sense, and neoliberalism through (1) their relationship involving the state and the economy and (2) "from the basis of government" (Lemke, 2001, p. 200; Foucault, 2008). On the first point, whereas the liberal model of government relies on the powerful state as its basis and dictates the market, in a neoliberal model, the state is reliant and controlled by the market as the latter regulates and organizes society. Neoliberalism is therefore preoccupied with establishing the ruling principles of the market

economy as the guiding forces of political power (Foucault, 2008; Hellberg, 2018). On the second point, whereas in the liberal model the rationality of government relies on principles of human nature and freedom of the individual to mark the limits of governmental action, the neoliberal model relies on an artificially generated sense of freedom that can be manipulated by the tools of governmentality to serve the market (Foucault, 2008; Lemke, 2001). This said, while the market dictates the state, the state still maintains its original functions with added tasks. With multiple state apparatuses now acting as authoritative figures, "neo-liberal forms of government (…) also characteristically develop indirect techniques for leading and controlling individuals without at the same time being responsible for them" (Lemke, 2001, p. 201). Through various techniques of government, individuals engage in acts of self-disciplining and self-monitoring. Without requiring direct state or non-state intervention, individuals come to control their own conduct and, by extent, the conduct of others. I further discuss the "conduct of conduct" in the upcoming sections on power and on responsibility.

Gutting & Oksala (2021) observe two major features of governmental rationalities for Foucault. The first one consists in a centralized form of political power which is characteristic of the modern state. This can be seen through highly organized bureaucracy and administration (Gutting & Oksala, 2021) which finds as a target the population, or the conduct, regulation of the population. The second feature highlights the individualizing power of the state. Government "does not aim at directly shaping the actions of individual or collective actors, but rather at an indirect and reflexive determination of possible options of action." (Lemke, 2016, p. 18). This way of governing at a distance by shaping and/or limiting the scope of one's possibilities for action leads me to interrogate the role and function of power within Foucault's work, especially as he conceives of it in his later work.

Power

In an interview in 1984 published under the title *The Ethics of the Concern of The Self as a Practice of Freedom*, Foucault claims that contrary to popular belief he scarcely uses the word power throughout his work and that if he does, it is "simply as shorthand for the expression… relations of power" (Foucault, 1997, p. 291). This section consists in an attempt to define what relations of power are and are not, by highlighting some of their key features in Foucault's work. For this project, I explore four main characteristics concerning *relations* of power as manifest in social dynamics: 1) their relation to coercive force, 2) their role in shaping possibilities of individual and/or group action, 3) their relation to freedom, and 4) games of truth.

Firstly, Foucault explains that there is an important distinction to be made between models of power that come to mind as the coercive exercise of power over another (ex: a political structure, master / slave dynamic, a dominant social class) and relations of power. He insists that the latter model is mostly what he analyzes in his work. This could appear to be counter-intuitive considering that some of his most popular work analyzes relations of domination (ex: *Discipline and Punish* focuses on institutional power in Western penal systems and is structured around an analysis of torture, punishment, discipline, the prison), yet power is most often not a direct means to an end. If we think of power as relations, we see that power permeates all aspects of social relationships, whether verbal, economic, loving, or institutional relationships (Foucault, 1997). Within these relationships, there is always a person who attempts to control the conduct of the other. In this regard, Foucault (2003) explains:

> Power is exercised through networks, and individuals do not simply circulate in those networks; they are in a position to both submit to and exercise this power. They are never

> the inert or consenting targets of power; they are always its relays. In other words, power passes through individuals. It is not applied to them. (p. 29-30)

This said, the power that circulates through a person or a group does not necessarily consist in directly forcing another person or a group to do or not do something (Lemke, 2016). It is neither about the capabilities of an individual to act or not. It is rather about the complexities of the social relationship that shapes the *fields of possibility* of human action (Foucault, 1997; Lemke, 2016). In this sense, we are not only talking about the ways in which the actions of an individual or a group are limited, it is rather about how the possibilities of their actions are affected. This means that when a group or individual *modifies* the possibilities for action of another group or individual, the former has exerted power over the latter (Lemke, 2016, p. 23).

A return to my earlier discussion on the "conduct of conduct" as a unique feature of governmentality can exemplify the specificity of power relations and the shaping of possibilities for individual or group action. Without requiring direct state or non-state intervention, *individuals control their own conduct and, by extent, the conduct of others*. To conduct oneself in a particular way or to lead others means that there is, on some levels, mechanisms of coercion by which one obliges. These mechanisms shape what is possible and what is not, and we contribute to the proliferation of these "models" of possibilities. In this sense, by shaping the possibilities for action, power is present when actions are both "extremely limited and restricted, but also (…) invented or created" (Lemke, 2016, p. 23).

Before continuing, it is important to highlight the regulated, rationalized side of power, understood through governmentality. As observed by Gutting and Oksala (2021), Foucault consistently insists that to understand power as a set of relations, we must recognize how these relations are rationalized. Relations of power and the ways in which they shape possibility must

therefore be understood within a particular system of practices to which there is a certain rationality. Practices are enabled, regulated, and justified within a system, at a particular historical moment. They are not random.

As previously stated, power is manifested when actions are restricted, but also when they are created. We can therefore understand government, i.e., power, as being compatible with "states of domination" and/or "strategic games between liberties", which means that power refers to much more than domination (Simons, 2013, p. 311). If power is also a possible generator of liberties, we can see how for Foucault, power is not only repressive, but also productive. It allows for the transmission of knowledge, discourse and shapes our understanding of ourselves. Concurrently, understanding power as being ever-present in social relations does not mean that it is negative or coercive. Foucault believes that while power shapes our range of possibilities for action, there is the possibility of resistance and, necessarily, freedom. He explains: "in power relations there is necessarily the possibility of resistance because if there were no possibility of resistance… there would be no power relations at all. (…) [I]f there are relations of power in every social field, this is because there is freedom everywhere." (Foucault, 1997, p. 291-292).

What does Foucault mean by freedom? While Foucault believes in the possibility of resistance and freedom, they are not realized in a social field outside of relations of power. He explains that if relations of power are understood as means through which individuals attempt to direct, conduct, determine the behaviours or others, a society without power relations is not possible (Oksala, 2005). In this regard, Oksala (2005) states the following:

> While it is impossible to step out of the social field structured by power relations, it is possible to effect changes in it: for example to free subjects from states of domination—situations in which the subject is unable to overturn or reverse the power relation—to a

> situation in which power relations are interchangeable, variable and allow for strategies for altering them. (p. 177)

In this sense, while there is no ultimate liberation from power, it is possible to modify the relations of power and to find emancipation from different systems of domination. Oksala (2005) explains that this aspect of Foucault's thought generates clear objection from critics. For now, delving into the critiques are beyond the scope of this project.

In his work, Foucault often uses the word "game" when speaking of power. Games of power, games of truth. He writes: "relations of power, they are played; it is these games of power (jeux de pouvoir) that one must study in terms of tactics and strategy" (Foucault, in *Dits et Écrits*, as quoted by Oksala, 2005, p. 105). By "game" Foucault (1997) speaks of a certain set of rules through which truth is produced. "It is a game in the sense of an amusement; it is a set of procedures that lead to a certain result, which, on the basis of its principles and rules of procedure, may be considered valid or invalid, winning or losing" (Foucault, 1997, p. 297). Who speaks the truth? An individual or a group who establish a consensus, within the scope of "practices of power and constraining institutions" (Foucault, 1997, p. 297). Yet, games contain meanings that cannot be reduced to direct intentions of an individual "player" (Oksala, 2005, p. 105). It is through these games of truth and games of power that forms of subjectivity and particular types of knowledges come into being within distinct historical and social contexts (Oksala, 2005).

Subjectivity

What does subjectivity mean and how is it related to governmental power? Where does the subject, the "I", come from? How is it (or how am "I") conditioned by external forces such as the media consumed, images and messages circulated by one's community, society and politics that shape their day-to-day life? The "I" lies at the intersection between abstract concepts, emotions,

and reactions (Mansfield, 2000). Although the subject is hard to define (and should remain speculative and incomplete according to some theorists), it is important to mark a distinction between the words "self", "subject" and "subjectivity" for the sake of clarity. The word "self" and "subject" are often used interchangeably yet using the word "subject" implies a link to outside forces, such as ideas, values, principles, general truths that a society or culture holds of other subjects (Mansfield, 2000). A person is therefore "always subject to or of something" (Mansfield, 2000, p. 3) or, as defined by the Oxford English Dictionary (2021) is "… under the control of or owes obedience to an abstract principle of power". The word "self' does not capture the entanglement of the 'I' with social and cultural factors to the same level. Subjectivity is more abstract and encourages us to question and attempt to understand how our interior lives are connected to other subjects and principles (Mansfield, 2000).

A brief overview of differing perspectives on the subject or on subjectivity will help to situate a Foucauldian understanding of the subject. Amongst literature in social sciences that grapple with questions of the subject, three dominant perspectives are frequently discussed. The model inherited from the Enlightenment through Descartes that views the subject as free, autonomous, and unique to everyone is often used in contrast to psychoanalytic and Foucauldian models that understand the subject as a construct. Descartes understood subjectivity as a real, independent entity, meaning that one's consciousness is 'whole' and does not require 'the reality of the *objects* of our thought and experiences' (Schwyzer, H., 1997, p. 342). The self is of divine nature (Burkitt, 2008) and is the starting point of all experiences and knowledge. Considering the latter affirmation, we can better grasp the degree to which Descartes' work has and continues to influence Western thinking (Mansfield, 2000). In contrast to this viewpoint, theorists that understand the subject as a construct understand 'I' as 'made within the world, not born into it

already formed' (Mansfield, 2000, p. 11). The subject is therefore still 'real' (not fake, or false), but doesn't have a divine origin: we have created the subject by thinking, speaking, writing of it in a specific way, collectively. Our self is acquired from our social environment, hence the relevance in seeking to make sense of it through culture and politics.

This modern conception of the subject is reflected in the approach taken by psychoanalysts and Foucauldian thinkers. Psychoanalysts tend to understand subjectivity as a 'thing', that is, something that is quantifiable, knowable, predictable and that follows a structure (Mansfield, 2000). The psychoanalytic approach generally explains the truth of the subject by understanding the structure of its interior life, both individual and public traits (Mansfield, 2020). Individual traits are understood as habits or tastes, while public traits would account for the politics of gender, for example. Jacques Lacan's psychoanalytic conception of the subject points to language as the key 'place' through which we make sense of our identity, meaning, truth. One must therefore see the self as 'a by-product of the language it thinks it uses for its own ends.' (Mansfield, 2000, p. 49). This is of relevance for this project given my concern with images and their role in subject making. For Lacan—like semioticians such as Roland Barthes—a social process is a symbolic process, meaning that 'your relationship with yourself involves the dramatization of images and identities projected into your interior life by the great field of otherness that is co-extensive with language.' (Mansfield, 2000, p. 49). The self is therefore a sort-of by-product.

Language also plays a decisive role in subject making for Foucault, but as it pertains to knowledge and power. While linguistic rules have a distinct effect on the subject, it is the power relations at play that form the subject (Rae, 2020). Foucault's conception of the subject shares some fundamental similarities with a psychoanalytic perspective, yet as explained by Rose (2016), he is critical of the lack of attention devoted by psychoanalysts to social processes through which

various subjectivities come into being. He uses the term subject to depict modern individuals (Burkitt, 2008). Subjectivity is a product of dominant systems of social organization that serve the purpose of organizing, controlling, managing the population (Mansfield, 2000). Yet, while a person is subject to another person through control, the subject is also part of our identity through self-knowledge (Burkitt, 2008).

Furthermore, in his 1982 essay *The Subject and Power*, Foucault posits the subject as the general theme of his work, not power. Through his work, Foucault attempts to show how the subject constituted itself, which he explores through three distinct modes of objectification that transform human beings into subjects (Allen, 2013). The first mode is the process of 'objectivizing' the subject through discourses of linguistics, economics, and biology (Allen, 2013). In this sense, by studying different types of subjects—the speaking subject, the labouring subject, etc.—the subject takes form. The second mode of subjection consists in the administrative and institutional mechanisms that aim to divide the population to better govern. It is done through the individualizing and categorizing of the population (Burkitt, 2008). The population is divided and contrasted amongst the normal and the abnormal, the criminal and the responsible subject, the sick and the healthy. Burkitt (2008) highlights that for Foucault, it is through discourse that order within the population is observed. He defines discourse as 'the rules that govern the language and conceptual vocabulary which (…) order the world and the relation between the things in it' (p. 93). Discursive practices define what we understand as 'normal' and orients the way in which we think and speak of our world.

In this regard, the earlier discussion of waste and its relation to order and disorder is connected to this second mode of objectification. As previously explained, sorting, ordering and valuing waste are processes that are organized by government, town planners, industry, which

extract value and profit from classifying objects as waste (O'Brien, 1999). Understanding waste as excess, surplus, or *out of place* helps maintain institutionalized and political regulatory frameworks by reinforcing rules, regulations, and norms that dictate what belongs where. A highly regulated waste management system further relies on individual practices of sorting and valuing waste for profit to be accumulated from products that are considered to be 'waste'. Waste is integral to our economic system, which relies on individual practices of waste sorting, norms of hygiene and a culture of disposability to maintain its flow.

This reliance on human subjects and actions relates to the third mode of subjection which departs from human beings themselves, meaning that they turn themselves into subjects (Allen, 2013; Burkitt. 2008). Foucault refers to the latter project as 'Techniques of the self' that is, the various procedures through which one comes to 'know oneself' and 'govern oneself' (Foucault, 1997, p. 87). Allen (2013) notes that these different ways of thinking through the subject correspond to three interrelated periods of Foucault's work. She further explains that the guiding thread between these three modes of subjection is power, the ways in which it divides individuals into distinct subjects: the normal, responsible from the abnormal, the criminal. Contemporary power relations are distinct given their relations to the subject:

> this form of power that applies itself to immediate everyday life categorizes the individual, marks him by his own individuality, attaches him to his own identity, imposes a law of truth on him that he must recognize and others have to recognize in him. It is a form of power that makes individuals subjects" (Foucault, 2000, 331, cited in Allen, 2013, p. 338)

This said, the subject is not, "a passive recipient of discursive structures or power relations" (Rae, 2020, p. 108). The subject plays a role whether actively or passively in structuring those relations. Rae (2020) further explains: "There is, in other words, a feedback loop, so that changes to

discourse/power relations do not lead to the termination of the subject, but to new configurations and new subjectivities that subsequently influence the dispersion of power relations." (p. 108).

Thinking of individuals as the "thing" that institutions, state, other actors, want us to be appears constraining. However, in his chapter on subjectivity for Foucault, Mansfield (2020) reminds us that while power and knowledge work at the level of the subject—that is, circulates through subjects—it is also at the level of the subject that it can be resisted. In this sense, since there is no natural or authentic self to uncover, subjects should seek different ways of being and question "models" of the self that are presented to us. By becoming aware of the selfhoods that are constructed for us through a form of self-awareness, we can therefore construct other forms of selfhoods outside of modern conventions (Mansfield, 2020). Mansfield (2020) explains: "This ethical preoccupation with the responsible management of the self touches on politics on the one hand (with its attempt to frustrate power/knowledge), and aesthetics on the other, with its willingness to embrace the fictional and fantastic." (p. 64)

Now that I have established the meaning of governmentality and subsequently power and subjectivity for Foucault, in the following section, I explore the process of responsibilization and in relation to governmentality. This section ends with a discussion of responsibility and the environment.

Responsibilization

Governmentality and Responsibility

The social study of responsibility has gained in popularity in recent years, as it becomes one of the main priorities of public and political institutions. Trnka and Trundle (2017) argue that the "increasing pervasiveness" and "the lack of reflexivity" about responsibility's inherent social worth "are precisely what necessitates a closer examination of this concept" (p. 1). In this sense,

paying closer attention to claims or calls for increased responsibility is indicative of the social relations that connect individuals, groups, institutions. The concept of responsibilization is tied to governmentality, as it can be understood in terms of the "increase divestiture of obligations" by the state or institutions onto individuals, who are encouraged to become self-reliant citizens, self-empowered subjects (Trnka & Trundle, p. 2, 2017). As previously stated, responsibility is a central concept or mechanism of neoliberalism. Neoliberal rationality seeks to emphasize personal responsibility for social conditions (e.g., poverty, environmental destruction) that were once understood as governmental responsibilities. According to this rationality, individuals should be moral actors and rational consumers.

Lemke (2001; 2002) explains that although there is an emphasis on individuality, neoliberal techniques of power also extends to institutions and corporations to be responsible, flexible, autonomous. Techniques of government are no longer *only* utilized by the state: non-state actors, such as professionals, social movements, academics also take part in the "governmentalization of life by entering into complex (…) relations with state agencies, other institutions and political forces" (Rutherford, 1999, p. 60). Responsibility is no longer only inculcated by authorities *from above*, as it used to be observed in western educational institutions. Rose and Lentzos (2017) remind us that "schools utilized both classroom and playground for the observation of character and for moral training, and inculcated habits of thoughtfulness, order, cleanliness, diligence. This was achieved by rewarding good conduct on the one hand, and by classifying and sanctioning misdemeanors on the other" (p. 30). While these disciplinary teachings of responsibility still prevail, the ethic of responsibility is also circulated through strategies *from below*.

By creating techniques of self-responsibilization on the micro and macro level, individuals are no longer only acting under the domination of the state (or non-state actors), but also through

"processes by which the individual acts upon himself" (Foucault, 1993, p. 204; Lemke, 2001, p. 204). In this act of self-disciplining or self-monitoring, techniques of governing at a distance are at play. Without requiring direct state or non-state intervention, *individuals control their own conduct and, by extent, the conduct of others*. This "conduct of conduct" can be understood as a way "to 'lead' [*conduire*] others (according to mechanisms of coercion that are to varying degrees strict) and a way of behaving [*se conduire*] within a more or less open field of possibilities" (Foucault, 2000, p. 341 as translated by Lemke, 2016, p. 18). By this, Lemke (2016) explains that Foucault "stresses that power is first and foremost about guidance and 'Führung', i.e., structuring and shaping the field of possible action of subjects" (p. 17).

Yet, although individuals consistently engage in processes of self-responsibilization and of promoting self-responsibility in their social networks, the ideal self-actualized and self-managing individual that lies at the heart of neoliberalism is not "watertight" (Trnka & Trundle, p. 10, 2017). Trnka & Trundle (2017) explain that self-reliant individuals operate in networks and are deeply intertwined with responsibilities, dependencies, obligations to communities, schools, workplaces. Although individuals might actively engage in neoliberal acts of self-responsibility and care of the self, other forms of interpersonal responsibility and obligation can exist at the same time (Trnka & Trundle, 2017). In the context of my project, I understand this line of critique of the neoliberal rhetoric to mean that in certain areas of their lives, individuals might internalize responsibility to solve big societal issues, while in others, they might reject calls for self-responsibilization and participate in new notions of community and collective organizing. The next subsection consists in an exploration of the concept of responsibility and of care for the environment for a more concrete application of the nuances of responsibility within a neoliberal rhetoric.

Responsibility and the Environment

When it comes to environmental issues, the literature that grapples with the concept of responsibility emphasizes the popular process of diversion of corporate and state responsibility onto individuals. In fact, there is a paradigm called eco-governmentality or environmentality that draws from Foucault's work on governmentality to study the ways in which state and non-state actors "enable and constrain practices, relations, and beliefs" of citizens towards the environment (Spurlock, 2012, p. 249). Processes of responsibilization of citizens and moralism are of crucial importance in discourses of sustainability, resource management and general care for nature. Rutherford (2018) argues that by creating subjects who care and are environmentally conscious, governmental agencies and non-state actors can govern at a distance, directly or indirectly encouraging these individuals to donate to environmental causes and consume new ecological products for the goodness of the earth. In addition to this, green subjects who care about the environment also act as moral agents, inviting others to follow similar practices, or shaming those who act otherwise (Luke, 1995). This "conduct of conduct" allows for environmental solutions to remain focused on individual actions and behaviour changes, as opposed to systemic solutions.

Main techniques of self-responsibilization discussed in the literature are through green consumption and market-friendly solutions. Soneryd & Uggla (2015) note that individuals are consistently incentivized to make small changes in their lives that will benefit the environment. They further explain: "'simple solutions', such as changing light bulbs, having meat-free days, and choosing public transport, are being highlighted at a time when the global, transboundary, and complex character of environmental problems is being acknowledged." (Soneryd & Uggla, 2015, p. 913) In this sense, individuals are increasingly seen as actors that are in control of their decisions and live their lives in terms of choice (Soneryd & Uggla, 2015; Rose, 1999). Soneryd & Uggla

(2015) claim that addressing individuals in this way implies individualizing of responsibility. If the focus of solutions for environmental issues is framed in terms of consumption, it deflects the responsibility from the producer turning it back onto the consumer and so too individualizing and "outsourcing", as it were, responsibility (Smith, 1998). If individual consumption is at the root of the environmental issue, then individuals are the solution (Smith, 1998; Akenji, 2014). Soneryd & Uggla (2015) warn that individualized responsibility runs the risk of resulting in depoliticizing major environmental issues, "implying that we can attempt to consume our way out of environmental problems rather than gathering as citizens and finding political solutions to institutional problems" (p. 926).

Yet, as previously mentioned, "being addressed in a particular way does not mean that one automatically accepts the proffered role and identity of a green, responsible consumer" (Soneryd & Uggla, 2015, p. 925). Individuals also engage in various acts of resistance to individual responsibility as they reject "an unjustified shift of responsibility from the state to citizens" (Soneryd & Uggla, 2015, p. 924). In this sense, the boundaries of the responsible consumer are negotiated and redefined by individuals who actively engage in acts of resistance towards individualized responsibility as well as compliance. This is seen in examples of anti-consumerism, hedonism, political consumption and organizing. Soneryd & Uggla (2015) note:

> (…) when people try to make sense of their own actions and responsibilities, even when they reject certain dimensions of the imperative to be responsible consumers, they are actively participating in the practices that underpin such forms of governance and give form and effect to presupposed subject positions. Some struggle with feelings of guilt, and try to adjust by negotiating their own identity in relation to others, which implies that consumer

> responsibility entails the subjectivation of the individual, not only as responsible for remedying environmental problems but also as a "polluter". (p. 926)

This understanding of the ways in which people question their role and responsibility towards different environmental problems and subsequently participate in shaping subject positions is in line with my previous discussion of the productive dimensions of power. According to Foucault the subject is not "a passive recipient of discursive structures or power relations" (Rae, 2020, p. 108), but rather plays an active role in shaping new configurations of the subject or new subjectivities altogether. It is therefore understandable that individuals challenge "bottom-up" governance as they become aware of the limited effects of market solutions and individualized responsibility.

In this regard, Dauvergne (2018) discusses the limits of individualized responsibility and market in relation to the plastic crisis. He claims that the reduction of forms of plastic waste such as plastic bags and microbeads in some jurisdictions around the world are important, yet the gains are "not coming close to keeping pace with the rising environmental costs from the globalization of plastic" (Dauvergne, 2018, p. 29). He explains that while attention is focused on these bottom-up market-friendly solutions and consumer responsibility, the plastic industry is actively "fighting any efforts to strengthen or consolidate regulations—a resistance that intensifies as the threat to their profits increases" (Dauvergne, 2018, p. 29). It is therefore in the interest of the plastic industry to focus on market-friendly solutions and overestimating the value of individual, consumer, and corporate responsibility. He calls for stricter regulations on industry, an international plastics treaty operating with strict timelines and sanctions.

Considering the literature that addresses responsibility in the context of environmental issues, I am interested in how responsibility is framed through plastic imagery, and how

individuals make sense of this responsibility—blame and/or accountability—when viewing these framings of plastic waste. I suggest that paying close attention to responsibility in this context can provide insights into the relations of power that structure human interactions with plastics. This is further explored in the next section, which presents the case study of this project.

Case Study

Figure 2: Photograph from the *Midway: Message from the Gyre series* (2009-present) by Chris Jordan

These photographs of albatross chicks were made on Midway Atoll, a tiny stretch of sand and coral near the middle of the north Pacific. The nesting babies are fed bellies-full of plastic by their parents, who soar out over the vast polluted ocean and collect what looks to them like food to bring back to their young. On this diet of human trash, every year tens of thousands of albatross chicks die on Midway from starvation, toxicity, and choking.

To document this phenomenon as faithfully as possible, none of the plastic in any of these photographs was moved, placed, manipulated, arranged, or altered in any way. These images depict the untouched stomach contents of baby birds in one of the world's most remote marine sanctuaries, more than two thousand miles from the nearest continent. – Chris Jordan, 2010

This project statement introduces a series of images titled *Midway: Message from the Gyre* by photographer Chris Jordan. The statement was published by the photographer in the magazine *Ecotone*, a publication from the University of North Carolina Wilmington that explores the transition spaces between "landscapes, literary genres, scientific and artistic disciplines, modes of thought", as part of their Spring 2010 volume (Ecotone Magazine, n.d.). The article presented the first photographs of the series. More images and a film - or what Jordan calls a "visual journey" - titled *Albatross* was released. As of January 2022, the collection is listed as "2009-current" on the photographer's website (chrisjordan.com), suggesting that more work could be added to the series.

My research consists in a single case analysis of Chris Jordan's work with the *Midway* series and the film *Albatross*. To answer my research question, I offer an analysis of the reception of his work by online commenters, and I support this analysis with scholarly literature that addresses the series and/or film. In this section, I offer an overview of the photographer's work and the chosen imagery for the project. I also present some of the dominant academic perspectives on the series.

The Photographer

A brief look at Chris Jordan's work is pertinent to contextualize the series of images that will be analyzed. Jordan is an American photographer, based in Seattle, Washington. A significant amount of his work explores garbage and mass consumption through photographic and conceptual images (Chris Jordan, 2011). He focuses on the "small stuff", like individual purchases and acts of consumption, which he attempts to translate on a global scale (Artworks for Change, n.d.). His concern with magnitude is reflected in adjacent work, such as his digital print series *Running the Numbers* (2006-present). Each image is made up of a multitude of photographs that represent a specific quantity of something: objects, animals. For example, in *Plastic Bottles* (2007), what appears to be a landscape of blues, yellows, and greens are in fact, upon a closer look, plastic

bottles. More precisely, the image is composed of two million plastic bottles, which Jordan claims is the number of plastic bottles used in the United States every fifteen minutes (Boetzkes, 2019). It is a graphic assemblage of smaller photographs of plastic bottles. The distinct colours that are noticed come from the labels on the bottles: the red from Coca-Cola, yellows from Nestle, blues from Dasani, orange from Fanta, and the list goes on. He attempts to apply an abstract number to objects to make it more concrete. In this regard, Jordan explicitly states his purpose:

> My hope is that images representing these quantities might have a different effect than the raw numbers alone (…) I hope to raise some questions about the roles and responsibilities we each play as individuals in a collective that is increasingly enormous, incomprehensible, and overwhelming. (Chris Jordan, 2011)

The photographer's concern with consumer responsibility is also reflected in an earlier series *Intolerable Beauty: Portraits of American Mass Consumption* (2003-2005) in which he explores shipping ports and industrial yards of the United States. The images each showcase vast piles of a specific category of objects. For example, an image is composed of a sea of cellphones, another feature crushed cars, cigarette butts, circuit boards. The frame of the image suggests that the multiplicity of these objects continues beyond what is featured, pointing towards eternity. These scenes showcase the detritus of consumption, which can generate fascination from the viewer. While these piles of waste are despicable in some sense, they are also beautiful. The unsustainability of the objects featured in massive quantities is almost comical, as it points to consumption that is repeated on a mass scale. To this effect, Chris Jordan explains his purpose in relation to this series:

> As an American consumer myself, I am in no position to finger wag; but I do know that when we reflect on a difficult question in the absence of an answer, our attention can turn

> inward, and in that space may exist the possibility of some evolution of thought or action. So my hope is that these photographs can serve as portals to a kind of cultural self-inquiry. It may not be the most comfortable terrain, but I have heard it said that in risking self-awareness, at least we know that we are awake. (Chris Jordan, 2011)

Chris Jordan's work fundamentally explores contemporary mass culture by attempting to demonstrate, through various perspectives but often through scale, the urgency of rethinking the ways in which we produce and consume. While the two series that were discussed in this section emphasize numbers like the quantity of disposable objects consumed worldwide at every moment, the series that I focus on draws our attention to whom Jordan suggests are the unintended victims of our habits of consumption.

The Series and the Film

This series of visual materials—photographs, film—takes as its main subject albatross chicks that inhabit Midway Atoll, also known as *Pihemanu Kauihelani* in Hawaiian or commonly called Midway Islands (Midway Atoll, 2021). Midway Atoll consists of three islands: Sand Island, Eastern Island and Spit Island, although "Islands" could be an overstatement given that each of them are small stretches of sand and coral reefs spanning 6.2 km square (Gerhardt, 2018). Midway is considered part of the United States, serving as the home of a Naval Air Facility until 1993. It is located between North America and Asia in the North Pacific Ocean, approximately 3.200km from continental mass. Although no artifacts or structures have been found on the islands, Hawaiian chants and oral histories point to spiritual and cultural connections to remote atolls (Friends of Midway Atoll, n.d.). Midway Atoll is considered a National Monument, a World Heritage Site and a National Wildlife Refuge (Gerhadt, 2018). It houses around 40 temporary staff members. The three small islands are "virtually predator-free" which allows its population of

albatross—the largest in the world—to thrive amongst twenty other bird species of the Hawaiian archipelago, green sea turtles, dolphins, Hawaiian monk seals and plenty of sea creatures who prosper in the coral reefs (U.S. Fish & Wildlife Service, n.d.). The atoll is therefore often thought of as an idyllic location, given its "midway" positioning and its status as a national refuge (Gerhadt, 2018).

Furthermore, the islands are situated in the Great Pacific garbage patch. The Great Pacific garbage patch is a gyre of marine debris with a high concentration of plastics which originate in large part from coastal litter—Asia, the United States—, and fishing activity in the Pacific Ocean. It is in subtropical waters between California and Hawaii (Lebreton et al., 2018). The amount of plastic in this gyre is hard to quantify, yet a recent study estimates that there are at least "79 (45–129) thousand tonnes of ocean plastic (that) are floating inside an area of 1.6 million km2; a figure four to sixteen times higher than previously reported." (Lebreton et al., 2018). The numbers are difficult to comprehend, but we can understand that this gives plenty of plastics for birds to feast on!

With his images, Jordan seeks to show the impact of the global use of plastic on a distinct environment and a species of birds, the Laysan albatross. Each image of the series features the carcass of an albatross with the content of its abdomen exposed, the guts filled with plastic objects and pieces of all shapes, sizes, and colours. The most popular image of the series, visible in figure 2 (see p. 41), features the rotting body of an albatross with an exposed digestive tract revealing large pieces of plastic: bottle caps, a lighter, colourful debris. In other photographs (see figure 3), the carcass of the albatross is almost fully disintegrated: its bones could be confused with wooden pieces, feathers with marine debris. The plastic pieces are, however, quickly noticeable, their bright colours radiating with intensity and non-organic shapes too odd to dismiss. While most birds

are featured alone, the remains of the carcass of the albatross visible in figure 4 blend in with bones and feathers, too many and far apart to belong to the same bird. The colours in this image are particularly distinct: the dark browns, greens and beige of what could be a mix of feathers, dirt, algae (?) are contrasted with the bubble-gum pink of the tampon applicator, baby blues and yellows of plastic pieces. On Chris Jordan's webpage featuring the series of images, the last photograph (figure 5) offers a close-up of an albatross's upper body, its head resting sideways on the ground, eyes closed, dead. There are no signs of plastics in this image, only a dead bird with an intact body, suggesting its recent death.

Figure 3: Photograph from the *Midway: Message from the Gyre* series (2009-present) by Chris Jordan

Figure 4: Photograph from the *Midway: Message from the Gyre* series (2009-present) by Chris Jordan

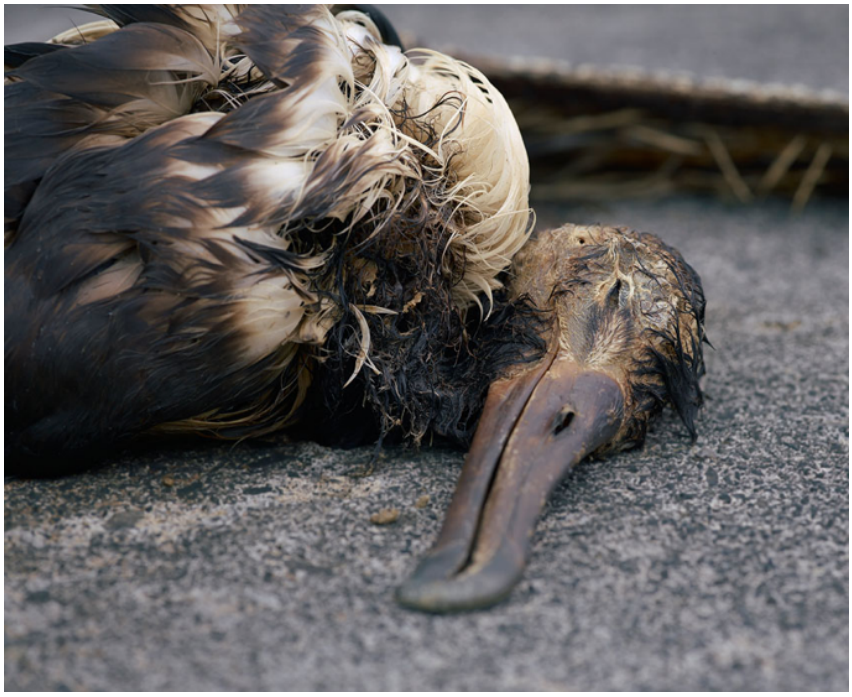

Figure 5: Photograph from the *Midway: Message from the Gyre* series (2009-present) by Chris Jordan

Similarly, Chris Jordan's film *Albatross* (2017), filmed on Midway Atoll, focuses on albatross chicks and their plastic consumption, but shows the cycles of birth, life, and death of the birds. Jordan describes it as a "lyrical journey" that guides the viewer "into the heart of a gut-wrenching environmental tragedy" (Chris Jordan, n.d.). The pace of the film is slow and offers long shots of the nature of Midway: waves crashing against the shore, sunsets, plants and trees. Dilapidated building structures are also shown, reminding the viewer that the Midway Island National Refuge is established on the site of a decommissioned military base[4]. The birds are shown through different life cycles: there are shots of albatross laying eggs—one at a time—, and caring for their chicks through the hatching, nestling and fledgling stages which are relatively long compared to other bird species. Emphasis is placed on their graceful flight, with a wingspan of up to seven feet. Albatrosses are abundant on the island and not fearful of humans given that there are no predators on Midway. There are also many shots of albatross chicks dying and close-ups of their rotting guts. The whining, squeaking, moaning sound of the albatross is mixed with a soft music of predominantly acoustic guitar. "Intimacy" is a word that is often used in the description of this series and film by critics, academics. To this effect, Boeztkes writes: "As the viewer witnesses the albatross's life cycle, rife with the struggle and pain of the plastic agent, the "visual journey" calls the viewer to an experience of intimacy, frustration, and mourning." (p. 234).

When observing the carcasses of albatross, the relatively untouched and unaltered form of these plastic items—known to us as "disposable" objects—in contrast with the almost fully disintegrated body of an animal, highlights the durability of plastics and the unknown trajectory of objects that briefly pass through the hands of a consumer. According to the artist in his

[4] Lead poisoning from direct ingestion of paint chips from the buildings on Midway has been identified as a clear cause of death of albatross chicks (Finkelstein, Gwiazda & Smith, 2003). Measures to reduce the risk of exposure have been taken in recent years, but lead paint chips could still be present (Lavers & Bond, 2016).

statement, these birds are fed "bellies-full of plastics by their parents" which leads them to die of "starvation, toxicity, and choking" (Jordan, 2010). He sees this situation as a "macabre mirror … of our consumerism and runaway industrial growth" and laments our ("first-world humans") lack of ability to distinguish what is toxic to ourselves and our environment (Chris Jordan, 2011). This series of images seeks to critique our culture of mass consumption and its effects on the environment. It highlights the "reality of entanglement" that is the relationship of most living beings with plastics (Boetkes, 2019, p. 237) and requires the viewer to contemplate the magnitude of the problem in a distinct, intimate setting.

Justification

Amongst different forms of representations, imagery of plastic waste entangled with living or dead animal bodies have become important signifiers of the effects that our culture of mass consumption has on our environment. A clear example of this is a video published by a marine biology PhD student in 2015 that features a turtle near the coast of Costa Rica, "in distress," with a 10-centimetre section of a disposable plastic drinking straw encrusted in its nostril (Figgener, C., 2018). The eight-minute video offers a close view of the researcher's hand slowly pulling out pieces of a plastic straw from the turtle's nostril with pliers. The turtle bleeds and shows clear signs of discomfort. The video became viral and has, as of July 30, 2021, more than 42 million views (Sea Turtle Biologist, 2015). It quickly became an emblem of the anti-straw movement. While there have been campaigns over time that seek to draw attention to the environmental harm of single-use plastics, this video is often credited as the "agitator" of a movement to ban plastic straws from establishments. It is beyond the scope of this project to measure the effects of this video, yet noting its high distribution and impact on usage of straws point to the large influence of visual representations of plastic waste and wildlife.

The images from the *Midway* series and the film *Albatross* did not generate responses to the same degree as the turtle video, which became viral. They did, however, produce a significant amount of online commentary and academic responses. Articles from popular news platforms (The Guardian, CBC), Facebook posts, Instagram posts, Reddit threads, YouTube videos that feature imagery for the series and the film, interviews and talks from the photographer, have generated comments from the public. The foundation *Artwork for Change* even released pledges for action that individuals can take in response to Chris Jordan's work. Art historian Amanda Boetzkes (2019) calls one of the images from the series (see figure 2 on p. 41) "an iconic image of the Anthropocene" (p. 234). Furthermore, Liboiron (2021) declares: "I have lost count of the number of academic presentations, usually in the humanities and social sciences, that use artist Chris Jordan's (unmarked) photographs of albatross carcasses on Midway Atoll with plastics in their rotting guts" (p. 104).

What is particularly interesting with this series is the variety of perspectives generated in response to the death of the albatross chicks. The viewer is asked to contemplate the death of these birds—shown by the photographer as a direct effect of plastic ingestion—and to reflect on the state of the world and our consumption. The photographer's purpose with the images is clear and he is actively taking part in the process of meaning-making of the photographs and the film. This is accomplished through text that accompanies the images, interviews, and talks that he gives on *Midway*, and his narration of the film *Albatross*.

Scholars from various disciplines of social sciences, education, biology and art history discussed the series and/or the film, focusing on different aspects. Scholars such as Langdon (2014) and Gerhadt (2018) examine the potential of environmental artwork to lead action. Langdon (2014) presents Jordan's online presence (website, social media) for the promotion of his series

and film as a positive way to encourage viewers and online users to rethink their patterns of consumption. In a similar vein, Gerhadt (2018) presents Chris Jordan's project *Midway* as one that is effective in drawing attention to the relationship between the global and the local. She credits the "quandary" (the state of uncertainty, perplexity) generated by these images, as a worthwhile solution to envision the effects of plastics which she emphasizes as "one of the markers of this petroleum age" (p. 125–126).

Other scholars, such as O'Gorman (2017), question the potential of using Chris Jordan's images in early childhood education. About the series of images, Gorman (2017) asks: "is it ethical to show them pictures of dead baby birds?" (p. 325). She studies the risks—that is, the potential harm that these images can cause to children—and the benefits—a better understanding of the effects of our mass consumption, pollution, and unsustainable practices—of teaching sustainability through these images. She argues that the risks are worth taking.

In her book *Plastic Capitalism: Contemporary Art and the Drive to Waste (2019),* art historian Amanda Boetzkes raises the important question, "how are we being asked to see? » (p. 236). She claims that the images of albatrosses are part of a larger "sense-system that is becoming-environmental" and that "the reality of entanglement is clear, but how we can bear it is not" (p. 237). This viewpoint further problematizes the call for action that accompanies these images.

Furthermore, Liboiron takes issue with Chris Jordan's work in their dissertation (2012) and in their book *Pollution is Colonialism* (2021). As previously discussed, Liboiron is the founder and director of the CLEAR lab, which means that they spend a significant amount of time dissecting fish, birds and seals guts in search of plastics. In both publications, they critique the lack of scientific data that demonstrate a causal link between plastic ingestion and the death of these

birds, although they clearly recognize the issue of ocean plastics. This is not for the lack of scientific data and recording of plastics ingestion of the laysan albatross. Liboiron (2012) therefore takes issue with the potential misdirection of action caused by images like Jordan's photographs, as their research focuses on activism that is "based on the materiality and specific wickedness of the problem" (p. 143). They claim that this form of activism is more "ethical, well-formulated, and likely to succeed because of the way it can match problems and solutions" (Liboiron, 2012, p. 143). Their critique is observed in more depth in the analysis, as their perspective is an important counterpoint to other viewpoints from commenters.

This brief overview of key perspectives on the series *Midway* and the film *Albatross* highlight a variety of responses from scholars. These perspectives will be further explored in the analysis section. The following section consists in an overview of my methodological approach to my data sources.

Methodology

My principal goal is to investigate how images of plastic waste contribute to governing action towards the environment and shaping responsible subjects. I am concerned with how images support power and knowledge relationships, not by reflecting or distorting the "real world," identities and social relations, as explains Machin (2014, p. 93), but by participating actively in modelling these relationships. As previously discussed, relations of power consist in shaping or "making up" subjects that come to "perceive, understand, and act in the world in a particular and predictable manner" (Hargreaves, 2019, p. 89). To do so, I will analyze online responses to imagery from the chosen case by paying close attention to the way in which commenters make sense of their role and of others' role and responsibilities in the plastic crisis. I am therefore using an interpretive approach to this research, given that I am more concerned with the ideas or

perceptions that people embrace about reality, rather than objective or factual reality (Neuman & Robson, 2018). While I acknowledge variations in the themes, ideas and perceptions observed, I prioritize a more in-depth description of the social phenomenon that I am observing and the people that I am studying, i.e., responsible subjects. While other forms of subjectivity will be mentioned in observation, less attention will be placed on them.

Choosing a theoretical approach of governmentality in this context offers a distinct framework to the study of power within contemporary society. Yet, it also presents challenges as Foucault did not elaborate on a formal methodology for studying governmentality (Murphy, 2018). Soneryd & Uggla (2015) claim that one can analyze governmentality by "focusing on visibility (what is revealed and what is concealed), technologies and practices (organizing principles and tools of governance), forms of knowledge that inform and arise from the practices used, and identities presupposed by the practices and technologies chosen." (p. 917). These authors further explain that the individualization of responsibility can be observed through different actors and technologies of government like "information campaigns, mass media, and products available for consumption". Following this reasoning, I postulate that we should understand images as technologies of government, of power, that are not independent from broader social structures, national context, and policy.

Departing from key concepts identified from my literature review and theoretical framework, I conducted a qualitative content analysis of online comments about Chris Jordan's images and work in the *Midway* series and the *Albatross* film. The qualitative content analysis is supported and contrasted with academic literature that discusses Jordan's series of images and film to contextualize the comments.

Data Sources and Collection

To establish a rich portrait of commenters' reactions, perspectives regarding the imagery, I drew from several sites for my analysis. First, I began by gathering the academic literature that addressed Chris Jordan's work on the *Midway* series and on the *Albatross* film. Some of the scholarly articles and book chapters were easily found through a combination of search terms such as "Chris Jordan", "Midway Atoll", "Albatross", but an important number of sources that mentioned this imagery were subsequently located by consulting literature on art in the Anthropocene, environmental art, and social science papers that addressed the plastic crisis. Then, I consulted a collection of articles, Reddit threads and Instagram posts that grappled with the visual content of *Midway* and *Albatross*, searching for material that had attracted commenters. The selected articles and posts consisted of at least fifteen comments. This number maximized the diversity of comments and made room for interaction between commenters, which I wanted to observe.

Based on my searches of different social media platforms and multiple Google searches using terms such as "Chris Jordan", "Midway Atoll", "Albatross the film", "Albatross plastic", "Dead birds with plastic", I gathered comments from one online article, two Reddit threads and one Instagram post. The comments obtained through these different platforms vary significantly for multiple reasons, one being the level of context of the images provided to the viewer. The Guardian article provides a high level of context as it includes quotes from an interview with Jordan. The Instagram post provides some context, as the photographer's account is "tagged" in the image, although he did not publish the image himself. Reddit posts offer no context for the images, as the name of the photographer is not included.

The online article is from the website The Guardian and is titled *Saving the albatross: "The war is against plastic and they are casualties on the frontline"* (Turns, 2018). It presents photographs from the *Midway* series, from the film *Albatross* and from the island. It discusses Jordan's film as well as his experience on Midway Atoll with the birds. The article includes descriptions and quotations from Jordan on the environmental and behavioural characteristics of the Laysan albatross, highlighting their majestic features and the atrocity of their death. The film is promoted as a "call to action to repair our broken relationship with planet earth" (Turns, 2018). The article generated 319 comments.

Additionally, I performed an initial scan of several Reddit posts to select six threads that addressed images from the Midway series and satisfied my requirement of a minimum of fifteen comments. After transcribing the comments from the posts word for word in an excel spreadsheet, I reconsidered the material as I became concerned with data saturation. After noting clear repetition in comments, I reduced the number of posts to three. The first and second Reddit posts were authored by the same Redditor, PrairiePunk, both posted at the same date, January 18, 2018, and contained the same image (see figure 6), but they were posted to two different communities with two different titles, therefore generating different comments. The photograph (Figure 6) also appears in The Guardian article. Concerning Reddit, the first post is part of the community "r/pics topics: Art" and titled *A baby bird albatross decaying around the plastic it ate. (Midway Island)*. It generated a total of 80 comments, of which 31 were deleted by commenters. The second Reddit post is part of the community "r/morbidlybeautiful" and titled *Albatross chick decaying around the plastic that killed it.* It generated a total of 16 comments, of which 4 were deleted by commenters. Lastly, the third post is part of the community "r/WTF". It is the most dated of the three, as it was posted on August 4, 2012. Given that the post contained rich exchanges, I opted to

keep these comments. The title read *Why we should be recycling every tiny piece of plastic* and the post contained a link to an Imgur post from August 4, 2012, which comprised 8 images from the series. The Imgur post had 28,146,645 views at the time of the data collection. The Reddit post consisted of 683 comments of which 237 were deleted by Redditors at the stage of transcription.

Figure 6: Photograph from the *Midway: Message from the Gyre* series (2009-present) by Chris Jordan

Lastly, the only Instagram post included in the selection of data consists in a post from *unplasticnation* dated January 24, 2021, that generated 20 comments and 17 replies, most replies from the author. It was the only Instagram post that generated a significant number of comments during the data collection. The post consists in an iconic image from the series, shown in the previous section (see figure 2, on p. 41) and the caption reads the following with a link to Chris Jordan's Instagram account:

> THIS is where plastic ends up when it goes into the ocean.
>
> Over 1 million seabirds are killed by plastic pollution every year. As we can see by this picture, the plastic is mistaken for food and consumed, takes up space in their stomach, which causes death by starvation or internal bleeding.

> Think about this image the next time you reach for a single-use plastic item (like the lighter which is clearly shown). Ask yourself, is your momentary convenience worth it?

The collection of these data sources took place between April 1, 2021, and October 15, 2021. Inspired by Murphy's (2018) approach to her study of governmentality within minimalism discourse, I transcribed word-for-word the comments from each data source in excel spreadsheets, noting when commenters were replying to another comment. In some instances, responses that contained only emojis, were off topic or offensive were not transcribed. While the comments were transcribed using excel, I proceeded to coding the articles and the comments using NVIVO which facilitated my qualitative content analysis of different data sources.

Coding and Analysis

To conduct a qualitative content analysis following my theoretical framework, I performed a mix of inductive and deductive coding beginning with themes that I observed in the literature and others that surfaced as I engaged with the comments. The purpose of qualitative content analysis is to organize large amounts of text into manageable categories that are determined in accordance with the explicit or implied meaning (Neuman & Robson, 2018). I considered the meaning of each comment in its entirety and assigned each comment to a code. I coded and recoded the comments a minimum of four times, modifying my codes repeatedly to become increasingly accurate in the representation of the data. Before approaching the comments, I identified codes related to governmentality terminology and to my conceptual framework: "Truth", "Education", "Action", "Responsibility" (which I divided into two subcodes of "Assigning blame" and "Taking responsibility" with further subcodes), "Waste management" were first identified. I further defined these codes as I worked through the coding process. "Emotions" quickly became an important theme.

Two models that grapple with responsibility guided my coding of comments. The first consists in von Scheve, Zink & Ismer's (2016) model that distinguishes attribution targets of blame from attributed logics of actions as constituting two distinct yet interrelated processes of crisis responsibility. They suggest four attribution targets which range from: "1. Specific, named individuals (human subjects) to 2. collective actors (e.g., groups, organizations, associations) to 3. ideologies, belief systems, economic or political systems, to 4. the network structure" (von Scheve et al., 2016, p. 642). Applying this model to the data offered a way to observe trends, commonalities, and differences in who is blamed for the plastic crisis, while also allowing me to observe whether these targets of blame are different from targets of action. Through the coding process, I modified my codes to reflect my data, which resulted in four targets of blame: 1) Other citizens, 2) Humans and "we", 3) Collective actors, and 4) Ideologies, belief systems, economic and political systems.

These targets of blame differed from targets of action. For targets of action, i.e. "who" commenters deemed as responsible for effecting change, my codes were inspired by Soneryd & Uggla's (2015) portrayal of different ranges of compliance, ambivalence and forms of resistance to responsibilization strategies in the context of green consumerism. They base their observations on a literature search on individualized responsibility and green consumption. They demonstrate how the "responsible consumer" subject position is accepted, negotiated, rejected, and how people can be indifferent to individual environmental responsibility. I coded my data based on two main targets of action: 1) Individual, and 2) Collective Actors. Individual responsibility (IR) was composed of six different subject positions: 1) Accepting IR, 2) Accepting but questioning IR, 3) Rejects aspects of IR but participates in IR, 4) Rejects aspects of IR, yet unclear, 5) Indifference to IR, and 6) Fully rejects IR. For a complete list of my revised codes, see Appendix A.

As explained by Neuman & Robson (2018), when conducting a qualitative content analysis, “the task at hand is not to count the codes, but to identify general themes that run through the different texts and to organize and link these general themes into a coherent theory about social life”. The codes allowed me to zero in on my data sources and begin to see patterns in the way commenters made sense of their subject position as environmentally responsible citizens. Through this process, I began to see the ways in which people were also engaged in “shaping and reshaping what is deemed normal and appropriate”, as Soneryd & Uggla (2015) noted in their research (p. 921). Importantly, I was particularly attentive to comments that directly engaged with the imagery, either by referring to albatross, birds, or using referents like “this”, “that” to address the images. The themes of visibility, knowledge and responsibility shape my analysis, which I present in the next section.

Analysis

The following section comprises results from data analysis and my reflections on the meaning of these results within broader literature. It is divided in three sections: 1) visibility, 2) knowledge, 3) responsibility.

Visibility

As previously discussed in the literature review, images act as a boundary between what is seen, visible, from what is unseen, invisible. The relation between what is made visible and what is invisible operates through power and governance (Traue et al., 2019). Visibility therefore consists in making visible certain things and rendering invisible others, which, in turn, creates shared ways of making sense and of feeling (Väliaho, 2014). In the literature review, I noted that visibility operates through power and governance as it encompasses the act of showing (choosing

what is visible and not) and the effect of this action. Consequently, I ask when viewing the images from the series: What is rendered visible and what is concealed? To which effect?

All the materials analyzed for this project either utilize images of the *Midway* series or refer to images of the series in text. The Guardian article features additional images along with text, such as the photograph of two albatrosses in flight (see figure 7) which is at the outset of the article. Further images in the article consist in the dissection of an albatross, followed by a photograph of the content of an albatross' stomach from the *Midway* series (see figure 6, p. 56). As with the first photograph of the birds in flight, the last two images in the article highlight the vitality of the birds: an albatross staring into the lens of the camera and a bird caring for its chick. These two images are from the film *Albatross*. They signal to human intervention, one focusing on the plastic content of the bird's stomach, and the other one showing the photographer dissecting the content of a dead bird's stomach with another live albatross staring at him.

Within the series of images, the content is consistently repeated. Most of the images feature the carcass of a dead albatross filled with plastic objects or pieces of various colours. The level of decomposition of the birds varies from image to image. Some birds are fully recognizable, beak intact and a body that retains its shape. Others are barely noticeable, as their bones and feathers blend in with a changing background of sand, dirt, and grass. The repetition of the content and composition of the images is noticeable, which also suggests that this phenomenon is recurrent, continual. All these birds have died with plastic in their bellies. As their bodies decompose and become indistinguishable to the human eye, the plastic bits remain relatively unaltered.

Figure 7: Photograph of an albatross in flight from *The Guardian*

Concurrently, the framing of the images from the series draws into focus the content of a bird's stomach. The viewer stares at an enlarged, decomposing individual bird corpse. This one-on-one experience emphasizes a sense of intimacy, as the viewer stares at the insides of a single bird. In this regard, Ray (2020) states: "the lens is forensic and intimate – near enough to this singular death for the viewer's nose to fill with memories of what a carcass by the sea smells like. After delivering its punch to the guts, the image yields to reflection and interpretation." (p. 16). Ray's use of the word "forensic" points to Jordan's photojournalistic style. The photographer claims that he did not move a single piece of plastic, which positions him as the messenger of this tragedy. Speaking of the style of these images, Liboiron (2012) claims that they "rely on the power of facts to persuade—and sometimes shock—their audience into action" (p. 20).

The framing of these images generates a sense of intimacy that Boetzkes (2019) problematizes. Writing from the viewpoint of an art historian, she asks upon seeing the dying albatross: "How can we bear the suffering of the albatross—its body overtaken by plastic objects—and our mortality and responsibility in one fell swoop?" (2019, p. 236). She claims that when faced with such an image, "the reality of entanglement is clear, but how we can bear it is not" (2019,

p. 237). In other words, the tragedy is clear as the focus on the bird and its stomach content is hyper-visible, yet no solutions are obvious. Broader context is absent, invisible.

In a similar vein, if we borrow Max Liboiron's (2021) terminology, we can say that these images focus on harm, but do not address the violence of the issue which is at the source of these harms. In this case, these images suggest that the effect of plastics killed the albatross, which draws focus onto harm. However, referring to their experience working in a science laboratory, Liboiron (2021) argues that whether they find plastics in any fish species (here, I extend this logic to birds as well), the violence, i.e., "the pipeline that moves plastics into waterways" ultimately remains the same (p. 85). According to them, this risks misdirecting and individualizing action.

While this is reflected in the comments, Boetzkes' (2019) speculation that viewing a visual scenario of this kind can lead to "a depressive paralysis in the place of responsibility" (p. 237) is prevalent. Despair is a dominant emotion expressed by commenters yet they rarely provide suggestions of actions. Despair frequently arises as a sigh of desperation at the state of "the environment". In this regard, two commenters who engage directly with images from The Guardian article summarize a sentiment that runs deep amongst others: "Save the albatross? Gawd if we only we could."[56] or "Wow, that picture of the dead bird full of plastic is truly shocking, we really are a lost cause."[7]. Similarly, a commenter reacting to an image of the series on Instagram claims: "Although a few many care, the vast majority do not. The only real solution is extinction, which thankfully we are heading towards anyway."[8]

[5] Examples of comments used throughout this section were transcribed verbatim from the sources to convey the original sentiment and ideas of commenters.
[6] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments
[7] Ibid.
[8] Instagram, accessed November 28, 2021, https://www.instagram.com/p/CKbcMQ4HRWs/

When confronted with the magnitude of the plastic problem, readers exchange personal stories and day-to-day observations in the comment sections, sharing their fears, worries and expressing feeling overwhelmed by the issues. In many of these stories, readers describe the amount or type of waste that they find in their immediacy, whether it is when walking on the beach in their region of the world, in their neighbourhoods with their dogs or driving on the highway. When sharing these stories, many emphasize the constant flow of litter and express a general sense of hopelessness. The following comment reflects a concern for the scale of the issue, leading to feeling overwhelmed and resulting in a negative assessment of future possibilities:

> I've been picking up what I can recycle from beside the roads for a while now, but the tide is unrelenting. If anything, it's getting worse. Even here in Switzerland, huge volumes of rubbish are just tossed out of moving vehicles and end up in cows and streams. It may not be a large proportion of drivers, but the cumulative effect is overwhelming. I despair of my own species.[9]

While it is important to realize that this form of data presents limits, as it represents only a glimpse into a commenter's thoughts and actions, it is disconcerting to notice a tendency to view the plastic crisis as a catastrophe without solutions.

While despair and an overall tendency to point to the catastrophe of the situation is prevalent amongst commenters, other identified emotions are worth noting. Within the Reddit comments, humour often expressed through making jokes about the subject matter—the death of birds, recycling—is common. Some common examples are: "There's my bottle cap collection!"[10]. "Hey i think i found my retainer!!"[11], "Why we should be recycling birds as plastic."[12], or "If you find the carcass early enough you could still use the bones for soup. Then make some chimes.

[9] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments
[10] Reddit, accessed November 28, 2021, https://www.reddit.com/r/WTF/comments/xp5lb/why_we_should_be_recycling_every_tiny_piece_of/?sort=qa
[11] Ibid.
[12] Ibid.

Yay!! Recycling!!"[13]. These comments portray an overall dismissal of the content, which I understand as a lack of interest or care for the subject, or as a coping strategy in response to the content of the images.

If we consider images as techniques of governance which direct, enable and/or restrict the scope of possibilities for actions by engaging specific subjects and enabling calculated reactions, we can see how the framing and content of the images directly affects the ways in which it will be received. Imagery serves the purpose of regulating and shaping human conduct by orienting our vision towards certain interpretations of an issue. In this context, I suggest that the hyper-focus on the content of a bird's stomach, the intimacy of the images, the absence of a broader context to the images triggers emotional states tends to restrict the scope of action of the viewers. Of course, this is not unanimous, as commenters from different sources of data express feelings of hope. Some comments read: "Plenty is bring done, all over the world. Despair won't get you very far. Yes, we have a long way to go, but the idea that nothing much is happening is simply wrong."[14], "We can solve this."[15], and "(…) My feeling is that good intentions are very important when it comes to the environment, and the constant hope that we can do it better is what will sustain us long into the future, especially when our technologies are advancing so quickly".[16] These commenters attempt to remind others of actions that are taking place to remedy the situation.

In light of these reactions, I contend that what is rendered visible in these images, i.e., the hyper focus on waste in the stomach of mostly individual dead birds, informs reactions from viewers by triggering emotional responses. Viewers either come to empathize with the birds and/or

[13] Reddit, accessed November 28, 2021, https://www.reddit.com/r/WTF/comments/xp5lb/why_we_should_be_recycling_every_tiny_piece_of/?sort=qa
[14] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments
[15] Ibid.
[16] Reddit, accessed November 28, 2021, https://www.reddit.com/r/WTF/comments/xp5lb/why_we_should_be_recycling_every_tiny_piece_of/?sort=qa

reject the experience through dismissal or humour. The focus on waste as *out of place* in this intimate setting invites the viewer to reflect on their responsibility in the death of these birds. Yet, commenters and scholars also question this way of representing the plastic crisis, as is observed in the following section.

Knowledge

Another important set of questions that I ask when approaching the images and analyzing commentary is: What do we learn by viewing these images? How is this knowledge accepted and contested by viewers?

Most commenters who view these images draw a direct correlation between the death of the birds and the plastic found in their stomachs. The assumption is that albatross die from ingesting plastics. For O'Gorman (2017), the message contained in these images is clear: "*This is what happens when people let their plastic enter the oceans – innocent baby birds choke to death*"[17] (p. 329). The photographer explains the death of these birds through "starvation, toxicity, choking" (Jordan, 2010). As previously discussed, images and videos of animals intertwined with plastics are becoming part of our western understanding of the effects of plastics. I understand this reading of these images as common sensical given the historical moment in which we find ourselves and the shared norms and practices that value many plastic products as waste and as *out of place*. Yet, while most commenters take the reading that plastics lead to the death of birds for granted, others experience these images and their meaning differently. These experiences are important as they complexify the role played by images in shaping our understanding of the plastic crisis and our responsibility.

[17] Emphasis added by the author

Firstly, amongst Reddit commenters, the production of the images is often questioned. In different posts, commenters repeatedly question whether the images from the *Midway* series are staged by the photographer or if the images document an unaltered reality. There is active suspicion and disbelief, which I understand as a refusal to *see* the effects of our plastic consumption through a lens of death and morbidity. Comments such as "Don't think this is real."[18] , or "Wait... This is fake right... If not, holy crap"[19] appear on multiple occasions, generating a series of exchanges amongst commenters on the origin of the photographs and whether its content is staged or "real". Within these exchanges, commenters who offer sources of information or lived experience of the suggested phenomenon (birds dying from plastic ingestion) succeed in convincing a few Redditors that these images document a real phenomenon. This is often achieved by quoting and offering links to Chris Jordan's website, videos uploaded by the photographer of bird dissections in the beginnings of the series, or by having witnessed the phenomenon, as is the case in the following comment:

> I've been to Midway and personally taken part in bird dissections. Young albatrosses that do not yet have the ability to vomit frequently starve to death with stomachs full of plastic. These carcasses rot away with the offending plastic long outlasting the rest of the bird. I've taken similar photos, but NOAA owns them and I cannot post them here. That's why places like Laysan and Lisianski, that have never been inhabited by people, are covered with a confetti-like littering of plastic from the millions of birds that died there. If he faked the photos, he didn't have to[20].

Single experiences like these tend to convince other commenters of the reality of the observed phenomenon, yet, some commenters increase their efforts of discrediting the images, noting the colourfulness of plastics, the lack of bones, the positioning of the feathers as unusual. In such

[18] Reddit, accessed December 28, 2021, https://www.reddit.com/r/pics/comments/7rbx3w/a_baby_albatross_decaying_around_the_plastic_it/
[19] Reddit, accessed December 28, 2021, https://www.reddit.com/r/pics/comments/7rbx3w/a_baby_albatross_decaying_around_the_plastic_it/
[20] Ibid.

situations I ask: is this an attempt to avoid having to bear the suffering of the albatross? Is this an attempt to distance oneself from having to reflect on one's role and responsibility in the death of these birds? These questions remain unanswered. It is, however, pertinent to note that there is an active refusal amongst Reddit commenters to *see* and therefore *understand* the phenomenon of plastic waste in the proposed manner. They do not unanimously accept the information transmitted in these photographs.

Secondly, there are two concepts that arise from the academic literature on Chris Jordan's imagery that I want to discuss. As mentioned in the literature review, Liboiron (2012) employs Bruno Latour's concept of "theater of proof" to problematize images of plastic waste like Chris Jordan's series. Similarly—yet, to a different end—Gene Ray (2020) claims that images from this series resemble "bodies of evidence". Both concepts are concerned with exposing truth yet problematizes the ways in which this "truth", evidence, proof is rendered to the viewer. I suggest that framing these images through these concepts reinforces the argument that images in the case of the plastic crisis can be understood as technologies of government. They are utilized to serve a specific end which shapes the viewer's understanding of the phenomenon. The setting is intimate and shocking. It suggests that plastic kills wildlife. As we will see in the following sections, given our current historical moment, this logic leads us to rethink our consumption, our waste management. These ideas are legitimate, yet, larger cultural (e.g., disposability) and structural issues (e.g., mass-production, petroleum extraction) remain relatively untouched with this critique.

In an interview with The Guardian, Bruno Latour claims that science has "always had to theatricalise proof" to effectively change perceptions (Todd, 2020). He uses this term in relation to Louis Pasteur's work:

> Pasteur was quite a showman, flogging a non-vaccinated laboratory sheep to prove it had really died of its ailments, taking a crowd into a vineyard to prove—to an incredulous Burgundy winemaker—that he could sterilise bad bacteria. Unfortunately though, in France, our rationalism has now flattened out this kind of thing. (Todd, 2020).

Liboiron therefore employs this concept in relation to the series to problematize the way in which Chris Jordan relies on what appears as facts to shock the public into action. With the images, "the phenomenon is immediately apparent, in black and white" (Liboiron, 2012, p. 140). "It is obvious that ocean plastics exist and are a problem. They are harmful. They kill animals. Something must be done. Run and tell your neighbours" (Liboiron, 2012, p.141). Yet, they claim that these images provide different kinds of evidence from ingestion data gathered by scientists on this species of birds. The Laysan Albatross of Midway Atoll are a well-studied population that are considered a k-selected species, which means "species whose populations fluctuate at or near the carrying capacity of the environment in which they reside" (Rafferty, 2021). A review of these studies is beyond the scope of this research project. This said, Liboiron (2021) explains the phenomenon, describing the death of these birds as "Natural" (p. 105). They clarify:

> This high rate of death for young albatross is normal. For young albatross on Midway Atoll, "morbidity can be substantial with 1000+ chicks dying per day". This has happened since time immemorial, since before plastics. It's just that now, when they die, they have also ingested plastics. There is no scientific evidence for causal effect between the two. This does not mean that their ingestion of plastics doesn't involve types of harm that exceed science or that plastics are totally fine for birds to eat, but that ingested plastics are not the determining factor in these birds' deaths. (Liboiron, 2021, p. 105)

Liboiron (2012, 2021) is concerned that conflating the cause of death of these birds misdirects the attention and therefore forms of action. Their worries are reflected by a few commenters. In viewing the series of images linked to a reddit thread, a commenter remarks: "Plastic gullet stones. This is a modified, but natural behavior. Using plastic rather than stones is probably lighter and easier on the bird. This may actually be a good thing."[21]. Concurrently, a commenter from The Guardian engages in multiple debates in the comment section, claiming that equating the death of albatross with plastic consumption is concerning given that there is a risk for the science community to lose credibility. He explains:

> We are in a global situation of extreme environmental crisis. Environmentalists (defined as those interested in changing public policy to minimize damage to the environment that sustains us) must therefore choose their cases to argue on very carefully, and make our arguments fact- and science-based. If we are seen to be 'crying wolf' or misrepresenting cases (e.g., the dead Laysan Albatross chicks) to lie and manipulate a gullible public with click bait, this is going to be found out and we will lose both credibility and our power to affect positive change. There are plenty of excellent seabird cases to use to bring awareness to environmental issues. The way Laysan Albatross is being misused here is not helpful[22].

The suggestion with this line of critique is that the knowledge produced through these images is at the expanse of scientific facts, which runs the risk of destabilizing the credibility of environmentalists and scientists and misorienting action. What is particularly interesting in this regard is the way in which the images produce an individual and collective experience that promotes a form of evidence about a phenomenon. The framing of the problem within these images produces distinctive knowledge about the reality of the situation. As Foucault explains: "…power produces; it produces reality; it produces domains of objects and rituals of truth" (1977, p. 194; Lemke, 2016, p. 11). In this case, the images are used as evidence of a direct correlation between

[21] Reddit, accessed November 28, 2021, https://www.reddit.com/r/WTF/comments/xp5lb/why_we_should_be_recycling_every_tiny_piece_of/?sort=qa
[22] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments

plastic consumption, inefficient disposal, ingestion, and death. They direct our understanding of the effects of plastics towards death, which, in turn brings the viewer to reflect on his or her actions.

Concurrently, the concept of "bodies of evidence" utilized by Ray (2020) in his analysis of the series is similar to "theaters of proof" yet Ray's use of the term leads to another conclusion. Ray (2020) explains that "Bodies of evidence" is coined by cultural theorist Eva Horn in relation to the conflict of representation of the environmental crisis of the Anthropocene. According to Horn, the creation of evidence, through the Sublime, is necessary to capture a world that is fleeting. Horn asks: "How can we start to sense what we only know abstractly?", to which she answers: "Producing such bodies of evidence seems like an impossibility – and at the same time, more necessary than ever" (Horn, 2017; Ray, 2020, p. 15). In this sense, Ray (2020) presents an image of *Midway* as "coming close to the sublime "bodies of evidence"", highlighting the importance of its effect on viewers, whether or not the plastic "starved to death this individual bird, or merely added stresses to the other factors that killed it" (p. 16). For him, this photograph, as unenjoyable as it is, offers a form of teaching and insight of a slow disaster that is difficult to render in images.

In all, I have identified two dominant reactions amongst commenters who question the insight provided by these images on the effects of plastics. The first reaction consists in rejecting or questioning the legitimacy of these images, suggesting that they are staged, which points to disbelief. The second reaction consists in problematizing the use of albatross corpses to transmit the message that plastics kill wildlife. This critique is supported by Liboiron (2012, 2021), who is concerned that framing the issue in this manner has the potential of misdirecting action. While Ray (2020) recognizes that plastics may not be the cause of death of these birds, he understands the knowledge acquired through these images on the effects of plastics as important. What is learnt from these images concerning the tragic effects of plastics is therefore challenged, yet I suggest

that this further speaks to the power of these images and their ability to shock by contextualizing plastic waste in one of the most unexpected places: inside bodies. The analysis further continues in the following section in which I examine how commenters make sense of individual responsibility when they are confronted with the knowledge acquired by viewing these images.

Responsibility

As identified early into the project, responsibility is an important concept that arises both explicitly and implicitly in the text that accompanies images as well as in the comments of the materials analyzed. When considering responsibility, it is interesting to address "what is widely *considered* the cause of the crisis" and "who is widely *made* responsible" (von Scheve, Zink & Ismer, 2016, p. 637). In most cases, the actor, set of actors, group, or ideology who/which are seen as responsible for causing the crisis are also made responsible or held accountable by the commenters for solutions. This said, this correlation does not always apply as will be discussed with examples throughout the following sections.

Although these images have a potential to unsettle and generate a strong emotional reaction amongst viewers that lead to internalizing responsibility, I notice that people respond to this "call" in varied ways. Based on my analysis of the comments from the article, Reddit posts and Instagram post, we can see that individual responsibility is accepted by individuals, contested, and at times rejected. I therefore ask: through which practices and actions is individual responsibility accepted and resisted?

Accepting Individual Responsibility

When we discuss governmentality in a neoliberal order, neoliberal rationality emphasizes personal responsibility for larger institutionalized issues and social conditions. In a neoliberal rationality, individuals should be moral actors and rational consumers. Within the dataset, there

are numerous commenters who demonstrate a clear acceptance of individual responsibility, with some nuances in the degree of acceptance. I begin by discussing noticeable trends in targets of blame to highlight the ways in which the commenters make sense of their self-responsibility in relation to others. Following this, I discuss the practices of "clean-ups" and "recycling" as two main actions through which commenters assume a responsible conduct. I also present critiques of these actions.

Blame. Before starting the coding process, I had identified the "self" as a target of blame, following von Scheve, Zink & Ismer's (2016) categorization of attribution targets of blame. As the coding evolved, I removed this code, noting that most reference to the "self" is made as part of taking responsibility for change, not as the target of blame or the cause of the issue. When individuals state their acceptance of self-responsibility, most assign blame to specific "others", e.g. a neighbor, kids at the beach, dog walkers, recycling plant workers, or to a generalized group of which they are part of, like "humans" or use the pronoun "we".

Firstly, when other citizens are the target of blame, commenters compare their environmental actions to those of other individuals. Most often, other citizens become the target of blame because of actions of littering, purchasing items wrapped in plastic, not recycling, or being perceived as not caring for the environment. By identifying these actions as an active problem in relation to the plastic issue, most commenters position their individual actions in opposition to those of others, acquiring a sense of moral superiority over other citizens. Commonly referenced "responsible" individual actions include recycling, beach clean-ups, picking up litter on the road or on walking trails, leaving packaging at the grocery store checkout, asking people in their entourage to stop littering. For example, two commenters shared:

> A friend came to visit, everything she bought had to be organic ... milk in a plastic bottle, mince in a styrofoam container. When I pointed it out to her she insisted her child had to have organic, it's so much better for you. No care about what's better for the Planet.[23]
>
> Do you not own a car? Do you walk/ride a bike to work? I hope you do. I attended a ultra run recently(50 miles in the hills), I drove my 50 MPG 3cylander car. I thought this lean healthy group would all of course all be driving electric or hybrid or efficient small cars like mine..... nope more big fat gas guzzler trucks and SUVs. During the race they even made us use paper small cups for water stations instead of plastic as better for the environment... Very hypocritical... recycle all but drive a big fat car... got to wonder.[24]

In these passages, commenters demonstrate an acute awareness to plastic waste and concern for other people's actions. The first commenter focuses on consumption habits as an indicator of other citizens' level of concern or care for the planet. It is implied that this commenter closely self-monitors their own consumption of plastic and considers zero-waste practices as more important than prioritizing buying organic food. This frames the plastic crisis as a consumption problem. In this case, the commenter actively attempts to control the conduct of their friend by commenting on their consumption of plastic and imposing their attitude towards plastic as the "right" way of caring for the planet. Vocalizing concern over the conduct of others is also reflected in the second comment. The commenter begins by directly addressing the other commenters and readers: "Do you not own a car? Do you walk/ride a bike to work? I hope you do.". This commenter takes issue with the use of vehicles, judging fellow runners as "hypocritical" because of conflicting environmental practices (running ultra-marathons, drinking water out of paper cups instead of plastic vs. driving an SUV). By pointing out others' actions of littering or consumption habits that are deemed careless, these commenters further define themselves as responsible, moral actors.

[23] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments
[24] Ibid.

Clean-ups and anti-litter actions. As previously noted, commenters suggest beach clean-ups, picking-up litter on country roads, highways, sidewalks and taking individual action against littering as effective solutions. A commenter declares:

> Oceans and albatross are wonderfully exotic to me, but saving can be local. I clean a stretch of lake beach in Geneva every morning when walking the pooch. The winter storms cause a continual beaching of plastic, and in summer the day trippers come with endless plastic. It's so disheartening, but I'll not stop. There's even a Sea Shepherd Switzerland.[25]

In this passage, the commenter demonstrates an acute awareness to plastic waste that points to internalized norms of individualized waste management. Plastic waste is the result of littering that is seen by the commenter as being *out of place* and therefore requires ordering. Waste must either be ordered or must be eliminated completely, through acts of self-responsibilization. A similar trend is observed in the following exchange:

Commenter 1:
I witnessed a group of school children eat chips outside a shop, I won't say where but when they had finished eating they just discarded the wrappers onto the pavement. Even though there were bins near by. I have run after some people to pick up their discarded waste and give it back to them. They are embarrassed but usually put it in the bin where it should be. "She who must be obeyed" has remarked that I will get a beating one day. she might just be right. Perhaps education of keeping our planet clean might start in school.

> Commenter 2:
> The odd time I've done that I've been told where to go. The children involved they had they school uniforms on so I complained to the head of the school who failed to reply so wrote to the Board Of Governors who replied back that there were regular patrols of teachers from the school. I was shocked at such a blatant lie
>
> Commenter 3
> Too bad it can't start in the home but yes, from a very young age, surely teachers could work 'litter and what it does to the environment' into their lessons; heavens it could start in nursery school.
>
> Commenter 4
> Maybe the education of keeping our planet clean should start from day one of a persons life, we need to totally change the way we interact with our planet and what impact we put

[25] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments

> upon it, I live in Italy in a seaside town and after a storm the beach is littered with plastic, the commune clean it up and the next storm brings more in, I believe only fundamental changes will make a difference, we wont destroy the earth it will destroy us..
>
> Commenter 5
> No, it starts in the home. I've been doing what you do for years, always saying "excuse me, I think you've dropped something." If necessary I point to the nearest rubbish bin. Never been beaten up yet but been subjected to some bad language[26].

In this exchange, commenters take a further step by actively confronting those who litter and filing complaints to authority figures in the hope of reinstating a form of discipline. Commenter 2 actively participates in reinforcing "respectable" norms around littering by attempting to reinstate a local institution's responsibility for disciplining the littering habits of children at a school. It is suggested in this exchange that early education on appropriate behaviors and norms around littering must be taught to children early at home or by teachers. These commenters actively participate in monitoring the conduct of others to keep trash in its "right" place, meaning in a recycling or garbage bin.

Scholars who write on the plastic crisis often critique beach clean-ups and anti-littering campaigns because of the overall inefficiency of these solutions. Dauvergne (2018) notes that while results of beach and park clean-ups organized by volunteer citizens are impressive, efforts "pale in comparison to the scale of marine pollution from plastic bottles, wrappers, bags, and cigarettes" and have "little capacity to reduce primary microplastic pollution" which now originate in large part from washing synthetic clothes (p. 27). Furthermore, as noted by Liboiron (2012), there is a concern with clean-ups that actions could be misdirected by focusing mainly on the aftermath of production and consumption, instead of taking issue with the social, cultural, economic and political forces that allow large volumes of plastic to be produced and to inhabit our

[26] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments

oceans in the first place. While beach clean-ups and anti-littering campaigns might not be the most effective solution to the removal of ocean plastic waste, Liboiron (2012) notes how beach clean-ups can have positive effects of community building.

Recycling. Recycling is a "well-structured direct outlet for direct action" in the context of separating waste to eventually introduce some materials, like plastic, back into beneficial use (MacBride, 2012). Yet, the efficiency of this method is consistently questioned, with reports showing low recycling rates globally (Geyer et al., 2017 notably offer a comprehensive portrait of the fate of plastics produced worldwide). A report from Environment and Climate Change Canada issued in 2019 estimates that 4,667 kilotonnes of plastic products are introduced on the domestic market each year, with approximately "nine percent of waste recycled, four percent incinerated with energy recovery, 86 percent landfilled, and one percent leaked into the environment in 2016" (p.ii).

Recycling is a practice that is contested in the data, yet it is still actively endorsed by many commenters as the most viable solution to mitigate the effects of the plastic crisis. Overall, most commenters seem aware of some of the shortcomings with recycling. This is observed in commenters who share personal experiences with recycling, noting some disappointment with how things operate around them, others who comment on larger waste management issues, and some who suggest technical ways to ameliorate recycling. It is also important to note a common sentiment of despair amongst commenters, some of them who turn to recycling because they feel powerless, and others who give up altogether.

As previously seen with clean-up activities, recycling is a practice through which commenters come to negotiate their identities as environmentally responsible subjects in contrast

to an "irresponsible other" (individual, company) by noting how others behave inappropriately. This is observed in the following comment:

> I worked in an upscale caff (in the USA) and was delighted when my boss put out a bin marked 'recycle.' More people started coming to us because of this, so people did care. Then one day the owner told me that they didn't recycle, it all went into the trash. He thought it funny. It then became my job to daily take it to the recycling. I'll never forgive him for that.[27]

In this passage, the commenter marks a clear contrast between the importance that they give to recycling and their boss' irresponsible behaviour, which fuels their decision to dispose of recyclables properly. The commenter's resentment towards their boss is noticeable, as they note that they will not forgive them for pretending to recycle. By identifying another person's action as irresponsible, this commenter reinforces his or her position as a responsible subject. Here, I notice the way in which Chris Jordan's images and the accompanied text bring commenters to speak of tensions and resentment towards other individuals.

Furthermore, there is a common sentiment that recycling is "as good as it gets". By this, I mean that commenters operate within a restricted field of possibility, not seeing other solutions despite being aware that recycling does not measure up in comparison to the seriousness of the issue at hand. I understand this as stemming from a well-established recycling infrastructure in wealthier nations and practices of responsibilization through recycling that are taught early in childhood and monitored in society. By learning that recycling is *the* way to mitigate plastic pollution, individuals manage their responsibilities in accordance with this practice. Learning of the shortcomings of this method can therefore lead to frustration or despair, as seen in the following comments:

[27] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments

> (…) First everyone says to recycle, it's good for the Earth! Now recycling is bad for the planet?? It's like the whole eggs debacle. Are they good for your health, are they bad for your health? I give up.[28]

> "(…) We couldn't even get plastic bags stopped, as if people can't be arsed to take their own bloody bags. I'll recycle and avoid as much plastic as I can till my dying breath fully in the knowledge that my little sacrifices, doing without certain things I like, will make not one iota of difference."[29]

I speculate that there is a pattern between the assignment of responsibility to others, preaching for individual practices of waste management, and feelings of frustration and despair when commenters realize that their efforts are not making a significant difference to mitigate the effects of the plastic crisis. This pattern is discussed in more length in the next, concluding section.

Yet, some commenters "double-down" on recycling as a strategy to influence corporate decisions of waste management and plastic consumption. Committed individuals in The Guardian discuss leaving plastic at supermarkets to influence store management to stop carrying plastics. Responding to a commenter who questions the efficiency of this method, a commenter explains:

> That's probably true, but part of the point of leaving the packaging with the supermarket is that commercial waste disposal costs money - more if it's not destined for recycling. If enough people leave their packaging behind the supermarkets' costs will rise which will lead them to reduce the amount or change the type of packaging used in their products.[30]

Recycling is a dominant subject of discussion amongst Redditors. Within the Reddit comments, I draw a direct correlation between the title of the most popular thread of the sources analyzed, which reads: "Why we should be recycling every tiny piece of plastic". This title accompanies a link to Chris Jordan's images, yet it is important to note that the photographer is not mentioned. The photographs are therefore used as evidence for the claim that we should recycle

[28] Reddit, accessed November 28, 2021, https://www.reddit.com/r/WTF/comments/xp5lb/why_we_should_be_recycling_every_tiny_piece_of/?sort=qa
[29] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments
[30] Ibid.

every tiny piece of plastic, given that birds will ingest these pieces and presumably die. Furthermore, the exchanges amongst Reddit users who either encourage recycling or constructively question the limits of recycling often point to technical limitations or highlight the necessity of technological advancements as solutions, which demonstrates a level of care or concern for the betterment of this practice. As explained by a commenter: "Recycling isn't perfect. It should be done, but people should be aware of the practical limitations of the current systems and technology. Acknowledging the issues are how we're going to make them more efficient and effective."[31]. Amongst technical solutions, commenters discuss a better numbering system for identifying plastics, the potential of biodegradable plastics, different uses (e.g., building materials) for recycled plastics, ways to collect recyclables, ways to mitigate the pollution of recycling trucks.

Negotiating and Challenging Individual Responsibility

Fundamentally, power exercised through different techniques of governance shapes the possibilities of individual and/or group action. As discussed in the previous section, common individual practices that reinforce self-responsibility can have some short-term beneficial effects yet fall short in achieving effective change in the case of the plastic crisis. Although individual actions remain valuable, Soneryd & Uggla (2015) warn that individualized responsibility can lead to the "depoliticization of environmental degradation", instead of encouraging citizens to mobilize and find more effective systemwide solutions for industry problems (p. 926). A commenter summarizes this sentiment:

> We are at risk of getting distracted from the source of the problem by focusing on actions we can take as individuals or as a country that while good in themselves are largely insignificant to the global problem.[32]

[31] Reddit, accessed November 28, 2021, https://www.reddit.com/r/WTF/comments/xp5lb/why_we_should_be_recycling_every_tiny_piece_of/?sort=qa
[32] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments

As exemplified by this passage, when considering subjectivity through a Foucauldian lens, we understand that individuals might respond differently to calls to different identities by questioning "models" of the self that are presented to them. Within the dataset, some commenters actively question practices and/or actions that individualize responsibility. In the following paragraphs, I consider noticeable trends in targets of blame to highlight the ways in which commenters hold collective actors, ideologies, economic and political systems accountable. Following this, I discuss the framing of "The Problem is Elsewhere" and the ways in which commenters make sense of industry and governmental responsibilities.

Blame. Commenters who actively question or challenge the efficiency of individual action tend to point to collective actors and ideologies, economic or political systems as the cause of the crisis. Collective actors who are commonly targets of blame are politicians, corporations, and businesses like Coca-Cola, Nestle, Pepsi, as well as specific sectors of industry like Big Oil, the petrochemical industry. Most often, commenters who deem collective actors as responsible for the plastic crisis focus on one actor. The following comment is a clear example of this trend:

> A substance used as a throwaway item that doesn't break down is surely mankind's dumbest move. At least in the 50's awareness if it's impact was unknown. However the profit grubbing pigs that launched micro beads in beauty products in the last decade knew precisely the damage they would do, but went ahead and unleashed them on our oceans anyway.[33]

The commenter initially speaks of plastic as "mankind's dumbest move", yet focuses his/her attention on the makers of beauty products containing microbeads. This critical viewpoint focuses on blame, rather than targets of actions. Most commenters who name collective actors as targets of blame also tend to hold them responsible for their actions, suggesting little engagement with

[33] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments.

individual responsibility. This demonstrates that an important number of commenters are aware of and concerned about the actions of corporate or governmental entities.

Similarly, ideologies, belief systems, political or economic systems that are named as the target of blame are capitalism, communism, the "waste culture", environmentalism, pseudo-science, tradition. The most common target of blame was difficult to classify, as it consists in specific continents, countries, or ideology of "west" vs. "east". This line of reasoning is observed in more depth in the following paragraphs.

The Problem is Elsewhere. A common line of reasoning from commenters who assign responsibility to collective actors or ideologies, political or economic systems is that "(…) the real problem and therefore the real solutions are elsewhere"[34]. This "elsewhere" is referred to as: "poorer countries", "third world countries", "developing countries", Asia in its entirety or specific countries such as China, Thailand, the Philippines, Indonesia, Vietnam, India, Bangladesh, Pakistan, or Africa in its entirety, coastal countries of Latin America. The location of the commenters cannot be clearly identified, yet the "West", "developed countries", "first world countries", the UK, Australia, often act as the counterpoint to "elsewhere". The following comment encapsulates a prominent sentiment:

> It's not about blame. It's about reality and prioritising resources to tackle this catastrophe, which is almost completely caused by certain developing countries. The reality is that waste management in the developed world is pretty effective at keeping the vast majority of plastic waste out of waterways and the oceans. Although more can and should be done, any improvements in the way plastic is used or disposed of in developed countries will have utterly negligible impact on albatrosses and the problem of millions of tons of plastic being dumped in the world's oceans, no matter westerners do.[35]

[34] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments
[35] Ibid.

This commenter suggests that "developing countries" are responsible for the death of albatross and the prominence of plastic ocean dumping and that "developed countries" have no role to play in these situations. This comment, like most within this theme, focuses on waste management as the main problem and solution for tackling the plastic crisis. The common concern is that "developing countries" are the biggest source of plastic pollution and do not possess the correct or appropriate infrastructure to dispose of waste according to "developed countries" standards.

To further contextualize this sentiment, it is important to note that there are, in fact, multiple reports that identify countries such as China, Vietnam, Thailand, the Philippines, and Indonesia as dominant sources of plastic pollution (see Dauvergne, 2018 for an account of sources of plastic pollution). Yet, focusing solely on the "source" of plastic waste does not account for the complex and largely opaque global trade of plastic products, materials, and waste as well as the unequal power relations that permeate these trading structures. The US, Japan, Germany and the UK are known as the predominant exporters of plastic waste (Dauvergne, 2018). China was a leading importer of this waste, until it announced in 2017 a policy banning the import of nonindustrial plastic waste (Brooks, Wang & Jambeck, 2018). Dauvergne (2018) notes that the export of plastic waste has inflated plastic recycling rates across the EU significantly during the beginnings of the 2000s. In addition to recycling rates inflations, products that are designed for waste disposal infrastructures of wealthier countries end up being managed by countries that do not have the capacity to manage all this waste. Wealthier countries eventually develop programs to help mitigate the poor management of this waste. Consequently, this constant focus on waste management benefits industry in the sense that it identifies the issue at a stage where the products are already produced, that is, towards the end of life of these products.

Subsequently, there is an important thread within this theme which identifies specific continents or countries as the target of blame for plastic pollution, yet still focuses on individual responsibility. This is observed in the following comments:

> I doubt that the third world shopper will stop off for a takeaway latte and a plastic wrapped (and labelled) muffin on their way home either. OUR lifestyles and OUR consumerism are the problem. If the third world has a problem it aspiring to be like us.[36]

> Sad but true Aussie. I've travelled extensively in Asia, particularly what's considered 3rd world countries, and the plastic used there and discarded and which then finds its way into the oceans and rivers is overwhelming. In Bali there's a daily tractor sweeping the main beaches and the piles are 12ft tall, every day. Then the plastic and other detritus is just burnt. It's all about convenience. Swimming in an ocean you end up covered in bags and other human waste. People know what it does but it's down the list of their priorities until it directly impacts them and living and making a crust is more important. We complain about rubbish in our 1st world countries but we have it good compared to most of the Asian oceans. It's so desperately sad seeing it and knowing that whatever I do isn't enough to make the slightest difference. Change will only come from governments and there's just not enough interest from their people to make a difference.[37]

Both commenters reflect on the issues of plastic pollution on a wider scale, yet they are simultaneously involved in shaping and reshaping what should be understood as normal and appropriate individual behaviour in relation to the issue. While the first commenter is critical of "first world" individual takeaway consumption habits, the second commenter takes a paternalistic, colonial perspective on the perceived lack of action of the Balinese people. The overall assumption that people only care about waste once it impacts their livelihood is moralizing. Furthermore, the commenter positions himself or herself as a victim of these "bad" behaviours as he or she expresses his or her powerlessness in the situation. According to this commenter, it is because of the lack of interest of people that governments will not act in relation to plastic waste. Within these comments, individual responsibility is made sense of within a larger context, yet the issue of plastic pollution

[36] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments
[37] Ibid.

remains within the scope of individual actions. In addition to further reinforcing the message of where waste does and does not belong, these individuals also participate in further defining who is considered a responsible subject through observed practices or lack thereof in relation to waste. Putting aside comments that bring attention to the geopolitics of waste, the following paragraphs discuss how commenters explicitly challenge individual responsibility for the plastic crisis.

Industry and Governmental Responsibility. Another important line of commentary that is worth noting pertains to challenging the individualizing of responsibility by assigning responsibility to industry and government. These commenters acknowledge the tendency to take personal responsibility and dismiss or defend this approach by assessing its potential to effect meaningful change. They demonstrate an awareness of corporate or governmental actors' role to play in the scope of the plastic crisis. This is visible in the following comment:

> Reading some of the comments here - good to take some personal responsibility but naive to think that personal recycling is anything other than a drop in the ocean in terms of mitigating our impact on our environment. Root and branch change in the way we exploit and consume is needed if there is to be any real improvement.[38]

However, the viewpoint that root and branch change is the solution is not shared unanimously. There are commenters who blame industry and government yet advocate for individual actions and collective organizing as the main solution to the plastic crisis. These commenters express concern of industry and government's willingness to effect meaningful change. They therefore posit that change will come from the "bottom", i.e., the people. This is expressed in the following comment: "We all have to start somewhere - local solutions to local problems. Don't expect politicians to make any moves soon. They're all duped by huge corporations making a fortune from plastic rubbish"[39].

[38] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments
[39] Ibid.

Furthermore, I notice that feelings of hopelessness, pessimism and despair as discussed earlier in the analysis remain prevalent amongst commenters who state an awareness of the role of corporate or governmental actors in the plastic crisis. This is expressed in the following comment: "Time we collected some of that plastic garbage from the oceans and force fed it to it's makers and the politicians who enable them. I'm glad I read this article but now I feel incredibly depressed about my own uselessness in all this".[40] Considering this comment through a governmentality lens, I observe that this commenter expresses a desire to hold institutional and political power accountable for their actions yet struggles to see how this is possible. His or her understanding of the possible avenues of change are restricted, yet he or she is already questioning the role of plastic makers and politicians in the plastic crisis. I contend that this is indicative of a complex relationship of power that shapes the *fields of possibility* of human action towards the plastic crisis. As previously discussed, the plastic sector and companies who profit from the use of plastic have informed individual habits and norms surrounding plastic and waste for decades. Resisting the practices of well established and economically powerful entities therefore appears difficult or impossible from an individual standpoint. I discuss this tension in more detail in the following section.

Finally, it is important to note that commenters who react to the images and/or content of the text by focusing on the role played by collective actors in the plastic crisis do offer solutions to mitigate the issue. Some of these solutions are more abstract, such as mentions of "drastic change", "root change", "branch change", "cultural change", "moving away from a culture of disposables", while others are more precise and targeted. A popular solution is to ban plastics, which some commenters say should be implemented on single-use plastic containers or applied to

[40] The Guardian, accessed November 28, 2021, https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds#comments

all products unless necessary for medical or infrastructural purposes. Secondly, commenters consider the implementation of different fines that could be applied to activities from oil companies, plastic producers if they do not collect the products that they are responsible for, or to litterers (from big actors to individuals). There is also discussion of a plastic tax which could also entail a tax on products that do not comply with biodegradable standards, the possibility to offer a tax relief on bulk products, making it a tax incentive for businesses to recycle. Others focus more precisely on changing plastic products. Amongst these solutions, there is discussion of further developing biodegradable options, prioritizing other materials like aluminium, products that are reusable, or standardizing plastic containers that are produced so that they can be reused and easily recycled. While some of these solutions do not challenge the amount of plastic produced, they nevertheless aim to either hold industry and government accountable for the plastic crisis or seek to change norms and practices that shape our relation to plastics.

Concluding Remarks

Earlier in the project, I defended the importance of paying close attention to images that represent and thematize the plastic crisis. I wanted to understand the way in which images shape our actions and sense of responsibility in relation to plastics. To further explore this, I focused on Chris Jordan's *Midway* series and *Albatross* film given their documented and experienced tendency to generate emotional reactions, their focus on waste and wildlife, which was consistent with popular framings of the crisis, and the large response from viewers and academics. This thesis fundamentally addressed the question: *how, if at all, do visual representations of plastic waste contribute to governing environmental action and shaping the responsible subject?* I now offer a partial answer. The answer is partial given limitations to the research, such as the focus of the analysis on a single case study, methodological constraints and the limits of interpretation when

analyzing single comments from an anonymous public online. These limitations, and possibilities for future research, are discussed in more length below.

Through a literature review, the exploration of the Foucauldian theory of governmentality and an analysis of a series of photographs and film, I demonstrated that focusing on plastic waste and visually contextualizing it as disorder has a predominant effect of individualizing responsibility and individual action to mitigate the effects of the plastic crisis. If we consider images as technologies of governance which direct, enable and/or restrict the scope of possibilities for actions by engaging subjects and enabling calculated reactions, we can see how the framing and content of the images directly affect the ways in which the public receives it. Considering the imagery from the case study, I discussed visibility, and, consequently, invisibility, as contributing to strong emotional reactions that can motivate or shock viewers into reflecting on their role to play in the death of these birds. The forensic lens, the hyper-focus on waste in an intimate setting, the repetition of the images and its content reinforces the message that albatross chicks suffocate because of people's consumption of plastics and poor waste disposal.

Approaching this case study through a framework of governmentality with a focus on neoliberalism meant that I carefully examined mechanisms that individualize people as responsible subjects. Amongst commenters who reacted to the images and accompanied text with comments focusing on individual responsibility, I noticed key trends in the ways in which they embrace the identity of a responsible subject and subsequently define actions that are deemed relevant for mitigating the plastic crisis. Firstly, I discussed the way in which commenters focus on other people's actions or a collective "we" or "humans" as responsible for the situation. In doing so, commenters highlighted others' actions of littering or consumption habits judged as careless. By distancing themselves from other people's actions, these commenters further defined themselves

as responsible, moral actors. Sometimes, commenters explicitly contrasted other people's actions to their own. This way of categorizing good practices (e.g., recycling) from bad practices (e.g., littering) around waste further defines what it means to be responsible and irresponsible subjects. In this case, individuals actively participate in defining and reinforcing this divide by observing, monitoring, and commenting on other individual's actions.

Secondly, commenters also advocated for individual solutions such as personal recycling, picking up litter, beach cleanups, confronting neighbours about their littering, leaving plastic packaging at the grocery store. While the latter practices and actions play a role in mitigating the effects of the plastic crisis, I discussed key criticisms of individual solutions that focus on plastic pollution and litter as an issue of spacial displacement, as *out of place*, that must be put in its *right place* to be acceptable. Solutions that focus solely on individual actions *to order* plastics do not stop the genesis of waste. In another sense, it does not challenge the production of plastics. As is currently the case with the plastic crisis, we are increasingly seeing that individual acts that focus on ordering plastic waste are categorically non-equivalent to the massive, global quantity of plastics produced and consumed.

This said, the images and text also had the observed effect of prompting dismissal and/or expressions of despair amongst commenters. I noted concerns for the scale of the issue, expressions of feeling overwhelmed and negative assessments of future possibilities as common responses. It is disconcerting to notice the trend to view the plastic crisis as a catastrophe without solutions, or an issue too complicated to address. As discussed in the analysis, Boetzkes (2019) spoke of the concern in this case of a "depressive paralysis in the place of responsibility" (p. 237).

Reflecting on key trends in the assignment of responsibility to other individuals, preaching of various individual actions, and observed expressions of despair, I speculate that there is unity

in these reactions which constitutes a pattern of response. I suggest that if responsibility for the plastic crisis remains at the individual level (through blaming other individuals and preaching for individual actions), and no concrete advancements are made in mitigating the effects of the plastic crisis, despair is inevitable as future solutions become difficult to identify if not utterly futile. If we consider the way in which power operates to restrict the scope of possibilities, understanding the plastic crisis as a result of individual actions and as one without effective solutions runs the risk of allowing the current system—the amount and types of plastics produced, inefficient waste management and lack of global regulations of plastics—to maintain its hegemony. Broader systemic critique that addresses the plastic crisis as one rooted in production would be necessary to break from this suggested pattern of response which unites reactions of blame, preaching, and despair. The underlying concerns for the individualizing of action at the expense of more targeted actions that challenge industry is consistent with Liboiron (2012, 2021), Belontz et al. (2019) and Chertkovskaya et al. (2020)'s assessment of the issue. Yet, further inquiry and empirical research would be needed to verify the speculative hypothesis of a pattern uniting blame, preaching and despair.

Nevertheless, I also demonstrated that some commenters *do* provide solutions at a more systemic level and question current approaches to mitigating the effects of the plastic crisis. The tendency to individualize issues surrounding plastic waste is challenged by viewers who attempt to redirect the issue by contextualizing the situation within the broader scope of a capitalist order that drives production and permeates our activities of consumption and day-to-day practices. It is my contention that this resistance to the framing of the issue as an individual responsibility does ultimately lead to shaping the meaning of the responsible subject. As discussed earlier, while power and knowledge work at the level of the subject—that is, circulates through subjects—it is

also at the level of the subject that it can be resisted. Subjects can question "models" of the self. By becoming aware of calls for self-responsibilization, individuals shape the meaning of the responsible subject and participate in new notions of collective organizing. In this sense, by resisting the tendency to focus on individual responsibility, individuals can still be responsible subjects. Perhaps it means that the "responsible subject" in the case of the plastic crisis is becoming a subject that speaks out against industry activities. A subject that critically assesses his or her role. A subject that questions governmental policies. Does this subject challenge our understanding of plastic waste? Entice others to collectively organize? To challenge industry? That remains to be seen. This does, however, highlight the productive nature of power.

In all, the analysis revealed a wide range of responses from commenters, even if they were predominantly focused on the notion of ordering waste and frequently focused on individual responsibility. Yet, this is consistent with the content of the images which plays an active role in shaping the way in which we view the plastic crisis. The analysis nevertheless demonstrated that while the status quo is being actively maintained through a focus on waste management and individual solutions to a global problem, responsibility is also taking on new meanings as individuals challenge these conceptions. Perhaps being a responsible subject in the context of the plastic crisis will eventually mean challenging our very culture of disposability? This proves to be a productive line of inquiry for further research.

Limitations and Future Research

When designing a research project, the researcher must draw boundaries to determine what to include and exclude in the project. To address my initial line of questioning, I chose to limit my focus on a single case analysis to allow for a more in-depth analysis of the chosen imagery and commentary. As such, focusing on other imagery of plastic waste and reactions from the public

could contribute additional understandings into the way in which this form of imagery governs environmental action and shapes the responsible subject. It could also allow us to observe more nuances or similarities, ensuring that results could be more widely applicable.

Furthermore, approaching my research question through a governmentality framework has allowed me to think about power relations with a particular attention to neoliberalism and subjectivity in everyday life interactions. It offered a lens through which I could observe the ways in which individuals become vehicles of power, choosing to become new subjects through different techniques of improvement. It also oriented my observations of the productive dimensions of power, which enable subjects to participate actively in new configurations of particular "models" of the self. This said, this framework also presents some weaknesses. As previously mentioned, Foucault did not provide a methodology through which governmentality should be studied, which leads to some ambiguity in its application. Additionally, scholars such as Rutherford (2007) have critiqued governmentality for its inattention to difference. As explained by Rutherford (2007), there are "erasures and foreclosures in the way people can conceive of themselves, and the performance of different subjectivities are read as (un)intelligible differently" (p. 300). As such, I recognize that my choice of methodology, which relied on anonymous comments (other than a username) and theoretical framework did not take into consideration nuances that can arise when considering identities and their formation via interconnecting categories of gender, race, age, class, location. Paying close attention to these different aspects of identity would surely generate important nuances that would further complexify an analysis of power through imagery.

Future research could interact more directly with participants to incorporate more nuance in terms of the reception and experiences of the images by the viewers. This could be done through

different methods of data collection, such as photo-elicitation taking the form of interviews with individuals or groups, using the visual as prompts. In this method, photographs are shown to participants with the goal of exploring their values, attitudes, and beliefs (Prosser & Schwartz, 1998). Text could also be used in conjunction with images to test the nuances in their reception when contextualized differently. Furthermore, by engaging first-hand with participants, more demographic information could be gathered to allow for a more in-depth exploration of similarities and differences in the ways in which participants react to images and make sense of these images in relation to themselves and their actions.

Finally, the notion of time could be studied when considering images and their power in directing action and shaping subjects. By this, I mean that instead of considering reactions from participants in one instant, their understanding of the images, attitudes and beliefs that arise in viewing chosen images and accompanied text could be revisited later. This could give insights into the ways in which the form and content of images and reactions from viewers are shaped by their cultural moment. It could also facilitate more precise measurement of the impacts of visual content on action, by paying close attention to the lingering effects of viewing images of the plastic crisis through a specific frame.

Why Does Critiquing Plastic and its Imagery Matter?

Imagery has the potential for wide dissemination especially in digital form, through the internet and various social networks. Throughout this project, I have demonstrated with a review of literature and a case study that visibility (what is revealed and what is concealed), forms of knowledge produced through imagery, and identities presupposed by the form of imagery shape the way in which the plastic crisis is understood, and in turn, how action is directed.

The visual culture of plastics has an important role in shaping conduct, on an individual level, but also in influencing policy and raising awareness on issues of corporate (mis) conduct or overproduction. Minister Catherine McKenna's remark on the widespread diffusion of disturbing images of wildlife entwined with plastic garbage and the urgency to act to prevent this from happening is an example of the sense of urgency that is generated by imagery. Pathak (2021) even notes that Blue Planet II "is credited with having inspired Queen Elizabeth II's backing of efforts to reduce single-use plastics, the initiation of a deposit scheme on plastic bottles in the UK, and a ban on single-use" (p. 133). As explored in this project, images expose the viewers to sensations, feelings that challenge everyday experience. They create shared ways of making sense, of feeling towards an event, or in this case, representing the negative consequences of plastic pollution.

What we must, however, question is whether the actions and forms of subjectivity informed and shaped by the visual culture of plastics inspire or hinders action. I join Chertkovskaya et al. (2020) in saying that given the scale of the plastic crisis, imagery that seeks to render visible this problem must go "beyond problematizing consumption, to criticize the industry seeking to produce plastics in ever-greater quantities, the governments that are refraining from challenging this, and to call for systemic change.'" (Chertkovskaya et al., 2020, p. 10). In this sense, imagery that presents the plastic crisis in its fullest sense, should be encouraged to convey the urgency of the situation and for actions to be well motivated, not misdirected.

Let's remember an earlier quote from art historian Hans Belting: "*What cultures do with pictures and how they capture the world in them leads straight to the center of their way of thinking*." (Väliaho, 2014, p. 1). If imagery has the power to change individual and collective conduct, and influence policy, it is even more important to recognize its power and to observe critically and question the visual content that thematizes the plastic crisis. The way we *see* the

plastic crisis can reveal potential solutions or shortcomings in the ways in which we, individually and collectively, take action.

References

Akenji, L. (2014). Consumer scapegoatism and limits to green consumerism. *Journal of Cleaner Production*, *63*, 13–23. https://doi.org/10.1016/j.jclepro.2013.05.022

Allen, A. (2013). Power and the Subject. In C. Falzon, T. O'Leary, & J. Sawicki (Eds.), *A Companion to Foucault* (pp. 337-352). Oxford: WileyBlackwell.

Artworks for Change (n.d.). Chris Jordan. https://www.artworksforchange.org/portfolio/chris-jordan/

Bailey, L. E. (2020). Waste Is Women's Domain: A Review of a 19th Century Housekeeping Manual. *Taboo: The Journal of Culture and Education*, *19*(3), 165–179.

Barthes, R. (1957). *Mythologies*. Éditions du Seuil.

Belontz, S. L., Corcoran, P. L., Davis, H., Hill, K. A., Jazvac, K., Robertson, K., & Wood, K. (2019). Embracing an interdisciplinary approach to plastics pollution awareness and action. *Ambio*, *48*(8), 855–866. https://doi.org/10.1007/s13280-018-1126-8

Boetzkes, A. (2019). *Plastic Capitalism: Contemporary Art and the Drive to Waste.* Massachusetts: The MIT Press.

Brooks, A. L., Wang, S. & Jambeck, J. R. (2018). The Chinese important ban and its impact on global plastic waste trade. *Science Advances, 4*(6), 1-7.

Burkitt, I. (2008). *Social selves: Theories of self and society* (2nd ed). SAGE.

Burri, R. V. (2012). Visual Rationalities: Towards a Sociology of Images. *Current Sociology 60*(1), 45-60.

Calisto Friant, M., Vermeulen, W. J. V., & Salomone, R. (2020). A typology of circular economy discourses: Navigating the diverse visions of a contested paradigm. *Resources,*

Conservation and Recycling, *161*, 104917. https://doi.org/10.1016/j.resconrec.2020.104917

Chertkovskaya, E., Holmberg, K., Petersén, M., Stripple, J., & Ullström, S. (2020). Making visible, rendering obscure: Reading the plastic crisis through contemporary artistic visual representations. *Global Sustainability*, *3*, 1–12. https://doi.org/10.1017/sus.2020.10

Chris Jordan. (2011, February 11). *Midway: Message from the Gyre*. http://www.chrisjordan.com/gallery/midway/#about

Colten, C. E. (2010). Waste and Pollution: Changing Views and Environmental Consequences. In M. Reuss & S. H. Cutcliffe (Eds.), *The Illusory Boundary* (pp. 171–208). University of Virginia Press. https://www.jstor.org/stable/j.ctt6wrnp4.12

Darier, E. (1999). Foucault and the Environment: An Introduction. In E. Darier (Ed.) *Discourses of the Environment* (pp. 1-33). Blackwell Publishers.

Davis, H. (2015). Life & Death in the Anthropocene: A Short History of Plastic. In H. Davis & E. Turpin (Eds.), *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies* (pp. 347-358). Open Humanities Press.

Dauvergne, P. (2018). Why is the global governance of plastic failing the oceans? *Global Environmental Change*, *51*, 22–31. https://doi.org/10.1016/j.gloenvcha.2018.05.002

Deleted User. (2012, August 04). *Why we should be recycling every tiny piece of plastic*. [Online forum post]. Reddit. https://www.reddit.com/r/WTF/comments/xp5lb/why_we_should_be_recycling_every_tiny_piece_of/?sort=old

Douglas, M. (1966). *Purity and Danger: An Analysis of Conceptions of Pollution and Taboo*. Routledge.

Dunaway, F. (2015). *Seeing Green: The Use and Abuse of American Environmental Images*. University of Chicago Press.

Ecotone Magazine. (n.d.). *About*. https://ecotonemagazine.org/about/

Emmelheinz, I. (2015). Images do Not Dhow: The Desire to See in the Anthropocene. In: H. Davis & E. Turpin (Eds.), *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies* (pp. 131-154). Open Humanities Press. https://doi.org/10.26530/OAPEN_560010

Encyclopedia. (2018). Waste. *The Oxford Pocket Dictionary of Current English*. Retrieved January 24, 2022, from https://www.encyclopedia.com/science-and-technology/biology-and-genetics/environmental-studies/waste

Environment and Climate Change Canada. (2019). *Economic study of the Canadian plastic industry, markets and waste: Summary report.* http://epe.lac-bac.gc.ca/100/201/301/weekly_acquisitions_list-ef/2019/19-16/publications.gc.ca/collections/collection_2019/eccc/En4-366-1-2019-eng.pdf

Erlenbusch, V. (2013). The Place of Sovereignty: Mapping Power with Agamben, Butler, and Foucault. *Critical Horizons*, *14*(1), 44–69. https://doi.org/10.1179/15685160X13A.0000000003

Figgener, C. (2018, November 6). *What I learnt pulling a straw out of a turtle's nose*. Nature. https://www.nature.com/articles/d41586-018-07287-z

Finkelstein, M.E., Gwiazda, R.H., & Smith, D.R. (2003). Lead poisoning of seabirds: environmental risks from leaded paint at a decommissioned military base. *Environmental Science & Technology, 37*(15), 3256–3260.

Foucault, M. (1991). Governmentality. In G. Burchell, C. Gordon & P. Miller (Eds.), *The Foucault effect: Studies in governmentality: with two lectures by and an interview with Michel Foucault* (pp. 87-104). University of Chicago Press.

Foucault, M. (1993). Subjectivity and Truth. In M. Blasius (Ed.) *About the Beginning of the Hermeneutics of the Self: Two Lectures at Dartmouth* (pp. 200-210). *Political Theory*, *21*(2), 198-227.

Foucault, M. (1997). The Ethics of the Concern for Self as a Practice of Freedom. In P. Rabinow (ed), *Michel Foucault. Ethics: Subjectivity and Truth, Volume I,* pp. 281-301. New York: The New York Press.

Foucault, M. (2000). *Power: Essential Works of Foucault, 1954– 1984*. J.D. Faubion (ed). NewYork: The New Press.

Foucault, M. (2003). Society Must Be Defended. In M. Bertani & A. Fontana (eds.), *"Society Must Be Defended": Lectures at the Collège de France*. London: Penguin.

Foucault, M. (2008). *The birth of biopolitics: Lectures at the Collège de France, 1978-79* (M. Senellart, Ed.). Palgrave Macmillan.

Friends of Midway Atoll. (n.d.). *Honoring the Past*. Friends of Midway. https://friendsofmidway.org/historic-midway/

Gerhardt, C. (2018). Pacific and Plastic: Midway Atoll, Plastiglomerate, and Love of Place. *Mosaic, 51*(3), 123-139.

Geyer, R., Jambeck, J. R., & Law, K. L. (2017). Production, use, and fate of all plastics ever made. *Science Advances*, *3*(7), e1700782. https://doi.org/10.1126/sciadv.1700782

Government of Canada. (n.d.). *Toward zero plastic waste*. https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/zero-plastic-waste.html

Gutting, G. & Oksala, J. (2021). Michel Foucault. In E. N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Summer 2021). Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/entries/foucault/#HistPris

Hawkins, G. (2017). Ethical Blindness: Plastics, Disposability and the Art of Not Caring. In V. Kinnunen & A. Valtonen (eds), *Living Ethics in a More-Than-Human World*, 15–28. Rovaniemi, Finland: University of Lapland Press.

Hawkins, G. (2018). Plastic and Presentism: The Time of Disposability. *Journal of Contemporary Archaeology*, *5*(1), 91–102. https://doi.org/10.1558/jca.33291

Hawkins, G. (2019, May 21). *Disposability*. Discard Studies. Retrieved on April 21, 2021, https://discardstudies.com/2019/05/21/disposability/

Hargreaves, T. (2019). Pro-environmental behaviour change and governmentality: Counter-conduct and the making up of environmental individuals. In C. Isenhour, M. Martiskainen, & L. Middlemiss (Eds.), *Power and Politics in Sustainable Consumption Research and Practice* (1st ed.) (pp. 87-106). Routledge. https://doi.org/10.4324/9781315165509

Hellberg, S. (2018). *The Biopolitics of Water: Governance, Scarcity and Populations*. Routledge.

Hodges, S. (2018). Plastic History, Caste and the Government of Things in Modern India. In S. Legg & D. Heath (Eds.), *South Asian Governmentalities: Michel Foucault and the Question of Postcolonial Orderings* (pp. 178–199). Cambridge University Press.

Humes, E. (2019, June 26). Zeroing Out Zero Waste: A conversation with David Allaway, recycling heretic. Sierra Club. https://www.sierraclub.org/sierra/2019-4-julyaugust/feature/zeroing-out-zero-waste

Jaeger, A. B. (2018). Forging Hegemony: How Recycling Became a Popular but Inadequate Response to Accumulating Waste. *Social Problems*, *65*(3), 395–415. https://doi.org/10.1093/socpro/spx001

Jordan, C. (2010). Midway: *Message from the Gyre*. *Ecotone*, *5*(2), 110–118. https://doi.org/10.1353/ect.2010.0040

Langdon, M. (2014). *The Work of Art in a Digital Age: Art, Technology and Globalisation*. Springer New York. https://doi.org/10.1007/978-1-4939-1270-4

Lavers, J. L., & Bond, A. L. (2016). Ingested plastic as a route for trace metals in Laysan Albatross (Phoebastria immutabilis) and Bonin Petrel (Pterodroma hypoleuca) from Midway Atoll. *Marine Pollution Bulletin*, *110*(1), 493–500. https://doi.org/10.1016/j.marpolbul.2016.06.001

Lebreton, L., Slat, B., Ferrari, F., Sainte-Rose, B., Aitken, J., Marthouse, R., Hajbane, S., Cunsolo, S., Schwarz, A., Levivier, A., Noble, K., Debeljak, P., Maral, H., Schoeneich-Argent, R., Brambini, R., & Reisser, J. (2018). Evidence that the Great Pacific Garbage Patch is rapidly accumulating plastic. *Scientific Reports*, *8*(1), 4666. https://doi.org/10.1038/s41598-018-22939-w

Lemke, T. (2001). "The birth of bio-politics": Michel Foucault's lecture at the Collège de France on neo-liberal governmentality. *Economy and Society*, *30*(2), 190–207. https://doi.org/10.1080/03085140120042271

Lemke, T. (2016). *Foucault, governmentality, and critique*. New York: Routledge.

Liboiron, M. (2009). Recycling as a crisis of meaning. eTopia. https://etopia.journals.yorku.ca/index.php/etopia/article/viewFile/36718/33366

Liboiron, M. (2012). *Redefining Pollution: Plastics in the Wild* (Publication No. 3553962). [Doctoral dissertation, New York University]. ProQuest Dissertations Publishing.

Liboiron, M. (2016). Redefining Pollution and Action: The matter of plastics. *Journal of Material Culture*, *21*(1), 87–110. https://doi.org/10.1177/1359183515622966

Liboiron, M. (2018, December 21). Plastic Demands Land. That's a Function of Colonialism. Teen Vogue. https://www.teenvogue.com/story/how-plastic-is-a-function-of-colonialism

Liboiron, M. (September 9, 2019). *Waste is not "matter out of place".* Discard Studies. Retrieved on April 30th, 2021. https://discardstudies.com/2019/09/09/waste-is-not-matter-out-of-place/

Liboiron, M. (2021). *Pollution is Colonialism*. Duke University Press.

Lucas, G. (2002). Disposability and Dispossession in the Twentieth Century. *Journal of Material Culture*, *7*(1), 5–22. https://doi.org/10.1177/1359183502007001303

Luke, T. W. (1995). On Environmentality: Geo-Power and Eco-Knowledge in the Discourses of Contemporary Environmentalism. *Cultural Critique*, *31*, 57. https://doi.org/10.2307/1354445

MacBride, S. (2012). *Recycling reconsidered: The present failure and future promise of environmental action in the United States*. MIT Press.

Machin, D. (2014). *Visual communication*. De Gruyter Mouton.

Mansfield, N. (2000). *Subjectivity: Theories of the self from Freud to Haraway*. Allen & Unwin. https://www.taylorfrancis.com/books/9781003117582

McCool, B. (2020, October 2*). The History of Plastic: The Invention of a Throwaway Living*. The Dieline. https://thedieline.com/blog/2020/3/10/the-history-of-plastic-the-invention-of-throwaway-living?

Meikle, J. L. (1995). *American Plastic: A Cultural History.* New Jersey: Rutgers University Press.

Midway Atoll. (2021, July 22). In *Wikipedia*. https://en.wikipedia.org/wiki/Midway_Atoll

Murphy, E. L. (2018). *Less is More Work: A Governmentality Analysis of Authenticity Within Minimalism Discourse*. [Doctoral dissertation, Carleton University]. Carleton University.

Neuman, L. W., & Robson, K. (2018). *Basics of Social Research: Qualitative and Quantitative Approaches, Fourth Canadian Edition*. Toronto: Pearson Canada.

O'Brien, M. (1999). Rubbish values: Reflections on the political economy of waste. *Science as Culture*, *8*(3), 269–295. https://doi.org/10.1080/09505439909526548

O'Gorman, L. (2017). Sustainability, the Arts and Big Numbers: The Challenge of Researching Children's Responses to Chris Jordan's Images. *International Journal of Early Childhood*, *49*(3), 321–332. https://doi.org/10.1007/s13158-017-0199-z

Oksala, J. (2005). *Foucault on freedom*. Cambridge University Press.

Oksala, J. (2013). From Biopower to Governmentality. In C. Falzon, T. O'Leary, & J. Sawicki (Eds.), *A Companion to Foucault* (pp. 320-336). Oxford: WileyBlackwell.

Oxford English Dictionary. (2021). Litter, n. *Oxford University Press*. Retrieved on February 3, 2022, from https://www-oed-com.proxy.bib.uottawa.ca/view/Entry/109237?rskey=9EkQB0&result=1&isAdvanced=false.

Oxford English Dictionary. (2021). Subject, n. *Oxford University Press*. Retrieved August 9, 2021, from https://www-oed-com.proxy.bib.uottawa.ca/view/Entry/192686?rskey=54I1Oi&result=1&isAdvanced=false#eid

Pathak, G. (2020). 'Plastic Pollution' and Plastics as Pollution in Mumbai, India. *Ethnos*, 1–20. https://doi.org/10.1080/00141844.2020.1839116

Petrocultures Research Group. (2016). *After Oil*. Edmonton, AB: Petrocultures Research Group.

PrairiePunk. (2018a, January 18). *A baby albatross decaying around the plastic it ate. (Midway Island)*. [Online forum post]. Reddit. https://www.reddit.com/r/pics/comments/7rbx3w/a_baby_albatross_decaying_around_the_plastic_it/

PrairiePunk. (2018b, January 18). *Albatross chick decaying around the plastic that killed it*. [Online forum post]. Reddit. https://www.reddit.com/r/morbidlybeautiful/comments/7rbtti/albatross_chick_decaying_around_the_plastic_that/?sort=old

Prime Minister of Canada. (2019, June 10). *Canada to ban harmful single-use plastics and hold companies responsible for plastic waste*. https://pm.gc.ca/en/news/news-releases/2019/06/10/canada-ban-harmful-single-use-plastics-and-hold-companies-responsible

Prosser, J., & Schwartz, D. (1998). Photographs within the sociological research process. In J. Prosser (Ed.), *Image based research: A sourcebook for qualitative researchers* (pp.115-129). London: Falmer Press.

Rae, G. (2020). *Poststructuralist Agency*. Edinburgh: Edinburgh University Press.

Ray, G. (2020). Terror and the Sublime in the So-Called Anthropocene. *Liminalities*, *16*(2), 1–20.

Rogers, H. (2007). Garbage Capitalism's Green Commerce. *The Socialist Register, 43*, 231-253.

Rose, G. (2016). *Visual methodologies: An introduction to researching with visual materials* (4th edition). SAGE Publications Ltd.

Rose, N., & Lentzos, F. (2017). Making Us Resilient: Responsible Citizens for Uncertain Times. In S. Trnka & C. Trundle (Eds.), *Competing responsibilities: The politics and ethics of contemporary life* (pp. 27-48). Duke University Press.

Rutherford, P. (1999). 'The Entry of Like into History'. In E. Darier (Ed.) *Discourses of the Environment* (pp. 37-62). Blackwell Publishers.

Rutherford, S. (2007). Green governmentality: Insights and opportunities in the study of nature's rule. *Progress in Human Geography*, *31*(3), 291–307. https://doi.org/10.1177/0309132507077080

Rutherford, S. (2018). Green Governmentality. In N. Castree, M. Hulme & J. D. Proctor (Eds) *Companion to Environmental Studies* (pp. 205-208). Routledge. Synthetic Collective. (n.d.). *Synthetic Collective*. Retrieved on October 17th, 2021, https://syntheticcollective.org/

Schwyzer, H. (1997). Subjectivity in Descartes and Kant. *The Philosophical Quarterly, 47*(188), 342-357. Retrieved August 10, 2021, from http://www.jstor.org/stable/2956419

Sea Turtle Biologist. (2015, August 10). *Sea Turtle with Straw up its Nostril – "NO" TO PLASTIC STRAWS* [video]. Youtube. https://www.youtube.com/watch?v=4wH878t78bw&ab_channel=SeaTurtleBiologist

Simons, J. (2013). Power, Resistance, and Freedom. In C. Falzon, T. O'Leary, & J. Sawicki (Eds.), *A Companion to Foucault* (pp. 301-319). Oxford: WileyBlackwell.

Smith, T. M. (1998). *The Myth of Green Marketing: Tending our Goats at the Edge of Apocalypse*. Toronto: University of Toronto Press.

Soneryd, L., & Uggla, Y. (2015). Green governmentality and responsibilization: New forms of governance and responses to 'consumer responsibility.' *Environmental Politics*, *24*(6), 913–931. https://doi.org/10.1080/09644016.2015.1055885

Spurlock, C. (2012). AMERICA'S BEST IDEA: Environmental Public Memory and the Rhetoric of Conservation Civics. In T. Patin (ed.), *Observation Points: The Visual Poetics of National Parks* (pp. 43-62). University of Minnesota press.

Synthetic Collective. (n.d.). *Synthetic Collective*. Retrieved on October 17th, 2021, https://syntheticcollective.org/

Todd, A. (2020, February 4). *Bruno Latour: 'Trump and Thunberg' inhabit different planets – his has no limits, hers trembles'*. The Guardian. https://www.theguardian.com/stage/2020/feb/04/bruno-latour-moving-earths-theatre-science-climate-crisis

Traue, B., Blanc, M., & Cambre, C. (2019). Visibilities and Visual Discourses: Rethinking the Social with the Image. *Qualitative Inquiry*, *25*(4), 327–337. https://doi.org/10.1177/1077800418792946

Trnka, S., & Trundle, C. (2017). Competing Responsibilities: Reckoning Personal Responsibility, Care for the Other, and the Social Contract in Contemporary Life. In S. Trnka & C. Trundle (Eds.), *Competing responsibilities: The politics and ethics of contemporary life* (pp. 1-24). Duke University Press.

Turns, A. (2018, March 12). *Saving the albatross: 'The war is against plastic and they are casualties on the frontline'*. The Guardian. https://www.theguardian.com/environment/2018/mar/12/albatross-film-dead-chicks-plastic-saving-birds

U.S. Fish & Wildlife Service (n.d.). *Midway Atoll National Wildlife Refuge Battle of Midway National Memorial*. Retrieved July 29, 2021, from https://www.fws.gov/refuge/Midway_Atoll/wildlife_and_habitat/

UNplastic Nation [@unplasticnation]. (2021, January 24). *THIS is where plastic ends up when it goes into the ocean* [Photograph]. Instagram. https://www.instagram.com/p/CKbcMQ4HRWs/

Valenzuela, F., & Böhm, S. (2017). Against wasted politics: A critique of the circular economy. Ephemera: Theory & Politics in Organization, 17(1), 23–60.

Väliaho, P. (2014). *Biopolitical screens: Image, power, and the neoliberal brain*. The MIT Press.

Vincent, B. B. (2013). Plastics, Materials and Dreams of Dematerialization. In J. Gabrys, G. Hawkins, & M. Michael (Eds.), *Accumulation: The Material Politics of Plastic* (pp. 17-29). Routledge.

von Scheve, C., Zink, V., & Ismer, S. (2016). The Blame Game: Economic Crisis Responsibility, Discourse and Affective Framings. *Sociology*, *50*(4), 635–651.

Appendix A

List of codes

<u>Responsibility</u>
Blame
- Collective actors
- Humans and We
- Ideologies, belief systems, political and economic systems
- Other citizens

Taking responsibility
- Individual (IR)
  - Accepting IR
  - Accepting but questioning IR
  - Rejects aspects of IR but participates in IR
  - Rejects aspects of IR but unclear
  - Indifference to IR
  - Fully rejects IR
- Collective actors

<u>Emotive reactions</u>
Anger
Catastrophe
Depression
Despair
Guilt
Hope
Humour
Love
Sadness
Shame

<u>Solutions</u>
Ban
Evolution
Explicitly no solution
Individual
Politicians, government
Product
Source
System-wide
System change
Tax, fine
Technological or technical

<u>Truth</u>
About albatross
About the production of images
Denial
Offering proof

<u>Education</u>
Asking for information
Educating

<u>Waste management and Recycling</u>
Anti-recycling statements
Pro-recycling statements
Questioning recycling
Waste Infrastructure

<u>Others</u>
Dismissal
Engagement with images
Not included