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Climate, Creatures and COVID-19: Environment and Animals in Twenty-First Century Media Discourse

Edited by

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This special issue of *Networking Knowledge* was first conceived of in 2020, at the start of the first UK lockdown of the COVID-19 pandemic. It was a time during which the freedoms and spaces for movement of humans all over the world were radically altered in endless ways - daily routines and professional lives disrupted, and family and social relationships inflected by the sudden necessity of digital communication. COVID-19 had, and continues to have, a profound effect on collective and individual health and physical and mental wellbeing, relationships, and politics and economies, all over the world. Inequality became further entrenched during the pandemic (Jenkins 2021; Coy 2021). It cost lives and livelihoods (World Health Organisation 2021; Sundaram 2020; Russon and Smith 2021), and the precarious circumstances in which many people already lived were exacerbated. COVID-19 has been characterised by loss of many kinds.

Loss on such a scale would, of course, make any reluctance to acknowledge the opportunities for pause, thought and discussion gained during the COVID-19 pandemic entirely understandable. Even more understandable, perhaps, is the uneasiness some may feel about considering the myriad human prejudices, complacencies and behaviours that contribute to creating crises like COVID-19 (Vidal 2020). The realisation that human (in)action may have contributed to or even caused the COVID-19 crisis is indeed deeply unsettling. It is, however, imperative to acknowledge this agency and reject defeatist inertia, because these are, in large part, the same (in)actions that are still contributing to another urgent crisis, marked by loss of habitat, loss of species, loss of homes and loss of security - climate change.

Reflecting on such things can be challenging, even when that reflection is limited to the hypothetical. There remains some defensiveness, scepticism and denialism about climate change and how it is being communicated in some parts of the media (see for example Booker 2018; Rose 2019). Could it be that, in some cases, a counter-intellectual resistance to the idea that such disasters have been, or can be, anthropogenic might be galvanised by the trauma of watching these crises unfolding even as we speak? Does witnessing the ever-growing of the storm make some of us even more reluctant to accept our role in its creation? Or is this scepticism simply a manifestation of complacency and disbelief - an undercurrent of insistence that real life is no big-budget disaster movie, and that things could never possibly be, or get, 'that bad'? Whatever the truth, the COVID-19 pandemic has had a manifest role in bringing conversations about subjects like zoonotic disease and anthropogenic climate change into the front and centre of public consciousness (see for example UN Environment Programme 2021; Constable and Kushner 2021). They may be gruelling, but these conversations *are* taking place. It remains important, however, to continue to consider who is having these conversations and

where, what their vested interests and principles are, who is listening to whom, and who continues to lack a seat at the policy-making table. In other words, *whose conversations count*?

I am writing just a few weeks before the COP26 climate summit is due to take place in my home city of Glasgow. It is a moment in which climate change is particularly topical, when ever more column inches, blog and social media posts and television hours are being given over to the subject, and to speculating about and predicting what might emerge from the summit itself. The extent to which this investment in the subject will continue after COP26, of course, remains to be seen.

The event has not been without controversy, with some groups arguing that the global inequality of access to COVID-19 vaccination - what has become known as 'vaccine apartheid' - and soaring accommodation prices in Glasgow in the run-up to the event are effectively locking out less wealthy contributors to the conversation (Climate Action Network International 2020). Many official participants will arrive on environmentally damaging long-haul flights, the expense of which represent a significant investment for many non-profit organisations, and would be entirely unmanageable for the vast majority of the world's population. 'Uniting the world to tackle climate change', claims the landing page of the COP26 website (UN Climate Change Conference UK 2021) - but there have been significant concerns about *who* counts as the world in this case, and exactly *who* is being united. Grassroots events, marches and protests hosted by a plethora of organisations will, of course, take place around the summit itself, and the exponential increase in the capacity (and necessity) for social media and digital communication, debate and protest resulting from COVID-19 lockdowns will doubtless lend itself to greater online action during the summit - for those with digital access, at least. But it is important to recognise that these, for all of their very real and meaningful hard work, awareness-raising and changemaking, are occurring on the fringes of a space - physical, ideological and conceptual - where international goal-setting and policy decisions will continue to be made by the few, under the watchful eye of existing power dynamics and industrial lobbying which have yet to be dismantled. It remains to be seen whether, after so many previous COP events, the political gap between 'saying' and 'doing' will undergo a meaningful reduction.

As several of the articles in this special issue suggest, a commitment to interrogating homogenous references to 'humanity' that elide the inequalities at the intersections of sex, gender, race, ethnicity and disability that make human experience heterogenous is essential. There is a marked contrast in consumption levels between the so-called 'developed' and 'developing' worlds (Althor, Watson and Fuller 2016), and this has been thrown into ever-starker relief by the COVID-19 pandemic, in areas including access to vaccines and economic recovery (Ghosh 2021). As causes of climate change are varied and contextual, workable solutions must be too. I suggest that it is also imperative that any recovery consistently interrogates anthropocentric, androcentric and capitalistic approaches to combatting both climate change and zoonotic pandemic.

The extent to which COP26 will consider the needs of non-human animal species in any meaningfully non-anthropocentric way, as sentient 'stakeholders' in the future of the planet rather than resources for human consumption, remains unclear. The Scottish animal welfare

charity OneKind recently launched its #COPOUT26 campaign to protest the 'glaring absence' of discussions about non-human animal species, and particularly the impact of animal agriculture on the climate, from the COP26 agenda (OneKind 2021). There have also been calls for the summit to serve an entirely plant-based menu in recognition of the significant impact that the meat and dairy industries have on the climate (Montague 2021; Baker 2021). So far, these appear to have gone unheeded. For now, then, it seems that non-human animal species - for whom climate change and the prevention of zoonotic disease are as critical as they are for humans - will remain *on* the table, rather than *at* it. While human decision makers continue to insist on their radical separation from the non-human world, and persist in refusing to centre non-human animals in any discussions about environmental justice on the basis of human exceptionalism, practical applications of theoretical interventions such as the entangled empathy imagined by Gruen (2015), the rendering-visible of the non-human animal 'absent referent' of Adams (2015) or the vital conception of non-human life (*zoe*) as theorised by Braidotti (2013) remain impossible.

A growing body of transdisciplinary academic ecological research exists, but much of it requires paid access, is restricted to a specialist audience, and/or is presented in language which limits accessibility. As a result, the non-specialist majority is particularly dependent on all forms of free-to-access media for information, education and entertainment about environment, climate and nature. The form, and free availability, of media has the power to prevent or encourage equality of access and grassroots organising to shape attitudes and policy. Nowhere is this more true than in discussions of climate change.

The role of media has been hotly debated and theorised in the context of COVID-19 - a search of Twitter hashtags such as #scamdemic and #plandemic reveals a considerable volume of scepticism of, and hostility to, 'mainstream' media reporting of the pandemic, lockdowns and vaccination drives. While there appears to be little evidence to suggest that this hostility is a majority view, its very existence still serves as a reminder that media framings of world events don't simply reflect conversations already happening in the wider population. They also *shape* those conversations, all the while exerting influence on those that might take place in future. There is a constant and pressing need to consider how the presence and absence of media voices during the current pandemic, and increased interest in environmental themes over the last few years, have informed public action, attitudes and even policy.

This special issue of *Networking Knowledge* features much-needed contributions to discussions about environment and ecology, particularly in the wake of the COVID-19 pandemic, the increasing urgency of the climate crisis, changed ways of working, communicating, and thinking and being in the world. These interventions are provided by postgraduate and early-career researchers from a range of disciplines. They are free-to-access, and it is our hope that they are also accessible to both academic and general audiences.

The contributions cover a range of subjects, from a range of theoretical standpoints, relevant to reflecting on the pre-COVID-19 world and what many of us might still perceive as a 'normal' to be returned to or reconfigured, the events of the pandemic and lockdown itself, and/or constructions of the future, and of the kind of recovery that is desirable and achievable. Maki Eguchi analyses a Japanese TV drama and its portrayal of pre-pandemic dairy farming,

while Catherine Price considers genetically modified animals and the rhetorical construction of monstrosity. Lynda M Korimboccus asks us to consider animals in children's television, and the hypocrisy and cognitive dissonance of ham sandwiches in *Peppa Pig* lunchboxes. Xin Zhao questions how the notion of 'public' is constructed in the reporting of environmental justice policy in China, and Callum Bateson describes how the stories of Máiréad Ní Mhionacháin can help us to think about the importance of environmental belonging and the impact of colonialism in the Anthropocene. Tayler Zavitz and Corie Kielbiski juxtapose Bong Joon Ho's *Okja* (2017) and Karen Joy Fowler's *We Are All Completely Beside Ourselves* (2013) to analyse the power of entertainment media in creating attitudes about animal rights and welfare activism. Nivedita Tuli and Azam Danish show the role of Instagram in environmental justice, and how the platform can distort and appropriate environmental and animal rights and welfare campaigns into personal celebrity, marketing and other political agendas. Jack Buchanan offers an analysis of ecological practice and worldhood in the work of Welsh filmmaker Scott Barley, while Nikki E. Bennett and Elizabeth Johnson talk *Tiger King*, and the impact the series has (or hasn't) had on public engagement with, and attitudes to, the ownership of big cats for human entertainment. Theoretical work from critical animal studies, posthumanism, the environmental humanities and media studies is brought to bear on subjects that are relevant to how we have navigated - or failed to navigate - interspecies relationships and the entanglement of humans and ecology in the past, and how the pandemic might yet offer us an opportunity to reconsider and change direction. This special issue, then, isn't simply 'about COVID-19'. Rather, it contributes to a process of reflection, speculation and reimagining that is vitally important at this moment.

In presenting this special issue, made up of contributions to a discussion of our environment and interspecies relationships before, during and immediately after COVID-19, we pay our respects to those who have lost loved ones to the pandemic, those who have faced threats to their livelihoods, and those for whom this global event exacerbated existing injustices, whether they are human or non-human. We hope that these contributions to the discussion can help readers to imagine positive post-COVID-19 futures for the environment and climate, and all of the species who rely upon them for their survival. As ever, I extend deepest thanks to all of the authors, peer reviewers and members of the editorial team for their hard work in bringing this special issue to fruition.

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Analysing Dairy Farming in Japan through the TV Drama *Natsuzora* ('Summer Sky')

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ABSTRACT

As the global concern with animal welfare grows, the roles of animals in various cultural and historical settings need to be examined. This study analyses a popular Japanese TV show, *Natsuzora* ('Summer Sky'), aired in 2019, that shows the life of a dairy farm in post-war Japan from the 1940s to the 1970s, when the consumption and production of meat and dairy gradually increased with technological development. This is contrasted with the present time, against the backdrop of the Tokyo Olympics 2020, and a rise in awareness regarding animal welfare. The study analyses of the story of *Natsuzora* and the different reactions towards it from the Ministry of Agriculture and the Animal Rights Center. It also scrutinises the social and historical background of the drama by referring to agricultural statistics from the 1940s to the present.

KEYWORDS

Animal Welfare, Milk Production, Hokkaido, Tokyo Olympics, *Natsuzora*

Introduction

Animal welfare is 'the physical and mental state of an *animal* in relation to the conditions in which it lives and dies' (World Organisation for Animal Health 2021).[1] It refers to the concept of realising the well-being of animals by avoiding their unnecessary suffering (Appleby, Olsson and Galindo 2018). Since the 1960s, starting in the UK, problems regarding modern livestock farming and the concept of animal welfare have been promoted. The Brambell Report in 1965 conceptualised animal welfare by formulating 'Brambell Freedoms' for farm animals, which later developed into the Farm Animal Welfare Council's 'Five Freedoms' in the early 1990s and formed the basis of subsequent animal welfare legislation in Europe (Appleby, Olsson and Galindo 2018). The focus of animal welfare continues to change from avoiding suffering to emphasising animal subjectivity, and it is applied to a wide range of animals (Mellor 2016; Appleby, Olsson and Galindo 2018). In the field of animal studies, animal welfare constitutes an important discussion topic, even from animal rights perspectives that reject all forms of animal use (Gruen 2018). Understanding of animal welfare is generally based on the Western theoretical framework. However, the social and cultural background of animal welfare has not been adequately discussed, and the roles of animals in different cultures and traditions affect the concept of welfare (Szűcs et al. 2012). This paper uses the example of

[1] This work was supported by Japan Society for the Promotion of Science (JSPS) KAKENHI Grant Number 19K13147 and Japan Science and Technology (JST) Moonshot MILLENNIA Program: Research on Post-Anthropocentric Values, Behavioral Styles, Science and Technology. The author gratefully acknowledges all the project members who helped conceptualise the basic idea of the paper. I would also like to thank the editor and the anonymous reviewers for reading and commenting on the essay.

animal welfare in Japan to examine the relationship between nonhuman animals, society, and culture.

It is noteworthy that the concept of animal welfare was being formulated in the UK when intensive farm animal production began in Japan. Dairy farming was introduced from Western countries to Japan in the late nineteenth century (Kamo 1976). Prior to that, the consumption of domesticated animals and their milk had generally been prohibited for about 1200 years in Japan, from the middle of the seventh century to the end of the nineteenth (Kamo 1976). As Japan was a Buddhist country, animals were not used or killed by humans for food (Szűcs et al. 2012). This prohibition continued until 1871, less than twenty years after Japan ended its national isolation (Ishida 2008). The new government advised people to eat meat and drink milk to gain physical strength, which was thought to be necessary to compete with modern Western countries (Kamo 1976).[2]

Although the consumption of meat and dairy products increased after the Meiji era (1868–1912), they were expensive and rare, and so limited to the wealthy class (Oshima 1970). It was not until World War II that these foods became common (Oshima 1970). The US occupation from 1945 to 1952 significantly changed Japan's dietary habits, including introducing bread, meat, and milk into the daily diet (Ishida 2008; Lee and Kobayashi 1982). Milk was also added to school lunches to improve children's nutrition (Masuda 2012). The consumption of milk per capita doubled from 1955 to 1965 (Oshima 1970). The number of cattle increased accordingly, but the number of dairy farmers decreased (Oshima 1970). During this period, many livestock farmers parted with their farms because they were required to expand their facilities with large capital investment (Nakahora 2015). Thus, dairy farmers were required to increase their milk yield, which was the beginning of large-scale farming in Japan (Nakahora 2015).

This study analyses a dairy farm depicted in a 2019 Japanese TV drama, *Natsuzora* ('Summer Sky'), to demonstrate how pastoral images and consciousness regarding animal welfare have been constructed in mass media in the context of the Tokyo Olympics and Paralympics 2020.[3] *Natsuzora* has been chosen as the subject of this paper because it is a popular TV programme with an average high viewer rating, which focuses on livestock farming even though the number of dairy farmers is relatively small in Japan. The drama illustrates the life of a woman who is raised by a stepfamily in a dairy farm in Hokkaido, the northernmost area of Japan, and leaves for Tokyo to become an animator. On the one hand, the drama shows the life of a dairy farm in post-war Japan from the 1940s to the 1970s when the consumption and production of meat and dairy increased with technological development. On the other hand, it aired in 2019, when the concept of animal welfare was finally starting to draw attention because of the Tokyo Olympics in 2020. The drama shows the gap between the emergence of factory farming and the period when the concept of animal welfare was introduced to Japanese society.

[2] For the history of meat-eating and the country's modernisation process, see Tatsuya Mitsuda's (2019) recent discussion of vegetarianism and nationalism in Japan.
[3] The Olympics were impacted by the COVID-19 pandemic in 2020. In March 2020, the Olympics were postponed to July 2021. According to a news survey conducted in January 2021, 80% of the public were in favour of either cancelling or rescheduling them (*Japan Times* 2021a). In March 2021, the organisers decided to ban overseas fans (*Japan Times* 2021b).

This study analyses the TV programme's story and the different reactions to it. The first section describes the development of dairy farming in the drama by referring to agricultural statistics from the 1940s to the present. The second section compares commentaries by the Ministry of Agriculture and the Animal Rights Center (ARC). I also scrutinise the social and historical background of the drama, including hosting the Olympics and the recent movement to promote women's participation in the workplace, by comparing the story arcs of the female protagonist and the dairy farm. In *Natsuzora*, the story of the protagonist as a pioneering female full-time animator runs parallel to the development of the farm.

The Story of *Natsuzora*: Pioneers Growing up with Cows

Natsuzora is a Japanese TV drama series that was broadcast in the morning from April to September 2019. The main character, Natsu Okuhara, who lost her parents during World War II, lives in Tokyo with her brother and sister. Owing to poverty, she is taken in by her father's friend, Takeo Shibata, whose family runs a dairy farm in Hokkaido. Natsu is raised by his family and milks cows with the head of the family, Taiju, who established the farm in the 1920s. To gain knowledge that could help the farm in the future, Natsu attends a local agricultural high school.

However, inspired by her friend and an American animated movie, she becomes interested in creating animated films. She is also eager to see her brother and sister in Tokyo. With the support and encouragement of the Shibata family, she graduates from high school and moves to Tokyo to work at an animated film production company and to find her siblings. She and her brother reunite after being separated for ten years. She reveals her talent as an animator and produces many popular animated movies and TV series. While creating works based on her own experiences of the war and life in Hokkaido, she finally finds her sister, who had been missing for over ten years.

Serial television novels (*renzoku terebi shōsetsu*) are Japanese TV drama programme series produced by the Japanese public broadcaster Nippon Hōsō Kyōkai (NHK). The series, referred to as 'morning drama' (*asadora*), is broadcast every Monday to Saturday from 8am to 8:15am for half a year. Beginning in 1961, some series gained popularity in the nation, such as *Oshin* (1983-4) and *Amachan* (2013) (Kinomata 2017), and have been translated into foreign languages and broadcast overseas (NHK Drama Bangumi-bu 2015). Many of the programmes present women who overcome difficulties during and after World War II, and they are categorised as *Bildungsromans* (Shiina 2020). They are often a gateway to career success for young female actors (NHK Drama Bangumi-bu 2015). To celebrate the hundredth series, some former female actors appeared in *Natsuzora* as supporting actors. While the audience rating of TV dramas has declined, serial TV novels have maintained an average rating of 20%, which is true even of the programmes broadcast since the 2010s (Yabe 2018). *Natsuzora* also recorded an average rating of 20% (Nihon Keizai Shimbun 2019).

Natsuzora was set in the period from 1946 to 1975. This was the time when Japan saw rapid economic growth and radical changes in society and people's lifestyles. After Natsu graduates high school in 1956, she moves from Hokkaido, where she lives with the Shibata family on

their ranch, to Tokyo. In Tokyo, she maintains a close relationship with the Shibata family, sometimes returning to Hokkaido for holidays and for inspiration for her animations. As she finds success in her career, Shibata Ranch shifts from small-scale, family-based livestock farming practices to modernised farming methods that allow the family to produce and sell milk more efficiently.

Let us examine Shibata Ranch's history as described in the drama. The owner and founder of the ranch, Taiju Shibata, was born in Toyama Prefecture, the north-western part of the main island of Japan. When the Japanese government promotes settlement in Hokkaido in the early twentieth century, he comes to the region alone to escape poverty. He tries to cultivate the land and grow rice, but because the region's soil is not suitable for grains and vegetables, he starts dairy farming. He plays a leading role in the region by sharing his knowledge of farming with neighbouring farmers. When Natsu first comes to the ranch in 1946, Taiju and his two employees are working there.[4] Natsu, as a war orphan, feels grateful to the Shibata family for accepting her despite them not being related by blood, and she devotes herself to helping them take care of the cattle.

Figure 1. Cows tied with rope.
***Natsuzora* Episode 2**
(Source: Author's Screenshot)

Figure 2. Cows tied using stanchions.
***Natsuzora* Episode 13**
(Source: Author's Screenshot)

[4] While one of Taiju's grandchildren, Teruo, helps them and takes over the ranch in the future, his younger sister Yumi is not involved in the family business when she is young. She says that she does not like milk, and spends most of her time reading books. She enters the Department of Literature at Hokkaido University. This is a great achievement as she is the first female university student in the area. Natsu and Yumi are the same age, but Taiju feels closer to Natsu than his granddaughter as he sees Natsu working hard at the ranch, and because he shares a similar experience with her (he also lost his parents when he was a child, as is revealed in a later episode).

Shibata Ranch's story shows the development of dairy farming in the northern part of Japan. Hokkaido, particularly the Tokachi area where Shibata Ranch is located, is now known for its dairy farming and products. As the story of *Natsuzora* progresses, some changes can be observed in the farming methods at Shibata Ranch. For example, in the late 1940s, the cows in the barns were loosely tied with rope (Figure 1). When Natsu entered high school in the mid-1950s, they were tied using stanchions in a newly established barn (Figure 2).

Stanchions fit around the necks of cows for ease of managing individual cattle (Chikusan Gijutsu Kyōkai 2020). This reflects reality, because as the number of dairy farmers increased, new barns were built during the 1950s and, to save labour, stanchion barns were constructed in the place of loose-housing barns (Ozaki and Miyoshi 1968).

The milking methods used at the farm also change. Natsu learns how to milk without hurting the cow's udder by watching Taiju and other experienced employees. The neighbouring Yamada family cannot afford to own their own cows, and so rent a cow from Shibata Ranch. To increase milk production and thus increase their income, the family feeds the cow clover. However, they provide excessive amounts and the cow suffers from ruminal tympany, a disease affecting ruminant animals and caused by gas in the rumen (Episode 23). When Natsu returns to Shibata Ranch in 1975, the Shibata family uses bucket milkers and discusses installing a new milking pipeline to increase milk production with a limited number of workers (Episode 154).

Natsuzora also describes changes in the production and sale of dairy products. During Natsu's childhood, milk is sold through the ranch owner's acquaintances, and butter is processed using a butter churn, as seen in Episode 10 (Figure 3). Shibata Ranch starts selling products through the local agricultural cooperative to stabilise the price of milk and butter and to expand their distribution. With the family's support, a butter factory is established in the 1970s owing to the city's desire to make dairy the main industry in the region. *Natsuzora* also illustrates the production of food items such as ice cream and sweets using local dairy products, which are now popular as local cuisine and souvenirs in Hokkaido.

Figure 3. A butter churn.
***Natsuzora* Episode 10**
(Source: Author's Screenshot)

Commentaries by the Ministry of Agriculture and the Animal Rights Center

I would like to consider the development of these livestock technologies in the drama by comparing commentaries by the Ministry of Agriculture, Forestry and Fisheries and the welfare group, the ARC. Since the drama focuses on dairy farming in Hokkaido, the ministry supported the drama for its promotion of the dairy industry.[5] The Livestock Planning Division provided commentaries to some of the episodes on the Ministry's website. To explain the farming methods depicted in the drama, they shared trivia about milk, dairy products, and the livestock industry twenty-three times during the drama's airing period (Nōrin Suisanshō 2019). The ARC, which was established in 1987 to improve animal welfare in Japan, responded to the Ministry's commentaries from an animal-focused perspective (Animal Rights Center 2019). The two organisations hold different opinions on *Natsuzora*.

For example, in Episode 2, Natsu drinks milk at the ranch for the first time and is impressed by its freshness, exclaiming 'Delicious!' (*Oishii*). The Ministry's commentary for this episode was titled 'Milk is Delicious' (*Gyūnyū wa oishii*) and explains how milk is produced. The webpage shows a photo of grazing cows with a caption, 'Image is for illustration purposes' (*Gazō wa image desu*) (Figure 4). The commentary by the ARC pays careful attention to the pastoral image of livestock farming presented in the drama and the Ministry's commentary:

> Some people may have an idyllic image of dairy when they see *Natsuzora*, but modern dairy does not have that atmosphere. In the scene at the barn, Natsu is not allowed to milk immediately. The following dialogue is delivered: 'If you don't know cows, the amount of milk decreases. First of all, get along with cows'. However, there is no time for modern dairy farmers to 'get along' with cows […] The image [shown in the ministry's commentary, Figure 4] as seen on the milk package is different from reality. If you get a job in dairy with such an image in mind, you will be disappointed. It is better to be careful. (Animal Rights Center 2019)[6]

[5] The consumption of milk in Japan has been declining since it peaked in 1994 (Kubota, Nakano and Kono 2012). In April 2020, when the government declared a state of emergency owing to the COVID-19 pandemic, milk demand dropped by 30% without daily school lunches. A YouTube video, in which an official from the Ministry of Agriculture in a cow costume requested the nation to drink more milk, went viral during the stay-at-home period (Stapczynski 2020).
[6] Author's own translation of the commentary.

Figure 4. Image of a dairy farm, from the Ministry of Agriculture, Forestry and Fisheries website
(Today's *Natsuzora*: Commentary from the Ministry of Agriculture)
URL: https://www.maff.go.jp/j/chikusan/kikaku/lin/natsu_zora/#0402 (Accessed: 18 September 2021). Used with permission.

Calculating the number of cows per dairy farm in Japan, the ARC contrasts the average five to six cows in the drama with an average of eighty cows in real farms in 2017. The Center emphasises that the situation in the drama appears like 'heaven' for cows compared to the actual setup in contemporary milk production centres (Animal Rights Center 2019). As Peter Singer describes dairy cows in the era of factory farming in his book *Animal Liberation* (1975), they are now a 'fine-tuned milk machine':

> The dairy cow, once seen peacefully, even idyllically, roaming the hills, is now a carefully monitored, fine-tuned milk machine. The bucolic picture of the dairy cow playing with her calf in the pasture is no part of commercial milk production. Many dairy cows are reared indoors. Some are kept in individual pens with only enough room to stand up and lie down. Their environment is completely controlled: they are fed calculated amounts of feed, temperatures are adjusted to maximize milk yield, and lighting is artificially set. (Singer 2009, 137)

The Center has criticised the anachronistic scenery of the ranch in the drama; today, it is no longer possible to see cows graze in such settings. Almost 70% of farmers in Japan do not graze cows, mainly because of the lack of space (Chikusan Gijutsu Kyōkai 2015).

While the Ministry of Agriculture supported the drama for its promotion of the dairy industry, the ARC has asserted that the methods it depicts increase animal suffering. Throughout the Ministry's commentaries, it argues that the post-war livestock industry has developed through mechanisation. When the Shibata family considered installing a milking pipeline, the Ministry presented this as an optimistic concept, as mechanisation would reduce the burden on dairy farmers (Nōrin Suisanshō 2019). However, the ARC emphasises that mechanisation increases the suffering of cattle. The Center takes the example of the use of stanchions at Shibata Ranch. Stanchions make it easy to manage individual cattle but limit the movement of cows, causing arthritis and sleep deprivation due to a lack of exercise (Chikusan Gijutsu Kyōkai 2020). In recent years, the use of stanchions has declined, and farmers have shifted back to tying the cows loosely with rope (Chikusan Gijutsu Kyōkai 2015).

Regarding these differing opinions about the drama, it should be noted that it does not always show only the positive aspects of technology. In Episode 154, when Natsu returns to Hokkaido in 1975, the cows are no longer tied using stanchions. Instead, the farm uses tie stalls with looser chains and ropes (Figure 5), which the ARC does not mention in the commentary. On a stormy night, the milker ceases to work because of a power outage, and the entire family proceeds to milk the cows by hand. This is because cows are susceptible to bovine mastitis if they are not milked properly (Chikusan Gijutsu Kyōkai 2020). At this time, the family prioritises the safety and health of the cows over the storage and sale of milk. Older Taiju tells his grandson, Teruo, who takes over the ranch, that 'the most important thing [for dairy farmers] is not to work or earn money. It is living with cows' (Episode 155). The last part of the drama looks back at the protagonist's childhood, when her family had fewer cows. This shows that the new technology installed on the farm does not always have a positive effect on farmers and their cattle.

Figure 5. Cows in tie stalls.
***Natsuzora* Episode 154**
(Source: Author's Screenshot)

Watching *Natsuzora* in 2019: Preparing for Tokyo Olympics 2020

When we examine the farming methods and relationship between humans and cattle in *Natsuzora*, we must consider the social background of the period when the drama aired in 2019, a year before the Tokyo Olympics. Hosting the Olympics was expected to increase the number of foreign tourists in Japan and to stimulate the national economy so that the nation could recover from the 2011 Great East Japan Earthquake (Yoshimi 2020).

Preparing for the Olympics also emphasised the importance of animal welfare in Japan. Currently, laws and regulations for animal welfare have been enacted in Europe, the United States, and many other developed countries (Appleby, Olsson and Galindo 2018). However, Japanese agriculture continues to practice factory farming methods as it exports few livestock products, and there is no economic pressure to change these methods (Kayashima 2018). For the Olympics, however, Japan is required to follow the sustainability standard for athletes' meals set by the International Olympic Committee (Fukasawa 2018). In 2018, some athletes asked organisers to source cage-free eggs and stall-free pork (Legacy for Animals 2018). Under

the guidance of the Ministry of Agriculture, discussions about animal welfare finally began in Japan (Chikusan Gijutsu Kyōkai 2020).[7]

As the ARC argues, *Natsuzora*'s ranch may convey an idyllic and anachronistic setting to the audience in 2019. However, as Philip Brasor (2019) points out, the drama does not represent modern dairy since 'the drama is set during a time before factory farming became the norm' in Japan. By illustrating life on a dairy farm before modern farming methods were introduced, the importance of forging close relationships with animals and 'getting along with' them, as Taiju says, is reiterated.

Social and cultural oppression of animals and women and exploitation of female bodies have often been juxtaposed (Adams 2015). During the preparation for the Olympics, animals and women became controversial topics often discussed in Japanese society. In February 2021, the head of the Tokyo Olympics organising committee resigned after he was criticised for making sexist remarks about women (BBC 2021). Hosting the Olympic Games brought the debate and discussion of animals and women further into the spotlight in Japan.

The ARC evaluates *Natsuzora* from an animal welfare perspective, and it is important to watch the drama from a perspective other than that of the dairy farmers. One perspective to consider in *Natsuzora* is that of the women, as one of its themes is women's active participation in the workplace. Japan is notorious for its gender gap: it was ranked one hundred and twenty-first out of one hundred and fifty-three countries on the Global Gender Gap Index 2019, which measures the gender gap in social advancement in various countries (Osaki 2019). Under Prime Minister Shinzo Abe's administration, the Act on Promotion of Women's Participation and Advancement in the Workplace was enacted in 2015 (Kato and Zaimushō Zaimu Sōgō Seisaku Kenkyū-jo 2016). As a result, companies are obliged to formulate an action plan to promote the active participation of women. However, women's participation in the workplace continues to be low. Indeed, many women find it difficult to balance work and childcare and leave their jobs in their late twenties (Kato and Zaimushō Zaimu Sōgō Seisaku Kenkyū-jo 2016).

Natsuzora juxtaposes the story of a farm and the protagonist's life as the first female animator. Natsu becomes an animator after moving to Tokyo and marries a former director at her animation production company. At a time when it was normal at the company to leave work after marriage to focus on childcare, she decides to continue working full-time. After giving birth, she receives childcare support from her unemployed husband, female colleagues, and a nursery. While raising her daughter with formula milk, she takes a leading position at the company. As Kinomata points out, NHK's serial television novels are often closely related to the contemporary situation of women in society (2017). Most of the audience for the early series (i.e., in the 1960s and 1970s) were full-time housewives, and they enjoyed watching stories about families. Just before the enactment of the Equal Employment Opportunity Law in 1985 (Kato and Zaimushō Zaimu Sōgō Seisaku Kenkyū-jo 2016), women protagonists of the serial television novels started working. They actively depicted problems and difficulties women face at work and at home (Yabe 2018).

[7] According to a survey on dairy cow management in 2015, 70% of farmers think it is important to consider animal welfare (Chikusan Gijutsu Kyōkai 2015).

Figure 6. Natsu remembers a cow's birth.
***Natsuzora* Episode 13 and 125**
(Source: Author's Screenshot)

Figure 7. Natsu saves a calf's life with artificial respiration.
***Natsuzora* Episode 13**
(Source: Author's Screenshot)

When Natsu gives birth to her daughter, she recalls a cow's birth at Shibata Ranch. Her suffering from labour pain is intercut with clips from Episode 13 of a cow's breech delivery (Figure 6). During the cow's delivery, she used the knowledge she had gained at high school to help birth the calf and, upon seeing it was not breathing, brought it back to life with artificial respiration (Figure 7). Episode 13 is also important as Natsu's actor changes from Sari Awano, who plays her as a child, to Suzu Hirose, who plays her as an adult. Thus, *Natsuzora* parallels the protagonist's growth from a girl to a mother and the birth of a cow, positing a bond between them. Natsu's growth at Shibata Ranch parallels her gaining knowledge about cows, and she learns about her physical changes as she grows from being a girl to a mother by observing dairy cattle. In addition, the bond between her and the cattle leads to the bond between her and her daughter when she formula-feeds her. Natsu grows up forging a close relationship not only with a family in Hokkaido, with whom she had no blood relationship, but also with cows, making, as Donna Haraway suggests, a kinship or multispecies relationship (2003).

At a glance, the story of *Natsuzora* supports the government's policy to promote women's participation in the workplace by depicting the life of a woman who succeeds in her career. However, it did not show male colleagues supporting her. When she finds out that she is pregnant and requests to continue working full-time, her colleagues just say, '*Ganbare*' ('good luck' or 'do your best') (Figure 8). The phrase '*Ganbare*', which is often used in this drama, places responsibility on the individual. Even when she works late immediately before and after

the birth of her child, she rarely receives help from male colleagues. When Takeo's wife, Fujiko, comes to Tokyo from Hokkaido to take care of Natsu's daughter, she thinks that Natsu might fall sick from working too hard at the company.

Figure 8. Natsu requests to continue to work full-time.
***Natsuzora* Episode 120**
(Source: Author's Screenshot)

Another important perspective to consider in the context of *Natsuzora* is that of the indigenous people, the Ainu. The livestock industry in Hokkaido was established by exploiting the land of the Ainu (Emori 1998). After the Declaration on the Rights of Indigenous People passed by the United Nations in 2007, the government of Japan recognised the Ainu as indigenous to Japan. In 2019, the Act on Promoting Measures to Realize a Society in Which the Pride of the Ainu People Is Respected came into force (Umeda 2019). A year after the drama series aired, in 2020, the National Ainu Museum Upopoy was founded in Hokkaido to promote the understanding and awareness of Ainu history and culture (Upopoy 2020). However, the history of Hokkaido in *Natsuzora* was shown only from the perspective of Japanese settlers, never once mentioning the Ainu.[8] Through the successful life stories of Taiju and Natsu, the drama emphasises the positive aspects of the 'pioneering spirit' (*kaitaku seishin*), such as a strong will to overcome difficulties, efforts to achieve success, and bonds with family and the settlers' community. It never mentions that the pioneers' social and cultural success has been achieved by sacrificing the indigenous people's rights. Overall, while *Natsuzora* shows the growth and success of war orphans and colonial settlers, it pays little attention to the suffering of nonhuman animals, women, and indigenous peoples.

Conclusion

Looking back at the history of post-war dairy farming in Hokkaido, *Natsuzora* shows how pastoral images and consciousness regarding animal welfare were being constructed immediately before the Olympics. The drama illustrates the development of factory farming and milk production, as seen in reality, from the 1940s to the 1970s, which represents a period of economic growth and technological improvement in the country. The Ministry of Agriculture and the ARC have different opinions on the development of dairy farming methods; while the former believe they reduce the burden on farmers, the latter think they

[8] The only element in the drama that reminds the audience of the indigenous culture is a theatrical performance and costumes in the high school drama club in Episode 24.

increase the suffering of the cattle. This suggests that the popular TV programme mainly depicts the successful and heart-warming story of the war orphan and dairy farmers, ignoring the immeasurable suffering of the unheard, including non-human animals, women, and the indigenous people who have existed on the periphery of the history. The analysis of the drama also indicates that it does not illustrate the technological development in a linear way by showing the close relationship between humans and cattle in a small barn.

In 1964, Tokyo hosted the Olympic Games for the first time, which symbolised its recovery from the war and economic growth (Yoshimi 2020). The same year, British activist Ruth Harrison originally published *Animal Machines* and exposed the suffering of farm animals (2013). As modern animal husbandry emerged in northern parts of Japan, welfare conditions in British livestock farming were beginning to be investigated. About fifty years later, a nuclear power plant built to produce more energy during this period of economic growth caused a severe environmental crisis during the Great East Japan Earthquake of 2011, forcing Japanese society to change its values regarding life, science, and technology. Ten years later, the Tokyo Olympics 2020 are planned to symbolise the recovery from the earthquake of 2011 and from the COVID-19 pandemic of 2020.

It was beyond the scope of this analysis to elaborate on the role of media and fictional work in shaping the concept of animal welfare in each region and culture. Future research may examine how the media portrays the reality and ideals of livestock farming to the public. As the relationship between humans and non-humans is reconsidered after the outbreak of the zoonotic COVID-19 pandemic in 2020, society must also re-examine the environment and welfare of livestock animals. As the concept of 'One Health' in animal welfare advocates (United Nations News 2021), animal and human health cannot be separated.

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The Online Genetically Modified Food Debate: Sociotechnical Imaginaries and Genetically Modified Animals

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ABSTRACT

The aim of this article is to investigate the sociotechnical imaginaries present in UK online news articles and below the line comments (the comment and debate spaces opened up underneath news articles) in connection with genetically modified animals. This article attempts to provide an answer through a qualitative study using discourse analysis. The findings reveal how sociotechnical imaginaries present in news articles depict genetically modified animals as 'other' in comparison to those bred through selective breeding. In the below the line comments, a key feature is monstrosity. Here, the sociotechnical imaginaries draw on the concept of 'other' along with Frankensteinian imagery. Nature also features in the sociotechnical imaginaries in the news articles. Journalists present genetic modification as overcoming nature, as well as scientists designing nature. The article concludes by discussing how sociotechnical imaginaries can bring invisible non-human animals to the fore.

KEYWORDS

Genetically Modified Animals, Sociotechnical Imaginaries, 'Other', Monster, Nature

Introduction

An analytic order is imposed on the natural world by splitting fauna into particular types of beings.[1] These splits create borders between species. The term animal encompasses all other species of animals except humans, and has inspired the use of phrases such as 'other animals', 'non-human animals', and 'other than human animals' (Carter and Charles 2011; Haraway 2016). To be human affords a uniqueness over other animals. The boundaries between human and non-human are not natural, but are constructed through the use of hegemonic discourses, which depend on the fundamental meanings of what it is to be 'human' or 'animal' in order to sustain the human/cultural subject separate from the animal/natural object. Throughout the remainder of this article, non-human animals will be referred to as animals.

Humans can influence the evolution of organisms through selective breeding by choosing which individuals mate, by cloning, and by genetically modifying organisms with genes from other species (Russell 2004). Genetic modification (GM) is where a gene from one species is inserted into the genome of another species (Phillips 2008). With this technology, human intervention occurs on the cellular or subcellular level (Russell 2004). The genetic modification of animals is causing a rethink of what is natural. There are now new opportunities for

[1] The author would like to thank the anonymous referees for their helpful feedback and advice.

redesigning, manipulating and controlling animals through molecular techniques (Twine 2007).

Literature Review

Sociotechnical Imaginaries

Sheila Jasanoff and Sang-Hyun Kim (2009, 120) first defined sociotechnical imaginaries as 'collectively imagined forms of social life and social order reflected in the design and fulfilment of nation-specific scientific and/or technological projects'. They first used this concept to determine why nation states followed different technological trajectories even when facing the same benefits and challenges associated with nuclear power. Because of the many ways in which scientific and technological knowledge can enter into the meaning, materiality and morality of social life, this definition was lacking. Jasanoff (2015a, 4) has refined the definition of sociotechnical imaginaries to be 'collectively held, institutionally stabilised, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology'. Jasanoff (2015a) does point out that the word 'desirable' is used because scientific and technological developments are often justified as being socially progressive, even though unforeseen risks and hazards may occur through the use of such developments. It is possible for both utopian and dystopian imaginings to occur (Jasanoff and Kim 2009). Even more so, 'multiple imaginaries can be spun from the same raw materials of invention and will' (Jasanoff 2015b, 339).

Charles Taylor (2002, 106) explains that the social imaginary is how 'people imagine their social existence, how they fit together with others, how things go on between them and their fellows, the expectations that are normally met, and the deeper normative notions and images that underlie these expectations'. Sociotechnical imaginaries allow individuals to make sense of what is happening in the world around them. Sociotechnical imaginaries also create a shared sense of belonging, and help construct meanings which enable collective interpretations of social reality (Jasanoff and Kim 2009). However, it needs to be acknowledged that there are many different perspectives for sociotechnical imaginaries, and hence, these are only partial perspectives (Braidotti 2019).

Different perspectives underpin social complexity. For example, science is important but it does not operate in isolation. As Jasanoff explains:

> […] scientific knowledge, in particular, is not a transcendent mirror of reality. It both embeds and is embedded in social practices, identities, norms, conventions, discourses, instruments, and institutions – in short, in all the building blocks of what we term the social. The same can be said even more forcefully of technology. (2004, 3)

Scientific knowledge is produced because society supports its production (Irwin and Michael 2003). However, it is important to note that citizens attach different morals and values to scientific ideas and technological inventions (Jasanoff 2015a). Citizens may accept certain scientific ideas and technologies and not others. This is why sociotechnical imaginaries are useful in revealing the known and the desired sociotechnical present and futures.

In this study, sociotechnical imaginaries are used as the framework to analyse the online news articles and below the line comments. The use of sociotechnical imaginaries as a framework is fruitful because it offers a window into different visions of the present and future. Having examined sociotechnical imaginaries, in the following two sections, I discuss the construction of 'other' and monsters, and nature.

'Other' and Monsters

The construction of 'other' is related to the 'norms' of 'self' and society where difference is not always acceptable. This unacceptability and the representation of 'other' is always connected to the representation of 'self' (Wright 2020). The recognition of being different and the acceptance of difference is made possible through repression in the 'self'. The construction of 'other' means discrediting and disowning what is viewed as being different (Wood 2020). As Zuleyma Tang Halpin (1989, 286) argues, 'the "other" by definition, is the opposite of the "self", and therefore comes to be regarded as intrinsically of lesser value'. The relationship between 'self' and 'other' is hierarchical and is used to justify and sustain existing power relationships. This can be achieved because the familiar and similar to 'self' is considered good, whilst strange and evil is viewed as 'other' (Wright 2020).

'Other' is also bound to the idea of monstrosity (Wright 2020). To be a monster is to be 'other'. A monster exists because it occurs through an act of being named. Just like 'other', it is a social construct. As Jeffrey Cohen (2020) argues, the monstrous only exists because it is socially constructed. However, the construct of a monster is powerful. If a monstrous body can be classified, then it can become 'other'. The problem arises when a monstrous body cannot be easily constructed as 'other', therefore undermining the existing structures of 'self' and 'other' (Wright 2020). The threat from the power of monsters exists because of their wretchedness, their ability to shock, and their potential for horror (Dixon 2008).

Whilst I have provided an outline of what 'other' and monstrous means, the concept of 'other' is important when considering animals. This is because animals are already viewed as 'other' (Scholtmeijer 1995). Carol Adams (2018, 104) argues that 'through the human/other dialectic "human" de-facto represents Euro-American (human) maleness and "other" represents that which white maleness negates: other races, sexes, or species'. Animals can be constructed as 'other' through the use of 'innocuous phrases such as "food-producing unit", "protein harvester", "converting machine", "crops" and "biomachines"' (Adams 2015, 27). In part, this is because the relationship between animals and 'otherness' is yet to be disrupted (Adams 2018). Until this disruption occurs, these types of phrases will continue to be used. Having discussed the construction of 'other' and monsters, I now move on to the construction of nature.

Nature

The discourse of nature is important because it belongs to science, personal discussions, religion, recreation, poetry, and painting (Cook 2004). Nature is entangled with social life (Irwin 2001), and as a discursive construction, nature is powerful (Haraway 2020). Nature can be thought of as a 'figure, construction, artefact, movement, displacement' (Haraway 2020, 461). There are complex and sometimes conflicting discourses surrounding nature (Soper

2010). Anders Hansen has identified a number of constructions of nature, and these are as follows:

- Nature as good, pure, nourishing, nurturing, balanced, and harmonious
- Nature as vulnerable or threatened
- Nature as imperfect
- Nature as powerful, not to be messed or tinkered with
- Nature as a challenge
  Adapted from Hansen (2006, 813-14).

The richness of the meaning of the word nature, along with its different meanings makes it a powerful construct. These alternative constructs of nature show there are likely to be different opinions about nature.

Nature is an important sociotechnical imaginary when considering genetic modification. As genes occurring naturally are artificially amended by scientists, understandings of nature become bound up with science and scientific progress (Wall 1999). However, instead of considering how well nature is known scientifically, the focus should be on how scientists interact with nature (Bird 1987). As Lynda Birke (1995) argues, in the Judeo-Christian tradition, humans are dominant over nature. Therefore, nature is there for humans to manipulate and use. Science is also about objectivity and the production of facts by standing outside of nature (Birke 1995; Halpin 1989). Scientists can conduct experiments objectively because they stand outside of nature.

However, humans standing outside of nature is problematic. Alan Irwin and Mike Michael express this as follows:

> [if] we wish to treat seriously people's sense of belonging to particular places, and their lived mutualistic relationships with particular bodies, animals and environments, then we will need to consider carefully how such bodies, animals and environments might act within assemblages. (2003, 143)

It is necessary to understand the relationships and interactions between humans, animals and environments. Acting within assemblages allows '"We"-who-are-not-one-and-the-same-but-are-in-this-convergence-together' (Braidotti 2019, 182) to come together in unforeseen collaborations and associations. This also helps move away from the argument that nature is only protected because present and future generations of humans rely on its survival (Vance 1995). As this section illustrates, nature is a powerful construct. In the final section, I discuss previous research.

Previous Research

Research concerning news coverage of animals has tended to focus on animal welfare (Buddle and Bray 2019; Freeman 2009; Freeman et al. 2011). Emily Buddle and Heather Bray's (2019) study focused on the framing of farm animal welfare in Australian newspapers. They identified two dominant frames. Firstly, governments and farm animal production industries could not be trusted to ensure good animal welfare. Secondly, consumers could assist in improving farm animal welfare through ethical consumption practices. Carrie Freeman (2009) examined US

news coverage of farmed animals from 2000 to the end of 2003. She found that animal sentience was disregarded and news coverage amplified industry use over animal protection. Freeman et al. (2011) argue for the inclusion of animals' voices in news coverage. They argue this is required because news coverage should be obliged to inform citizens of how actions are impacting both humans and animals. This would enable choices to be made which are fair and responsible. These studies of news coverage of farmed animals illustrate how food has always been 'more-than-food' (Goodman 2016, 258). There is a need to consider how food, especially 'meat', is produced.

There have been numerous studies on the news coverage and reporting by journalists of GM food and crops in the UK and from around the world (Augoustinos et al. 2010; Bauer 2002; Cook et al. 2006; Flipse and Osseweijer 2012; Hornig-Priest and Ten-Eyck 2003; Maeseele 2015; Marks et al. 2007). Since the publication of some of these studies, digital spaces have become more prevalent. Facebook, Twitter, Instagram, blogs and websites have become more established in the food media landscape (Goodman and Jaworska 2020). Below the line comments, 'industry parlance for the comment, and debate spaces opened up underneath news articles and blogs' (Graham and Wright 2015, 319), are enabling audience members to participate in news making activities.

To my knowledge, no research has been conducted which examines news coverage or the associated below the line comments in respect of genetically modified animals. This research aims to address this gap and sets out to answer the question: Which sociotechnical imaginaries concerning genetically modified animals are present in UK online news articles and the associated below the line comments? To answer this question, a qualitative study was undertaken using discourse analysis to analyse UK online news articles and the associated below the line comments.

Methods

The methods presented here are part of a larger research project (Price 2018) conducted from September 2014 to September 2018.

Data Collection

A qualitative study was undertaken which included online news articles and the associated below the line comments from UK online news organisations. The news organisations included in the sample were *The Guardian*; *The Telegraph*; *The Times*; *The Daily Mail*; and *The Mirror*. These also included the Sunday editions. The sample included what have traditionally been seen as the broadsheets (*The Guardian*; *The Telegraph*; and *The Times*), and the tabloids (*The Daily Mail* and *The Mirror*). The news organisations included in the sample were chosen because of their diversity of content. The broadsheets generally are assumed to provide more in-depth content, whilst the tabloids tend to be more concise and simplistic. The sampling time frame ran from 1 January 2015 until 31 December 2015, enabling a sufficient data set to be collected. The overall sample gathered seventy-eight articles and 9,279 below the line comments. The sample of subset data concerning GM animals consisted of seven articles and one hundred and fifty-two below the line comments.

An important consideration which has to be taken into account with this study, is that those who post comments may be those who are particularly interested in the subject of GM animals. The views of those commenting are seen as being representative for this study and may not be characteristic of the population as a whole. However, this data is first hand from the audience who are interested in commenting about GM animals. Their views, feelings, understandings, and beliefs are revealed in the comments they post.

Data Analysis

Whilst there are many types of discourse analysis, the version used in this study is that developed by James Gee (2011). By conducting discourse analysis, questions are effectively asked of the text being examined. According to Gee (2011), there are seven different building tasks used in the construction of language whenever we speak or write and for each, it is possible to ask a discourse analysis question. These seven building tasks are significance; practices (activities); identities; relationships; politics; connections; and sign systems and knowledge. The seven building tasks are fundamentally interlinked with each other (Gee 2011).

In respect of selecting samples to analyse, a strategy Norman Fairclough (1992) proposes is to focus on those elements of the discourse where there is an indication and evidence that something is amiss and is going wrong such as misunderstandings. He also suggests focusing on areas of discourse which are pivotal, indicate something which is vital, or are puzzling. These suggestions were followed and those extracts which best represented a pattern of 'other', 'monster' or 'nature' in the subset data were selected. These three patterns were chosen as they were the most interesting. The questions described above for Gee's (2011) seven building tasks were then applied to the text extracts. An example of how the seven building tasks and the related discourse analysis questions were applied to the data are available in Price (2018).

In the findings which follow, any spelling mistakes or grammatical errors are left unchanged in the extracts taken from the news articles and below the line comments. It is acknowledged that readers of this article may have different interpretations of the data that are presented here.

Results and Discussion

'Other' and Monsters

The first sociotechnical imaginaries are of 'other' and monsters. These two imaginaries are described together because they are interrelated.

News Articles

The first extract comes from a news article which describes research being undertaken by the Roslin Institute, University of Edinburgh. Pigs were genetically modified to be resistant to the disease, African Swine Fever.

> On an isolated farm outside Edinburgh, pigs grunt eagerly as their food arrives. The barn has a typical farmyard whiff, and a litter of tiny piglets, born just hours earlier, lie with trotters outstretched and eyes sealed, as helpless as any newborns. Only the occasional

> fluorescent snout or trotter reveals that the building is home to one of the world's most advanced genetic modification projects.
>
> 'Could these piglets become Britain's first commercially viable GM animals?' (Hannah Devlin, *The Guardian*, 23 June 2015).

This is the introduction to the news article. The first two sentences describe a scene which would be expected in a farm setting. The journalist describes an evocative image which enables the reader to visualise the scene. The journalist first constructs the pigs as 'normal' animals. The following sentence, which describes the fluorescent snout or trotter, positions the pigs as 'other'. As animals are characterised by their unique physical and behavioural traits (Orland 2004), a fluorescent snout or trotter does not fit with the usual construction of a pig breed. The pig's fluorescent snout acquired through genetic modification makes it 'other'.

The construction of 'other' can also be seen in the next two extracts which focus on 'Green Sheep'. The two extracts are from different news articles but describe the same event. A genetically modified lamb which was used for research purposes at a research institute in France, had been allowed to enter the food chain.

> In what could have been the plot of a science fiction film, Emeraude and Rubis were reportedly part of a programme called Green Sheep launched in 2009, aimed at carrying out experiments on mammals for 'therapeutic research'. The jellyfish protein was reportedly introduced into the sheep to make their skin transparent and enable researchers to 'visualise and study heart transplants'.
>
> 'Lamb with jellyfish gene "may have been deliberately sent to abattoir"' (Kim Willsher, *The Guardian*, 23 June 2015).
>
> Rubis was the fruit of Inra's so-called 'green sheep' programme launched in 2009 to produce lambs genetically modified to contain a green fluorescent protein originating from a jellyfish. The proteins make the skin transparent and give off a greenish glow when exposed to certain ultraviolet light. Typically, they are used to monitor the activity of altered genes, and in this case to monitor transplants for heart disease.
>
> 'Genetically modified "jellyfish lamb" accidentally hits French dinner plates' (Henry Samuel, *The Telegraph*, 23 June 2015).

Both journalists describe the sheep as being part of the 'Green Sheep' programme. There are a number of ways in which the sheep are defined as 'other' by the journalists. By describing the colour as green, the sheep are constructed as 'other'. Sheep can be black, brown, white, grey or fawn (British Coloured Sheep Breeders Association 2020). The journalists also claim the sheep are 'other' by framing their use as animals used in research for heart transplants. These are not 'normal' sheep because their skin glows green under ultraviolet light in order to be used for scientific research purposes. The monstrous 'other' is also depicted here due to the sheep containing a protein originating from an unrelated species, the jellyfish. This is because monsters can cross categories or overlap species groups (Lorimer and Driessen 2013). Monsters are 'present as freak, or grotesque […] the irregular, the anomalous and the aberrant as manifest in bodily, mental and moral deformities' (Dixon 2008, 681). It is bodily deformities which are present in 'Green Sheep'.

Below the line comments also contained sociotechnical imaginaries of 'other' and monsters.

Below the Line Comments

The first comment was in response to the news article in *The Guardian* concerning the genetically modified lamb entering the food chain.

> It's nothing to do with GM food. The jellyfish protein is a fluorescent protein that's used as a marker - it glows green when it's exposed to UV/blue light. Sheep cells are being used to test a new medical procedure. The protein (GFP) is used to monitor the progress of the experiment. The meat from the lamb would contain a minuscule fraction of a percent of the "jellyfish" protein. To all intents and purposes it's the same as normal lamb meat and would not harm anyone eating it.
>
> Comment relating to the article, 'Lamb with jellyfish gene "may have been deliberately sent to abattoir"' (Willsher 2015).

In this extract, the commenter constructs the sheep as 'other'. As with the article, it is the colour which makes the difference, as well as the sheep being used for scientific research. Whilst the commenter claims there are differences between the 'Green Sheep' and normal sheep, these are downplayed. This is achieved through the reference to eating lamb and how there is no difference between 'Green Sheep' and normal sheep.

Whilst the monstrous is still visible here, with the mention of 'jellyfish protein', the commenter does not appear to be disgusted by the idea. Often it is the monster's lack of fit which provides repulsion, horror, disgust, and even wonder (Dixon 2008). This comment raises interesting questions. What happens when we accept the genetic manipulation of animals? What happens when we accept monstrous animals?

Non-traditional forms of science communication in the form of science fiction, can be found in the sociotechnical imaginaries of 'other' and monsters. Stories containing monsters can convey moral truths, enabling the audience to reject or embrace these moral truths, or to be inspired by them (Asma 2020). Inspiration taken from the *Frankenstein* story is illustrated in the below the line comments which follow, and these were in response to the news article concerning the pigs genetically modified to be resistant to African Swine Fever.

> Frankenpig in summer or winter; Frankenpig for lunch or dinner.
>
> Comment relating to the article, 'Could these piglets become Britain's first commercially viable GM animals?' (Devlin 2015).
>
> Frankenpig. Is anything safe from Dr. Frankenstein?
>
> Comment relating to the article, 'Could these piglets become Britain's first commercially viable GM animals?' (Devlin 2015).

Although both of these commenters make short statements, they are telling as they illustrate how cultural references are drawn upon in order to make sense of scientific issues. Both commenters claim the pigs in the news story are 'Frankenpigs'. The pigs are constructed as 'other' through the use of the Frankenstein metaphor.

Frankenstein is an important science fiction story, written by Mary Shelley, and first published in 1818. In the story, Frankenstein creates a monster from body parts and brings him to life using electricity. As these comments illustrate, the imagery of *Frankenstein* is still heavily drawn upon. Frankenpigs are monsters. Jon Turney provides a useful summary:

> […] we are never going to be rid of Frankenstein, even if we want to be. The story is too deeply embedded in our culture now not to leave its traces or raise echoes whenever we discuss our attitude to science and scientists. And as the products of biological manipulation become ubiquitous, there is every reason for the grip of the story to strengthen. (1998, 221)

For these commenters, genetically modified animals are analogous to Frankenstein's monster. The story of *Frankenstein* is 'one of scientific hubris, a quest for knowledge without consideration of human and social consequences, a disregard for individuals and their feelings' (Cook 2004, 98). There is the possibility that unforeseen problematic physical conditions in animals may arise from genetic modification. This idea is conveyed by the commenters.

Nature and Science

The sociotechnical imaginaries of nature in relation to genetically modified animals can be seen in the extracts which follow. The first part of this section examines the news articles.

News Articles

This extract is from a news article describing the research undertaken by the Roslin Institute, University of Edinburgh, in which pigs were modified to be resistant to the disease, African Swine Fever. The extract is from *The Times*.

> 'We need these animals to deliver something that could be a product,' he said. 'If these pigs show resilience, we will go the regulators. The limitations are no longer technical, they're legal.'
>
> 'Cloned little piggy heads to market' (Oliver Moody, *The Times*, 25 June 2015a).

This is a quote by Professor Bruce Whitelaw from the University of Edinburgh's Roslin Institute. The quote constructs the pigs as being in control of what is achieved with the experiment, with the onus of the experiment performing well placed on them. Although the discussion has moved on to the natural, the idea of 'otherness' still appears here. When animals are subjected to scientific experiments they are viewed as being 'other' (Adams 2018; Birke 1995; Halpin 1989). As Halpin (1989, 292) argues, the 'self versus other and the subject versus object dualities dictate that research animals will be regarded as lower (inferior) forms of life towards which the scientist need not feel any compassion or respect'. Nature can be manipulated because it is 'other'.

With the claim being made that the limitations are no longer technical, this indicates that the scientist constructs nature as something which can be overcome and conquered. Domesticated animals such as pigs, cattle, sheep and horses are biological beings manipulated through breeding by humans to serve humans (Russell 2004). With genetic modification, the process of obtaining the perfect breed is accelerated (Haraway 2018). However, an important caveat suggested by Susan Schrepfer (2004, 262), is that organisms 'have their own agendas, their own genetic options, and their own limitations. They are self-replicating'. We have to remember that humans are unable to completely control an organism. Nature cannot be completely overcome.

The manipulation of nature is also seen in the next extract which is from a news article which describes the research being undertaken with genetically modified cattle. Cattle were modified with a gene from a nematode worm in order to make the meat from the animals higher in omega-3 fatty acids.

> Genetically modified cattle whose beef is rich in omega-3 fatty acids more commonly found in fish have been created by scientists in China.
>
> The calves are the latest breakthrough in the controversial field of 'designer' livestock, as geneticists scramble for ways to boost the nutritional value of meat and improve public health.
>
> 'Scientists create GM cows high in fish oil' (Oliver Moody, *The Times*, 12 May 2015b).

In the article, the journalist constructs the cattle as one which has crossed boundaries with another species. This boundary crossing could never occur naturally and is only made possible by the work of scientists. For Donna Haraway (2018, 58), we should be asking what 'new beings, for whom, and out of whom' are being produced with genetic modification. This question is important for democracy, social and environmental justice, the environment, and agriculture surrounding new scientific developments in food production. With genetic modification, animals, plants and seeds become part of the bio-genetic economy, with companies able to profit from life itself (Braidotti 2019). Essentially, nature is exploited for profit.

The use of the term 'designer' livestock by the journalist indicates that nature can be improved by scientists. Genes which are the sources of biological diversity in technobiopower, are causing policymakers, venture capitalists, scientists and activists to scrabble and challenge for their control (Haraway 2018). Controlling genes means not only controlling the natural genetic diversity, but also the technology to create new beings. In this extract, the journalist states 'geneticists scramble'. This gives an urgency for the need for genetically modified animals.

The journalist also constructs the improvement of the quality of meat as being important for human health. Because the importance of meat-eating has been promoted by the agricultural industry, citizens often consider this aspect of their diet important for their own and their families' lives (Adams 2018; de Bakker and Dagevos 2012; Luke 1995). In this extract, genetic modification is presented as a technological solution to improving public health.

Environmental problems are also presented as being solvable through genetic modification. This is illustrated in the following extract which is also from the news article describing the research being undertaken with genetically modified cattle.

> In 2011 a Canadian project to breed an 'enviropig', a pig spliced with bacterial and mouse DNA that could digest phosphorus and therefore reduce the environmental damage of pig farming, collapsed after a suspicious reception from US regulators.
>
> 'Scientists create GM cows high in fish oil' (Moody 2015b).

In this extract, the journalist describes the reasoning behind the development of 'enviropig'. The coming together of three very different organisms is explained by the journalist to show genetic modification solving environmental problems. The answer to solving environmental damage caused by pig farming is not to think about farming in a different way, or even to stop

rearing pigs, instead a technological solution is developed. The manipulation of nature is the answer to solving the degradation of nature. Here, the degradation of nature is due to how animals are farmed. Factory farming or intensive production brings the factory automated assembly line to the farm, and is how most meat and dairy products are produced. It is more cost effective and profitable than producing food on a small, non-intensive farm. Over the past few decades, factory farming has increased whilst traditional, small, non-intensive farms have disappeared (Rowlands 2002; Standing 2019). Industrialisation becomes as much a biological process as a mechanical process (Russell 2004). Genetically modifying pigs further advances biological industrialisation because changes can be made at the cellular or subcellular level.

The final section examines how an animal, part of nature, is turned into the edible. This is the focus in the Below the Line Comments section.

Below the Line Comments

This comment was in response to the news article in *The Guardian* concerning the pigs genetically modified to be resistant to the disease, African Swine Fever.

> For all you meat eaters, bon apetit. nothing like glow in the dark frankenmeat to get the salivary glands pumpin'. as a vegetarian, i find the entire meat and slaughter industry an immoral hellhole. this makes me even more happy that i have abandoned the flesh plates for a nice, healthy does of organic greens...
>
> Comment relating to the article, 'Could these piglets become Britain's first commercially viable GM animals?' (Devlin 2015).

This commenter claims that the genetic modification of animals adds to the immorality of meat eating. Here, the use of the word 'meat' takes away the contact with the animal. When we talk about eating a product such as a burger, we say we are eating meat, not that we are eating a dead animal (Adams 2018).

There are different types of 'nature' at play in this comment. Firstly, with the commenter stating they 'have abandoned the flesh plates' there is the sense that eating meat is not natural. This ties in with why nature is considered 'good'. Guy Cook (2004, 103) argues that 'good' is founded on the 'perception of natural processes (in the sense of those which occur without human intervention) as predominantly life-giving and healing, reliable, and independent of human error and malice'. By eating animals, life is taken away, therefore going against nature (Adams 2018; Vance 1995). However, the suffering of farm animals is mostly invisible. Consumers of meat are not aware of how animals are reared in intensive production or how they are slaughtered and butchered (Adams 2015, 2018). Once animals are butchered, then there is a move away from nature. This is achieved through invisibility (Adams 2018). For Karen Morgan and Matthew Cole (2011, 118), the 'sterile supermarket packaging of dismembered animals deflects attention from whole animals, and euphemisms such as 'pork' or 'beef' rather than 'pig's flesh' or 'cow's flesh' are tactics which serve to conceal the origins of the meat being consumed'. Once life is taken away, nature no longer exists.

Secondly, the use of the term 'Frankenmeat' by the commenter draws attention to genetic modification being un-natural. Discussing dairy cows, Barbara Orland (2004, 184) explains that 'today's high-yielding cow came into being within a new culture of competition,

standardisation, performance control, selection, and predictability, forcing farmers and new institutions like breeding organisations to search for methods and technologies to improve milk yields'. Genetic modification of animals is an extension of these breeding practices. Bigger and better animals can be produced. However, these so-called improvements show how animals are treated as machines in modern, intensive production systems (Luke 1995).

This comment, though, illustrates a change. By stating they 'find the entire meat and slaughter industry an immoral hellhole', the commenter is making farm animals more visible. Animals and nature start to become less exploitable once visible. When people feel for animals, the 'self' versus 'other' duality breaks down and the interrelatedness between humans and animals exists (Halpin 1989). Boundaries between humans and animals are challenged.

Conclusion

This study set out to answer the question: Which sociotechnical imaginaries concerning genetically modified animals are present in UK online news articles and the associated below the line comments? In answering this question, the sociotechnical imaginaries of 'other' and monsters, along with nature, were identified.

The findings presented in this article are representative of this study only. The sociotechnical imaginaries present in the news articles depict genetically modified animals as 'other' in comparison to those bred through selective breeding (the conventional process). The news articles describe pigs with fluorescent snouts or trotters, and 'Green Sheep'. It is only through genetic modification that animals such as these can be brought into existence. These results would not be achieved through conventional breeding techniques. Genetic modification amplifies 'otherness'. The crossing of different species using genetic techniques also places animals into the category of monsters. Monstrosity also features in the below the line comments. Here, the sociotechnical imaginaries draw on the concept of 'other' along with Frankensteinian imagery. Animals are usually seen as 'having no individuality, no significant life-plan, no preferences, and, ultimately, no real concerns' (Vance 1995, 168). This renders animals as invisible. The construction of genetically modified animals as 'other' removes the veil of invisibility. Difference makes genetically modified animals noteworthy.

Nature also features in the sociotechnical imaginaries in the news articles. Journalists present genetic modification as overcoming nature, as well as scientists designing nature. Genetic modification is also presented as a scientific solution for environmental problems. The sociotechnical imaginary in the final comment focuses on turning nature into the edible, and the act of eating meat. Once animals are butchered and are turned into meat, there is a move away from nature. This is achieved through invisibility (Adams 2018).

The final comment illustrates that animals can be made more visible. Removing invisibility means boundaries can begin to be broken down. Challenging boundaries can lead to better understandings. If the 'social, the natural, the scientific, the technological, the human, the non-human – are seen to be fluid and contextually constituted rather than predetermined' (Irwin 2001, 178), this opens up the potential for more diverse approaches of imaginings. This gives rise to creative potential (Jasanoff 2015b) and could enable a reimagined relationship between humans and animals.

Sociotechnical imaginaries enable individuals to make sense of what is happening in the world around them. As stated in the Methods section, the views of those commenting are seen as being representative for this study and may not be characteristic of the population as a whole. Neither do I wish to claim that the comments posted reflect the opinions of the audience as a whole. It is important to note that those who posted comments may be particularly interested in the subject of genetically modified food or animals. Interviewing those who comment would provide reflections on the motivations for posting content about genetically modified animals. In order to understand how journalists write these articles and the approaches they take in obtaining stories, it would be necessary to interview them. This research could also potentially ascertain how journalists decide to portray genetically modified animals in news stories.

As I have shown, sociotechnical imaginaries act as a 'form of intensely political narration, reminding both observers and observed that the seen reality is not the only one about which we can dream' (Jasanoff 2015b, 340). In this article, depictions of 'other', monsters and manipulated nature are all part of the construction of imaginaries of genetically modified animals. Where animals are usually invisible, here sociotechnical imaginaries bring them to the fore.

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Animal Representation on UK Children's Television

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ABSTRACT

It is widely accepted that television is a powerful medium and that its influence, particularly on children and young people, can be profound (see for example Canadian Paediatric Society 2003; Strasburger 2004; Matyjas 2015). The representation and categorisation of non-humans in such content may therefore influence a culture's attitudes towards those species and, by extension, its children's views. This article investigates animal characters on three hundred and fourteen children's TV shows across five days of 'free' to view UK programming during summer 2020, and is the first study in over twenty-five years (since Elizabeth Paul's in 1996) to focus specifically on mainstream children's TV, and the only one to have sole regard for pre- and early primary-age UK viewers. With research clear that the media is so influential, recognising the role of such culture transmission is vital to 'undo' unhelpful assumptions about animals that result in their exploitation, and change future norms (Joy 2009). Television media either ignores or misrepresents the subjective reality of many (particularly food) species, but with children preferring anthropomorphised animals to most others (Geerdts, Van de Walle and LoBue 2016), this carries implications in terms of responsibility for our ideas and subsequent treatment of those non-humans in everyday life.

KEYWORDS

Animals, Children's Television, Representation, Characters, Anthropomorphic

Introduction

It surely escapes no-one's attention that a huge number of characters in children's animations are non-human animals of one species or another. Whether *Peppa Pig* or *Peter Rabbit*, the animality of these creature characters is clear, at least in general two-dimensional form. However, a huge volume of consumers of these children's animal characters are also consumers of animal flesh. This paradox is an oddity that seems to lose no power with the passage of time (see Bowd 1982). Why does the UK say it is an animal-loving nation at the same time as eating millions of them every year? Why are there parliamentary calls to ban the consumption of dog meat (Ares and Sutherland 2019) but not meat from cows or chickens? Why do so many caregivers of *Peppa Pig* fans feed them ham, bacon or sausages? The answers are multiple, but simple. We are raised from childhood to categorise some species as edible, others wearable, others companionable (Joy 2009). Anthropomorphism in representations of animals to children through mass media distorts the reality of a species and contributes to inaccurate beliefs (Grasso et al. 2020), particularly in animation, where boundaries are further blurred to maintain children's empathetic connections with the characters (Wells 2010). Add to this our penchant for denialism (Almiron 2020) even when the species is explicitly claimed as edible, and it is easier to strategically ignore the horrors of animal death and carcass processing, purchase shrink-wrapped body parts and maintain a blissfully ignorant status quo.

This article highlights examples of these animal categorisations and (mis)representations as evidence of the transmission of such norm maintenance presented to children through TV programmes, their characters and storylines.

I should note in advance my employment of the terms 'animals', 'non-humans' and similar, used interchangeably throughout this piece, with 'animals' used most frequently due to its accessibility. This should not be taken to indicate any anthropodenial (Mills 2017) - that is, a failure to acknowledge humans as animals, nor animals as persons.

British Children's Television

My childhood Saturday evenings were spent either at home or at my grandparents', and were always 'family time'. Sitting with my sister and the rest of the family in the living room with our supper, watching whatever show was that season's highlight of family entertainment on BBC One, BBC Two or ITV - the only three channels available in the UK at that time. Despite the multitude of alternative media on offer now, it is still the case that many families sit together for a collective live TV entertainment experience at this time of the week (Cole and Stewart 2018). These days, instead of the Eighties favourite *The Cannon and Ball Show,* it might be the latest instalment of *Strictly Come Dancing*, *The Masked Singer* or a long-running family quiz show such as *Family Fortunes*. Live TV channels remain more popular and well-known than others in the UK, though streaming service Netflix does make the top five providers, alongside BBC One and ITV, with Channel 4 in first place (YouGov 2018). For children today, it may be inconceivable to imagine a time with only a few terrestrial TV channels, when recording something required a VHS machine and clunky cassettes, and when live streams related only to running water. But as far back as 1946 and *Children's Hour* star Muffin the Mule (BBC 2021a), TV has always sought to capture children's imagination, and animals have often been the way to do so.

By the 1990s, animals took up significant airtime in children's television programming, though these were part of a daily children's schedule rather than dedicated channels in and of themselves. Now in the 2020s, children's programming remains thus in some instances (Channel 5's Milkshake!, for example), but the addition of full channels devoted to children means they have more choice than ever before. Add to this the availability of online media for children, and the array can feel overwhelming for those of us who recall three-channel TV, and who were seldom given charge of the choice of viewing.

It wasn't until the mid- to late-2000s that use of the Internet was widespread, or that handheld digital devices such as tablets were found in the UK's 'basket of goods' (a measurement of an item's widespread popularity from the Consumer Price Index (CPI) until 2012 (Office of National Statistics 2016)). Though children's access to media is changing (Childwise 2020), significant numbers still watch live television regularly, particularly pre-schoolers, though this has declined as technology has advanced. For example, CBeebies' 0–3-year-old audience has dropped 16% to 40% in the last decade, reaching 37% of 4-6-year-olds compared to 45% in 2010 (Ofcom 2020). However, many of the alternative means of accessing television are simply video links to programmes already shown on the live television channels, for example through

BBC iPlayer streaming or the four CBeebies apps (Ofcom 2019). Whilst CBeebies has been the most popular dedicated television station for younger children up to six years old (Children's Media Foundation 2013), many prefer to watch programmes 'on demand' (Ofcom 2019).

Categorisation of animals into subject/object and edible/inedible takes place in the socialisation process (Stewart and Cole 2009), where social norms are instilled in toddlers before they are cognitively able to logically question them. The normative values associated with different species result in what we are taught to know, or not know, about them, and thereafter feeds directly into beliefs about what certain animals are 'for' (Joy 2009).

Whilst there already exist many comprehensive studies into cultural media representations of the non-human in books, movies or on television (see for example Molloy 2011; Ratelle 2015; Geerdts, Van de Walle and LoBue 2016; Mills 2017; Cole and Stewart 2018 and Stanton 2021), little research since Paul (1996) concentrates fully on the representation of non-humans on mainstream UK children's television. As already detailed, television was very different a quarter of a century ago, but animals are no less popular as characters.

Referring to the regular offerings of Channel 5's pre-school schedule Milkshake!, BBC's dedicated CBeebies channel, and Sony's POP channel, one can clearly see animals featuring heavily in these schedules. Few would take issue with a claim that children love animals; the city farm visits and soft toy collections of many a youngster would confirm this. However, it is also the case that the majority of children also eat animals (Shennan 2019) – an example of the now well-known concept, the 'Meat Paradox' (Loughnan, Bastian and Puvia 2012). Having extended this to species-specific 'fandom-feastdom', the 'Peppa Pig Paradox' (Korimboccus 2020), is an example of one species adorning the lunchboxes of young children whilst at the same time being contained within those lunchboxes, and shows the strength of this disconnect. *Peppa Pig* is one of the most popular UK children's television characters (Clement 2020), and yet food products made from pigs are the most widely-consumed in the world, the most popular red meat in the UK, and the UK's second favourite meat overall (Ritchie and Roser 2019; Shahbandeh, 2021). Children feel connected to Peppa, but remain disconnected from the source of their food (Korimboccus 2020).

The maintenance of this dissociation relies heavily on everyday discourse regarding animals. Whether identified as food, pets, wildlife or for entertainment such as zoos or circuses, TV reinforces these normative categories through stereotypical representation of animals in TV shows. Food animals, despite making up 60% of mammals and 70% of birds on our planet (Bar-On, Phillips and Milo 2018), are seldom seen in real life, and the samples in both this and Paul's (1996) study reflect that invisibility. Analysis of series featuring non-human animals as either the title or main characters provides evidence of the reinforcement of these social norms. From *Peter Rabbit* and *Ferne and Rory's Vet Tales* (CBeebies) to POP's *Grizzy and the Lemmings* and *44 Cats*, it is clear that society and its structures are set up in a particularly speciesist way. Channels aimed at slightly older children, such as CBBC, tend to feature human characters and real human beings more heavily and non-human animals much less, and so are excluded from this analysis.

Well-'kent' Characters

Favourite characters change with time, but some stand up to this test, such as Disney favourites Mickey and Minnie Mouse, now in their nineties, and in the UK most notably *Peppa Pig,* aired now for seventeen years. In reality, pigs raised for slaughter seldom make it past six months of age (Hoar and Angelos no date). Interestingly, many well-known characters are not of the species most associated with childhood companion relationships, such as dogs. Instead, they tend to be 'wild' species (such as Bugs Bunny or Donald Duck), or 'food' species (such as Miss Piggy), neither of which children are likely to have developed significant real relationships with. This, though, creates contradictory belief systems from early life. Kermit the Frog is a loved character, while real frogs are seldom-seen, at least by urban children. Shaun the Sheep seems smart enough to attempt to alleviate more than a decade of boredom (though not enough to escape the farm) while real lambs and sheep have their fate sealed within only a few months or years. It is little wonder that children do not make associations with animal use other than that imagined by and instilled through animated animal characters. In this way, the reality of 'meat' need never be addressed.

Figure 1. 'Representation of a speciesist material and discursive positioning of animals'.
A simple illustration of the categorisation of animals children learn from their surroundings. Human animals afforded full subjective sensibility are found in the north-west zone, while the south-eastern area is referred to as the 'killing zone' and is the location of animal individuals seldom seen.
(Source: Stewart and Cole 2009; Cole and Stewart 2018). Reproduced with permission.

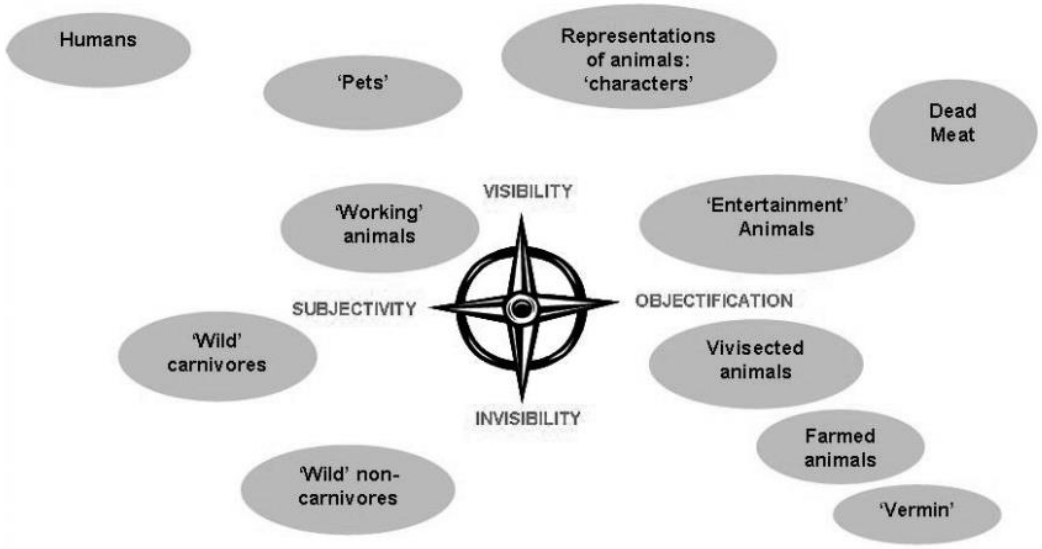


FIGURE 1: Representation of a speciesist material and discursive positioning of animals

The reinforcement of these categories by mainstream media serves only to maintain normative discourse regarding the species involved. Whichever category a species finds itself in, however, all indicate the commodification of non-humans for one sort of human gain or another. Representations of animals as 'characters' are visible through the media, though often in an objectified way, as illustrated in Figure 1. Animal characters made up around one third of British Animation Awards finalist nominations in 2020, such is their prevalence and popularity (British Animation Awards 2020). Despite the UK's claim to love animals however, only those categorised as 'pets', or 'working' species - for example. dogs used to assist humans, horses raced for money - are regarded in any similar way to ourselves in everyday discourse.

Methodology and Procedure

To establish the frequency with which different categories of species are characterised through children's TV programming, a total of three hundred and fourteen programmes within five different schedules on three different days between 1 July and 17 August 2020 were considered.

Only mainstream non-subscription channels available throughout the United Kingdom were included – i.e., those available on free-to-view digital television, such as Freeview. This ensures the minimisation of socio-economic factors, where more wealthy families may be more likely to have individual subscriptions such as Disney+ or digital entertainment packages which include channels such as Disney Junior and Nickelodeon. Tiny Pop, the UK home of shows such as *My Little Pony* and *Masha and the Bear*, is also excluded as, although available on Freeview in major UK cities and their immediate surroundings, has been unavailable to most other UK locations since March 2017.

Other children's free-to-view channels such as BBC's CBBC and ITV's CITV have schedules aimed at older children, in some cases up to late teens, and overwhelmingly feature human characters, and live action rather than animation. As such, I chose to exclude these from analysis. However, some up-to-date work here would be of benefit, particularly an investigation into how and where mainstream ideology of animal use is reinforced through older children's programming.

Each date has its own numerical reference:

1. BBC CBeebies – Wednesday 1 July 2020
2. Channel 5 Milkshake! – Tuesday 11 August 2020
3. BBC CBeebies – Tuesday 11 August 2020
4. POP – Monday 17 August 2020
5. BBC CBeebies – Monday 17 August 2020

It should be noted that regional variations were not factored in as these seldom occur for the selected channels, unlike BBC and ITV's regional programming (e.g., BBC Scotland and Scottish Television (STV)).

In all, these three channels and five dates represented 66.25 hours of broadcasting. POP was the only channel transmitted twenty-four hours a day.

BBC's CBeebies channel was included most often as it remains the most popular children's channel, despite much competition (Children's Media Foundation 2013; BAFTA 2019).

Animals in Focus

The categories of animals chosen were the most commonly represented: 'food/farm(ed)', 'pet/domesticated', and 'wild/wildlife' according to common UK utilisation of the species, and presented using the most accessible terminology for the lay reader, despite this language being somewhat speciesist.

Although focus was on lead/title characters, attention was paid to supporting characters, where relevant.

Examples of each of these categories are:

Food/Farm(ed)	**Pet/Domesticated**	**Wild/Wildlife**
Pig	Dog	Rabbit
Cow	Cat	Horse
Sheep	Rabbit	Bear
Chicken	Fish	Fish
Fish	Hamster	Duck

Some overlap is noted as many species meet two or more categories in terms of eligibility; for example, horses in domesticated *and* wild settings. It is observed that some non-human species may fit any one of the categories. For example, fish could be categorised as either food/farmed, pet *or* wild. An additional category of 'mixed' was added, where the species of two or more main characters related to different categories. Whilst several characters may also be categorised as 'entertainment' (species only visible to UK children in zoos or aquaria, for example), I retained these in the 'wild/wildlife' category as none of the programmes aired made reference to this. It should be noted, however, that past programming of CBeebies includes *64 Zoo Lane*, a series relaying the evening bedtime ritual of a seven-year-old girl named Lucy who lives next to a zoo. Lucy slides down the neck of a giraffe every evening at bedtime and relies on the animals in the zoo to tell her a story, usually reminiscing about their 'wild' days, to help her get to sleep. The implication here - that these animals have been removed from the wild to become captive in an urban zoo - would likely be lost on young viewers, and perhaps even older ones. In any case, the animals make no reference to their captivity, and their presence is normalised by zoological 'collections' country-wide (Freedom for Animals no date).

Coding of the three hundred and fourteen programmes was conducted thus:

1 Programme title/lead role:
   a. Non-human animal (NHA)
   b. Human animal – non-human animal content (programme theme or storyline)

c. Human animal – human animal content only, non-human animals minor/absent
d. Other (example, monsters, dragons or other fictional beings)

2 Title/lead character species category for 1(a) and 1(b):
a. NHA Food
b. NHA Pet
c. NHA Wild
d. Mixed NHAs
e. Human, but relevant animal-related content

3 Anthropomorphic traits evident in NHA characters:
a. Dress (human clothing/accessories evident)
b. Express (human facial expressions/body language evident)
c. Talk (human language as communication evident)
d. No anthropomorphic traits

Analysis was thereafter conducted on all categories other than 1(c) and (d), where human animals were the title/lead character in a programme, and the programme dealt mainly with human issues and characters. Individual programmes were included where a relevant socially normative message was expressed to the viewer through the programme's theme or its storyline - for example, children's cookery programme *My World Kitchen*. However, a programme where an animal was present, but in a very minor role (as a pet, for instance), was excluded.

In the interests of time, space and focus, commercial breaks were not analysed, though the marketing of animal-themed toys is commonplace, and arguably even relentless, as is the model of these species being normalised as resources for human utilisation – for example, *VIP Pets*.

Data and Discussion

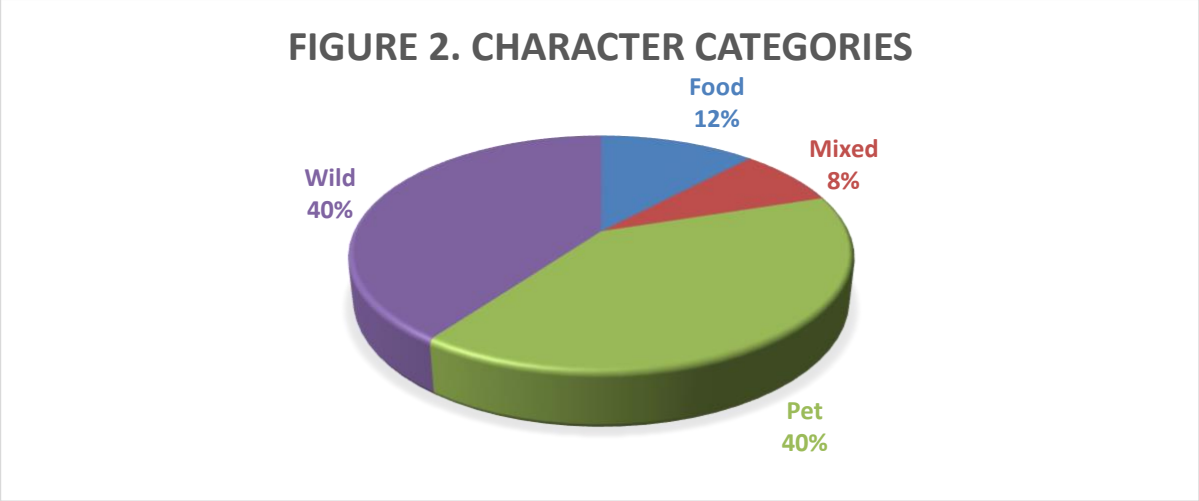
Table 1 shows just that over four in every ten shows (41.7%) of daily programming featured title/lead character animals, with a further 10% having transmitted more minor animal characters or animal-related content, accounting for more than half overall, or 51%. Paul (1996) found animals a major focus of 62% of terrestrial programming for children, though one fifth of her sample was aimed at older children aged 12-16.

BBC's CBeebies channel consistently fills one third of its schedule with main animal characters, whereas Milkshake! and POP broadcast more than half a schedule of lead animal shows. However, CBeebies broadcasted a lot of other animal-themed content (12.7% on average) whereas POP and Milkshake! add only 2.2% and 9.5% respectively. Animal-themed content here is defined as pertaining to or including animals in some way but without an animal in the title or lead role.

Table 1. Numbers of shows with title/lead animal characters; number of shows with other title/lead characters but with animals as significant supporting cast or as the show topic; and combined totals.

Ref.	Channel	Date	Title/lead animal shows	%	Other relevant shows	%	Total animal shows and % schedule
1	CBeebies	Wed 1 Jul 2020	23/68	**33.8**	10/68	14.7	**33/68 48%**
2	Channel 5 Milkshake!	Tue 11 Aug 2020	11/21	**52.4**	2/21	9.5	**13/21 62%**
3	CBeebies	Tue 11 Aug 2020	23/68	**33.8**	8/68	11.7	**31/68 45%**
4	POP	Mon 17 Aug 2020	51/90	**56.7**	2/90	2.2	**53/90 59%**
5	CBeebies	Mon 17 Aug 2020	23/67	**34.3**	8/67	11.9	**31/67 46%**
	(All)	**(All)**	**131/314**	**41.7**	**30/314**	**9.5**	**161/314 51%**

Figure 2. Category of lead character species across main animal shows sample (repeated shows counted only once).



As is evident from Figure 2 above, and in line with Paul's (1996) findings, animals generally farmed for food appeared as lead characters less frequently than others at only 12%, despite being the most numerous on Earth (65% of all mammals and birds (Bar-On, Phillips and Milo 2018)). The most common species adopted as main/title characters in children's programming were either 'pets' or wildlife, with each at 40% of the sample. Paul suggested this absence of mammals, particularly as 'meat', to be 'an expression of adult society's discomfort with the paradox of advocating kindness to animals (especially mammals) on one hand, but the acceptability of meat eating on the other' (1996,169). No programmes in either this or Paul's studies demonstrate the process by which animals are made into human food, nor an acknowledgement of their human utilisation.

Table 2 below focuses on characters appearing three or more times a day with a short description of the show and its main characters to summarise the content. Multiple episodes are more prevalent in the twenty-four-hour programming of POP (where not one animal related show aired only once) than the thirteen-hour schedule of CBeebies or the three hours or so of Milkshake! on Channel 5. These are significant, as repeat exposure becomes more likely, further reinforcing the characterisation of the animal to the young viewer and any anthropomorphism presented.

Table 2. Animated animal TV shows broadcasting three or more episodes per day with a short description of the show.

Programme	**Short description**
44 Cats	Four kittens who make up the band 'The Buffycats' - Lampo (lead singer/guitarist), Milady (bass player), Pilou (drummer), Meatball (keyboard player). They are regularly bullied by tomcat Boss and his associates.
Alvin and the Chipmunks	Home and school antics of famous musical chipmunk trio, Alvin, Simon and Theodore, and life with David Seville and neighbours (and fellow entertainers) the Chipettes.
Bing	Bing is a young bunny spending time with his other animal friends (including fellow rabbit Coco and panda Pando) and carer, Flop, also an animal of indistinguishable species origin.
Grizzy and the Lemmings	Grizzy lives in an abandoned national park ranger cabin with a group of lemmings in competition for the cabin and its food, especially chocolate spread. Lots of slapstick comedy ensues as they play physical pranks on each other. One of the few programmes where no words are spoken.
Hey Duggee	Duggee is an adult dog, a scout leader of sorts for the 'Squirrels', a selection of various young animals - Betty the octopus, Norrie the mouse, Roly the

	hippo, Tag the rhino and Happy the crocodile, as well as Enid the cat and other supporting cast.
Peppa Pig	Young female Peppa and her family - Mummy, Daddy and little brother George. Repeat support characters include Suzy Sheep, Danny Dog, Rebecca Rabbit, Zoe Zebra and Pedro Pony. Peppa plays and learns about the world with family and friends.
Talking Tom and Friends	Tom and various cat and dog friends work as inventors and adventure together in and around Tom and Hank's garage.
Timmy Time	Timmy is a young lamb attending nursery school with other animal species friends, especially best friend Yabba (a duck), and including Paxton (pig), Ruffy (dog), Mittens (cat), Stripey (badger) and Apricot (hedgehog). Their teachers are Harriet (a heron) and Osbourne (owl).

Table 2 records that an astounding nineteen separate episodes of *Alvin and the Chipmunks* were shown on one day, closely followed by *Talking Tom and Friends* at sixteen episodes. Many of these ran back-to-back with four or even five transmitted in a row. This is common practice on the POP channel. Chipmunks are rarely kept in domesticated settings in the UK, therefore it is unlikely that most children will have interacted with a real one. In any case, since 2016, it has been illegal to buy or sell a chipmunk anywhere within the European Union due to their inclusion on the 'Invasive Alien Species of Union Concern' list (RSPCA 2021). Nonetheless, Alvin and his brothers have been present in the lives of children for more than sixty years, where in reality they would be lucky to live to the age of ten, would live in the forest and hibernate each winter (Di Silvestro 2011). As with other anthropomorphised species, little of the reality of chipmunk life is evident in their characterisation on children's television.

Table 3 outlines the main character(s), their species, and species categories of all shows airing more than once per day (including those from Table 2). Most of the highest frequency programmes are shown on POP. Only one show (*Waffle the Wonder Dog*) features a real animal and real humans rather than animations.

Table 3. Shows with main animal characters appearing more than once per day, by frequency.

Ref.	**Prog.**	**Freq.**	**Title/lead character(s)**	**Character species**	**Species category**
4	*Alvin and the Chipmunks*	19	Alvin, Chipmunks	Chipmunk	Wild
4	*Talking Tom and Friends*	16	Tom, Friends	Cat, Cat/Dog	Pet
4	*Grizzy and the Lemmings*	9	Grizzy, Lemmings	Bear, Lemming	Wild
2	*Peppa Pig*	6	Peppa	Pig	Food
1, 3, 5	*Bing*	4	Bing	Rabbit	Pet
1, 3, 5	*Hey Duggee*	4	Duggee	Dog	Pet
4	*44 Cats*	3	Cats	Cat	Pet
1, 3, 5	*Timmy Time*	3	Timmy	Sheep	Food
2	*Paw Patrol*	2	Chase, Rubble, Rocky, Zuma, Skye	Dogs	Pet
1, 3, 5	*Peter Rabbit*	2	Peter, Lily, Benjamin, Mr Tod, Old Brown, Tommy Brock	Rabbits, Fox, Owl, Badger	Wild
1, 3, 5	*Sarah and Duck*	2	Duck	Duck	Wild
4	*Sonic Boom*	2	Sonic	Hedgehog	Wild
4	*Space Chickens in Space*	2	Space Chickens	Chickens	Food
1, 3, 5	*Waffle the Wonder Dog*	2	Waffle	Dog	Pet

Table 4. Shows appearing only once per day, including short programme description.

Ref.	Programme	Character species	Species category*	Short description
1,3,5	*Dog Loves Books*	Dog	Pet	Dog loves books, mostly because of their stories. He and his friend Pug are transported into a different story each episode.
1,3,5	*Ferne and Rory's Vet Tales*	Any/all	Pet	Humans Ferne Corrigan and Rory Crawford are 'animal experts' who help children learn what keeping animals entails and how veterinarians can help if the animal is sick. (the same two presenters also host another show entitled *My Pet and Me*). The first of only two shows to feature real rather than animated animal characters.
1,3,5	*Kit and Pup*	Cat/dog	Pet	Kitten and puppy, 'Kit' and 'Pup' learn about the world around them. Aimed at pre-schoolers.
1,3,5	*Octonauts*	Various sea, cat, rabbit, dog	Wild/Pet	Led by 'Captain Barnacles' (a polar bear), the underwater explorer crew consists of Kwazii the cat, Peso the penguin, Professor Inkling the octopus, Dr Shellington the sea otter, Tweak the rabbit, Dashi the dog and half-tuna, half turnip 'Tunip'. They regularly rescue sea creatures in need, as well as occasional *Creature Reports*, one-minute musical shorts containing facts about the species rescued and their habitat.
1,3,5	*Patchwork Pals*	Any/all	Any/all	Dozens of different species each live on a square of a patchwork blanket and each episode features a different square. A young girl's voice interacts with them as they work through a problem with the help of surrounding patch animals.

1,3,5	*Raa Raa the Noisy Lion*	Lion and others	Wild	Raa Raa and his friends (Topsy the giraffe, Zebby the zebra, Hufty the elephant, Ooo Ooo the chimpanzee, Crocky the crocodile, Pia the parrot and Scuttle the spider) all live in the *Jingly Jangly Jungle.*
1,3,5	*Tee and Mo*	Monkey	Wild	Mo and Tee are monkey mother and three-year-old son, respectively. They have a lot of fun together, though Tee is a little mischievous.
1,3,5	*Tinga Tinga Tales*	Various	Wild	Now more than a decade old, and based on traditional African animal tales and Tanzanian art, each episode is narrated by 'Red Monkey' and relays animal folk tales such as *Why Buffalo has Horns* and *Why Jackal Howls at the Moon.* Regular characters include Elephant, Lion, Hippo and Tortoise.
2	*Milkshake! Monkey's Amazing Adventures*	Monkey	Wild	Puppet character 'Milkshake Monkey' both features in his own shows and as a Milkshake presenter. He was also to be the main focus of the 2020 Milkshake Live touring stage show *Milkshake Monkey's Musical*. He, of course, loves bananas.
2	*Secret Life of Puppies*	Dog	Pet	Documentary series on life from the perspective of various individuals or litters of puppies. Only the second show to feature real rather than animated characters.
2	*Sunny Bunnies*	Rabbit	Wild	Turbo, Big Boo, Iris, Shiny and Hopper live on the sun. With a secret door to Earth, they bring anywhere where there is light to life with fun antics and play.

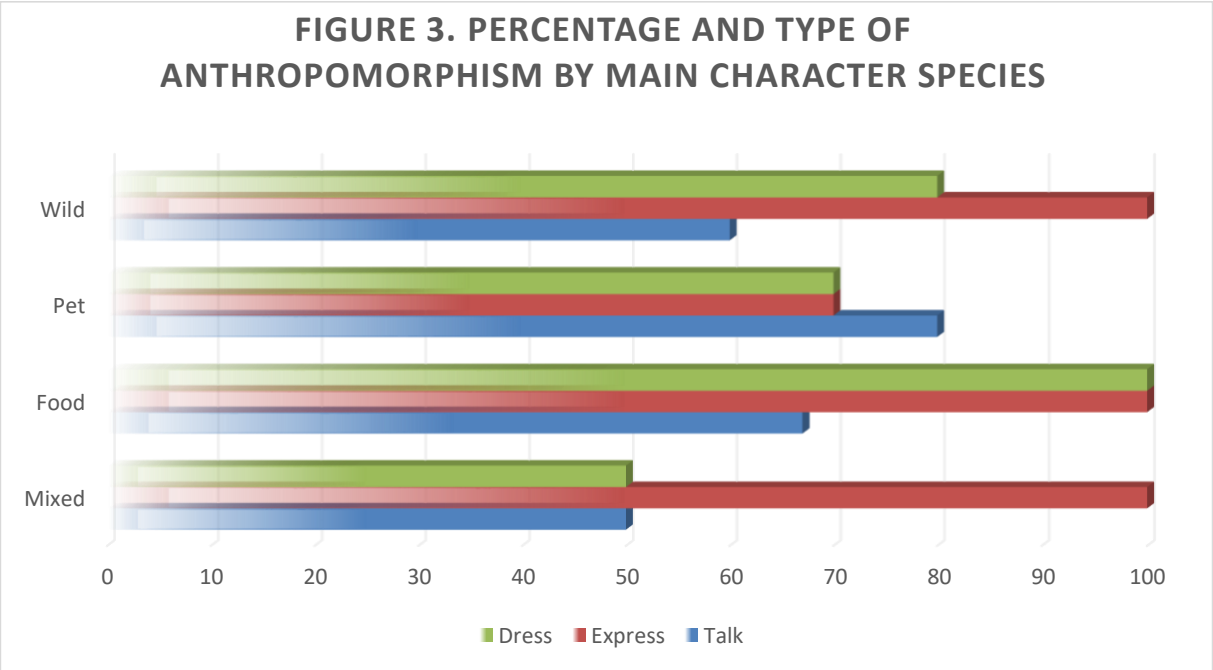
Appearing only once per day renders the significance of representation no less important. Table 4 above illustrates the eleven once-only shows of the sample where animals were the main and/or title characters. As with Table 3, only one show features real animals (*Secret Life of Puppies).* This may be due to the majority of young children's programming being fictional in nature. However, it has been argued that children of the target age for these programmes are unable to fully differentiate between reality and fiction (Grasso et al. 2020), so this suggests a real lack of appropriate and realistic representation, compounding already unrealistic characterisations.

Anthropomorphosis

In almost all cases, perhaps due to the sheer volume of fiction and particularly animation on offer, anthropomorphic characterisations are rife. In one of the only two cases where real dogs are lead characters *(Waffle the Wonder Dog)*, a hoarse human voice is dubbed over his scenes to imply he is saying the words, albeit singular toddler words (however, in highlighting this, I am not necessarily suggesting a complete lack of human-centred communication ability in dogs).

To illustrate how commonplace anthropomorphic animals are in young children's TV, Figure 3 provides a breakdown of the tendency to afford human-like qualities to main animal characters, predominantly through their animation. Anthropomorphism is measured as 'Dress' (where human clothing or accessories are worn), 'Express' (where the characters express themselves in a human-like manner using facial expressions or body language), or 'Talk' (where human speech using English words is how the characters communicate).

Figure 3. Level of anthropomorphism evident in lead character species across whole main animal shows sample (repeated shows counted only once).



Note in Figure 3 that *all* main characters, except for those in the 'Pet' category, were afforded human expression, whether through facial expression, body language or both. Perhaps as surprisingly, only the 'Food' category applied human clothing or accessories to all its programmed species, though it is worth remembering (see Figure 2) that these characters were only 12% of the total sample. Speaking the same language happened both *between* as well as *within* species, so that all communicated with each other in the same way. The 'Pet' programmes with no anthropomorphic attribution were the documentary-style programmes *Ferne and Rory's Vet Tales* and *Secret Life of Puppies.* However, in both cases, the presenters afford human-like feelings and thoughts to the animals featured on the show through their narration, and at no point address the ethics involved in pet-keeping or breeding. According to Claire Parkinson, 'sites of commodification are those that are in service to capitalism where anthropomorphism is appropriated as a strategy to engage humans as customers with the "product" rather than the animal themselves' (2019, 14). Television provides a vehicle through which this disengagement is possible.

The use of the term 'anthropomorphism' can cause controversy, motivated by a fear that it may contribute to the breakdown of the socially normative 'food chain' hierarchy (Mills 2017) - but rightly so, when said hierarchy results in the oppression and exploitation of billions of animals. In any case, there may be value in the employment of human-like qualities to relay moral messages to children and provide an interaction, albeit two-dimensional, with species that would otherwise be impossible (Wells 2009; Geerdts, Van de Walle and LoBue 2016). However, these representations are often biased - for example, the fox and the badger in *Peter Rabbit* are characterised as 'baddies', and all, Peter included, are considered a 'pest' species by the human farmer. Foxes and badgers are recognisable symbols of British wildlife that adorn many a countryside calendar. At the same time, both species are often persecuted in the UK, including the ongoing murder of badgers in an attempt to deal with tuberculosis in farmed cows, or the gentrified practice of hunting foxes (though legally this can no longer be enacted using packs of dogs (League Against Cruel Sports 2021)). Norms and biases such as these are enough to maintain confusion, and not just in children.

Why, then, are most animal character animations anthropomorphic? Why use animals and not simply people? Or, if necessarily animals, why not more realistic representations of them? There are various often competing ideas about this phenomenon, including:

- Quite simply, humans, including children, are 'biologically wired' to sympathise with animals, therefore they are appropriate story characters.
- They are part of human language, thinking and story-telling – whether metaphorical or symbolic as replacement human caricature.

(Adapted from Coyne 2012)

It seems, then, that animals may be used predominantly to tell human stories, as few, if any, true-to-life representations of any species are made available, particularly not of those most likely to be in a child's life as either friend or food. Even then, wild mammals make up only 4% of species on earth (Bar-On, Phillips and Milo 2018) yet are one of the two most frequently utilised categories of animals on children's television, allowing suitable distance from reality

to be maintained. Using animals rather than people also avoids any possibility of under- or over-representation of a particular human characteristic such as sex, ethnicity or disability, though some academics have challenged this view, believing that different species can still be reflective of the inequalities in human society (see for example Stanton 2021).

Where animals do not speak words, for example in *Grizzy and the Lemmings*, stereotypes are further exaggerated. Lemmings are depicted as stupid and suicidal. Humans describing other humans as 'lemmings' is a pejorative expression that suggests people incapable of independent thinking and who unquestioningly follow others. Such human-is-animal metaphors are normative, reflective of the view of each non-human animal species to the dominant social group of the human animal (Goatly 2006) - and they are often scornful.

Supporting Actors

The other shows included in Table 1 with no main animal character, but with animals as significant or in a supporting role, numbered sixteen. Several were insignificant to this study in that animals were featured, but were often extinct, as in the case of education-based real-life-meets-CGI *Andy's Prehistoric Adventures* or the simpler entertainment cartoons *School of Roars* or *Kiri and Lou.* Others are whimsical – for example, *My Petsaurus*, featuring a seven-year-old human, Chloe, and her troublesome triceratops, Topsy. The remaining shows were analysed more thematically to help illustrate the norms relayed to children through programme content.

Wild and Wonderful?

Andy Day is CBeebies' longest-serving presenter and star of many animal-based series. In *Aquatic Adventures*, Andy helps viewers learn about species living in or near water, meeting them 'first-hand' through magical vehicles like his 'Safari Sub'. *Andy's Safari Adventures* is filmed at The Eden Project in Cornwall in the fictional 'Safari World', and *Andy's Dinosaur Adventures*, set in a natural history museum, sees him able to time-travel to different prehistoric periods through an old museum grandfather clock. Whilst the educational value regarding featured animals in these shows is significant, a subliminal message of the *Safari Adventures* show may be that safari parks and other zoological 'collections' are positive and normal, designed to conserve and protect. In reality, a minority of captive species are endangered, and even fewer reintroduced into the wild (Born Free Foundation 2007; Freedom for Animals no date).

Wild animals also featured in all three CBeebies *Bedtime Stories* in the sample, books often read aloud by celebrities just before the schedule closes at 7pm. These were *Leaf the Lost Polar Bear*, *The Busy Beaver* and *The Storm Bear*. A quick survey of my own daughter's bookshelves likewise finds few human characters and a vast majority of non-human, 'cutified' ones (Cole and Stewart 2014). It is difficult to know whether this 'cutification' is a result *of* children's love of animals, or a contributor *to* such fondness.

Farm-Food-Fork Features

Each spring, CBeebies broadcasts a new weekly series , *Down on the Farm*, in which presenters help viewers to see what happens on farms, from livestock to harvesting, as well as where food comes from and how it's grown' (*Down on the Farm* 2021). Each episode features some outdoor learning but also live (usually farmed) animals, including Fell ponies, Highland cows, deer, donkeys and pregnant sheep, as well as cheese and other animal product manufacture. That this is one of the few programmes to feature real animals, in real settings, being handled by real people for what it is deemed they are really 'for' may more readily capture attention. In *Let's Go for a Walk*, human Ranger Hamza and different children each episode (the 'Ramblers') go for a walk and learn about their surroundings, playing games along the way. During the episode 'Ponies and Pumpkins Walk', they head to the countryside and on the way, visit one of the Ranger's friend's farms, where they interact with Shetland ponies, chickens and goats with ear tags. 'The tag tells us what farm the animals belong to', says the narrator. That non-humans are considered objects of property in law is one of the key difficulties in enabling their liberation (Francione 1995).

These representations are those of the meat-eating majority. It is difficult to know at which point, if ever, children genuinely make a connection between an animal on such a show and the piece of one on their plate, particularly when 'products of violence are culturally appropriate for children but not the violence itself' (Cole and Stewart 2018, 102). Animals are presented while still alive, their purpose to humans stated – for example, 'cows give us milk/beef/leather'. Dead animals are presented as final product in other programmes. On the regular show *My World Kitchen*, different dishes from around the world are cooked by a child and presented to their friends at a culturally-themed lunch table, such as Series 2 Episode 12, 'Vietnamese Pork and Prawn Cha'. Rarely are the dishes completely animal-free. *Shane the Chef* provides another example of cookery, albeit in animated form, where Shane and his daughter Izzy run a restaurant and host an online cooking show in which many episodes feature sea animals or a vegetable such as spinach added to a recipe.

Molly and Mack is a fictional series about indoor market 'The Big Hub', located in fictional 'Bridgetown' (really North Queensferry in Fife, Scotland). Molly and Mack are siblings who, along with their father, spend their days in the market, where Mack has a stall and their father runs the Kids Club. In Series 1 Episode 9, 'Something Fishy', deliveries of fish for the harbour's fish and chip van and cakes for the indoor café are mixed up. Fish and chips (known in some areas of Scotland as a 'fish supper') is a regular meal choice of visitors to coastal towns and villages like North Queensferry. Nationally, cakes are normally (but unnecessarily) baked with eggs and dairy and other cafeteria foods contain animal ingredients, though animal-free versions are growing in availability.

Animality = Superhumanity?

Other animations focus on human characters who can transform into animal-themed superheroes, utilising the natural abilities of the relevant species as superpowers. This subtly acknowledges non-human attributes that require human activation. The most appropriate

current example of this is POP's *Miraculous Tales of Ladybug and Cat Noir* (four episodes in one day). All human characters who transform into animals with the help of a totem of that animal, including the protagonist Hawk Moth or the heroes, Ladybug and Cat Noir.

When access to Tiny POP was more widespread, my own then-three-year-old daughter adored *PJ Masks*, a series about some young primary-age superhero children who transform into (yet again animal) superheroes by night - Owlette, Cat Boy and Gekko. That Cat Boy can jump high and Owlette has 'super owl eyes' are examples of their species-specific abilities. It is unclear whether these characters provide children with a preference for particular species of live animal in reality. Since very early childhood my daughter's favourite animal has been a duck, yet few programmes she viewed in infancy featured ducks.

Old Traditions Die Hard

Show Me, Show Me is set in a large garden where human presenters Chris and Pui pretend play as young children would do with stuffed animals, dolls and other play items such as slides and craft materials. Early in the episode 'Donkeys and Piers', real donkey Charlie joins them and various statements about him are made, such as 'donkeys are very strong and they can work very, very hard […] plodding on and on and on […] nodding, plodding, faithful donkey […] being a donkey is really hard work', before the presenters help one of the toys pretend to be a donkey, saying 'here are your panniers to help carry your load'. They then repeat a rhyme, 'plod, plod, plod, plod, nodding, plodding, faithful donkey, carrying a load, following the road' as the pretend donkey offers to carry everyone's things. At one point, Pui exclaims 'your load is looking very heavy – don't drop it!' He wants to go somewhere where he can rest his hooves. Pui suggests the seaside. At the end of the show, we see a stuffed toy donkey on a beach. Although not explicit in the show, donkey rides have been associated with British seaside resorts such as Blackpool for more than a century. Children can, at a price, have a donkey walk them up and down the sand (Grand Theatre Blackpool 2019). Even talking with toy donkeys in this way reinforces the idea that donkeys are working animals for human use.

Lastly, in *Sadie Sparks*, Gilbert is a somewhat grumpy seven-hundred-year-old rabbit, sent from the magical realm to earth to help and guide Sadie, a young high school magician-in-training. The magical realm is contained within a top hat and again provides a sense that the use of rabbits, as well as doves and other species, in magic shows is normal, despite the potential stress this may cause to the animals (Oxley 2015).

Changing Channels and Re-representations

Many millions of animals are killed for food alone each year in the UK, and no children's programmes address this, instead providing stereotypical, anthropomorphic, 'thingified' or 'cutified' versions of various, mostly wild and pet, species. Regardless of characterisation, it is a distraction - 'children's affective imaginations are directed toward representations and away from the real victims' (Cole and Stewart 2018, 109).

It could be suggested, then, that the use of anthropomorphised animal characters on children's TV is in itself a form of animal exploitation, attracting young viewers regardless of how their

social groups treat non-humans in reality, whose influencers establish and maintain paradoxical praxis such as that outlined in the 'Peppa Pig Paradox' (Korimboccus 2020). Adults feeding animal body parts to children whilst also encouraging them to love animals could be regarded as a disservice, and far from inclusive in terms of ethical beliefs and children's rights (Livingstone 2008).

The five schedules studied here are only a snapshot of the range of programming accessible to children, and the analysis has necessarily been a mostly descriptive one. A quick investigation of this week's offerings on CBeebies (winter 2020-21) sees a comparable breakdown of non-human-fronted animated programmes to last summer's sample (BBC 2021b). The 'food' animal category remains minimally present and far from realistic where it exists, though Channel 5's short Milkshake! schedule continues to air six episodes of *Peppa Pig* every morning between 6am and 9:15am.

The media's role in society is to convey information as objectively as possible, and this has indeed been Ofcom's view for the future of children's broadcasting for more than a decade (Ofcom 2007). As such, media must play a significant part in 'preventing or promoting social change' (Almiron 2016, 54). In pluralist terms, media might simply reflect back the norms and values, needs and wants of its consumers (Valcke, Sukosd and Picard 2016). After all, if people object to what is presented to them, they consume less or access alternatives, related income falls and a media company could find it difficult to attract inward investment to continue. Investment is very powerful, and may hold more control over content than consumers would imagine. Most media - print, digital or otherwise - relies heavily on advertising revenue, and such a revenue stream may run dry if a company's production is at moral or ethical odds with its sponsorship. The status quo is less controversial and more stable (Colistra 2014; Shoemaker and Reese 2014).

What consumers believe is important may simply be dominant ideology, taught from childhood and reinforced through these secondary agents of socialisation. Animal oppression is perpetuated through 'anthropocentric-speciesist ideology' (Almiron 2016, 65), framing the non-human as the less important 'other'. TV and other media become a site of absent reality, where 'messages about culturally appropriate relationships with nonhuman animals are transmitted in childhood in many subtle, insidious and powerful ways' (Cole and Stewart 2018, 93).

As Brett Mills (2017) notes, the representation of animals on television is a normal, everyday occurrence, and 'the animal turn', particularly in the social sciences, continues to develop with the growth in animal studies. However, attention paid to the depiction of non-humans in the mass media is negligible, and so worthy of analyses such as Mills', this article and other contributions to the growing fields of critical animal and media studies (Almiron, Cole and Freeman 2018) and vegan sociology. Akin to the feminist call for '*her*story', I suggest that vegan scholars should be calling for '*their*story' to give animals a real voice, rather than a voiceover.

Many studies exist on the influence media has over children and young people in many areas of life such as violence, sexuality, alcohol and tobacco use, and it is reasonable to suggest that

the same is true of attitudes to animals. Some initial work has already been undertaken into the effect television representation has on perceptions of real wild species (see for example Parkinson 2019; Grasso et al. 2020). Further research on beliefs about represented animal species on children's television, perhaps by way of audience reception research of the children themselves, would be of benefit in directly understanding how such representations affect their perceived reality of the species concerned.

Since evidence shows young children in particular find it difficult to distinguish between fiction and real life (outlined in Canadian Paediatric Society 2003), there remains a clear difficulty for producers of such programmes, as their depictions may in part be responsible for the views of children as they relate to those animals. Children receive confusing messages which may pre-empt paradoxes in later life - animals are lovely, our friends, our peers, *and* animals are food, entertainment, vermin. TV programmes contribute to normalising the exploitation of non-human animals for human gain by avoiding the reality of much animal life, suggesting through anthropomorphic depiction that animals are happy, and reducing the likelihood of children making connections between how they feel and what they do. This paves the way for cognitive dissonance, the Meat Paradox, and perhaps the Peppa Pig Paradox, and as such, programmes may be a vital indicator of normative belief systems requiring deconstruction before progress for animals can be made. Programme makers must be convinced that true compassion lies in inclusivity. Challenges are necessary (Almiron, Cole and Freeman 2018), including this one.

As far back as sixty-five years ago, sociologist C. Wright Mills recognised that the media's power lay in the influence of the powerful over everyday consumers, using this to perpetuate social norms and values required to maintain their social positions in a stratified system (Mills 1956). Whilst technological advances in new media see this diluted a little, and provide more (albeit limited) opportunities for formerly oppressed human groups to be heard, non-humans remain predominantly 'voiceless'. The only voices animals have on children's TV are those human ones given to them by scriptwriters and actors. As children get older, even these voices grow evermore silent, replaced with humans, their own voices and issues (Paul 1996). As long as animals are misrepresented (if represented at all) in mainstream television media, a shift in consciousness is unlikely. While television chooses to support human dominance and prevent rather than promote social change for animals, it surely remains complicit in their fate.

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How 'public' is communicated in China's public diplomacy: communicating environmental justice in the case of air pollution in China

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ABSTRACT

This study re-evaluates the media communications of the domestic public's interests related to environmental justice in the case of China's air pollution in China's public diplomacy initiatives. It examines media representations of environmental justice by China's state-sponsored *China Daily*, and compares them with the Hong Kong-based *South China Morning Post*, and British and American mainstream newspapers. The examination starts from 2015, when Beijing issued the first ever red alert for air pollution, to 2018, when air pollution still haunted the country. This study finds that, besides the general policy schemes of smog mitigation, *China Daily* extended coverage to the general causes of smog and the domestic public's detailed demands for smog mitigation. It mainly adopted a neutral tone in covering environmental justice. The obvious discrepancy in coverage patterns between *China Daily* and other news media appears in the tone of covering 'adequacy' in environmental justice, with the former being neutral and the latter adopting more critical voices. This study offers a better understanding of China's evolving governmental stances in dealing with environmental justice issues in the case of air pollution.

KEYWORDS

Environmental Justice, Air Pollution, China, Media Representation, Public Diplomacy

Introduction

The increasing number and severity of environmental problems is putting pressure on nation states to react.[1] Governmental reactions to environmental issues with human interests involved are one of the driving factors of the evolving landscape of global environmental politics. Since former US President Donald Trump announced the withdrawal of the US from the Paris Climate Agreement in 2017, China has arguably been viewed as taking over as a key player in global environmental politics. This shift puts China under the spotlight regarding its management of domestic environmental problems, especially its air pollution issues (Chen, Tu and Zheng 2017). In 2015, Beijing issued the first ever red alert, the highest level of alert, for

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air pollution (Guo and Li 2018). However, the continuous governmental initiatives to tackle air pollution (Kopra 2015) have not conclusively resolved the issues (Beijing Municipal Ecological Environment Bureau 2018). Constant global scrutiny, especially from Western mainstream media including the BBC (*BBC News* 2015), CNN (Hunt and Lu 2015), and *New York Times* (Wong 2015), may push Chinese state actors to construct and clarify the country's position on air pollution issues, in which its domestic public's stakes are heavily involved in the global arena.

One of the most prominent aspects of environment-related issues is environmental justice, which is an idea developed based on the concern of equality of well-being for people (Quan 2002). Environmental justice became widely discussed in the context of China's air pollution (Ouyang et al. 2018; Sun, Khan and Zheng 2017). Moreover, the call to focus on the public's interests in environmental justice has also been reiterated in international academic studies (e.g., Moernaut, Mast and Pepermans 2018). Therefore, it is of vital importance to enrich our academic understandings of how the Chinese government strategically communicates domestic public's interests related to environmental justice to overseas audiences. It can shed light on the agendas of the Chinese government in communicating its policies related to environmental justice in the global community.

Public diplomacy is the strategic communication initiated by a practicing country with foreign publics, through channels such as news media, to achieve mutual understandings of values and policies of the practicing country, manage a favourable country image, and establish legitimacy (Golan 2013; Nye 2008). Empirical studies found successful examples of this communication, including South Korea in engaging with foreign public (Park and Lim 2014), and China and the US in strengthening their climate-related diplomatic networks (Yang, Wang and Wang 2017). One of the key elements of public diplomacy communication is the country's management of the domestic public's interests, which constitutes an essential aspect of the country's image (Buhmann and Ingenhoff 2015; Yun 2006).

The Chinese government embraces the idea of public diplomacy, and strategically constructs and communicates China's policies and values to foreign publics through state-sponsored outward focused news media (Huang and Wang 2019). Existing studies have extensively examined the outcome (e.g., Cheng, Golan and Kiousis 2016; Zhang et al. 2018) and the underlying political and economic issues (e.g., Hartig 2015; Sun 2014) in China's public diplomacy communication. In response to the textual turn of public diplomacy research (Zhao 2021), this study focuses on the message of China's public diplomacy communication. Studies of China's outward-focused communication of the domestic public's interests involved in the case of China's air pollution mainly focused on relevant media representations before 2015 (e.g., Chen 2018; Liu and Li 2017; Liu and Zhang 2018). Given the global pressure on China's governmental policies to deal with air pollution, especially after the first red alert in 2015, it is important to re-evaluate relevant journalistic representations by Chinese outward-focused media, which is a part of China's legitimisation of its policies in the global range. Specifically, this study attempts to see how the Chinese government has strategically communicated its domestic public's interests as an essential element of China's governmental stance on air

pollution mitigation (country self-image) and how the communication negotiated, or contested, with its country image perceived by other countries, especially their mainstream media.

This study is composed of six parts. Following the introduction, the study rationalises the communication of 'public' in public diplomacy, and reviews existing literature on relevant practices in China. It then focuses on studies of China's public diplomacy communication of environmental justice issues and calls for an updated investigation of this topic in the context of China's ongoing air pollution and evolving international politics. The fourth section outlines this study's methodology and details the sampling procedures, unit of analysis, and the method of qualitative content analysis. The research findings are presented in a combination of frequencies of codes and interpretative quotations, followed by the discussion and conclusion. Overall, this study finds that China's state-sponsored news media *China Daily* (*CD*) extended coverage from the general policy schemes of smog mitigation to the general causes of smog and the domestic public's detailed demands for smog mitigation. *CD* mainly adopted a neutral tone in covering environmental justice. *CD* and news media in Hong Kong, the UK, and the US differed in the tone of covering 'adequacy' in environmental justice, with the former being neutral and the latter adopting more critical voices.

Communicating 'Public' in Public Diplomacy

Public diplomacy activities are meant to strike a balance between a country image which points to foreign publics' perceptions of the country, and a country self-image (also labelled as country identity) which refers to the country's collective self-perception (Buhmann and Ingenhoff 2015; Entman 2008). A country self-image goes through a negotiation process between the self-perception of a country by its citizens collectively and the country image constructed by foreign publics (Ruscinao 2003). In other words, setting the tone for a country's policies in the global arena through the channel of public diplomacy is a two-dimensional process. Considering the diversity of domestic publics in China (Buhmann and Ingenhoff 2015), this study also considers the image of China constructed by English-language commercial news media in China's special administrative regions (SARs) of Hong Kong and Macau, which enjoy a larger degree of freedom but are still under the scrutiny of the Chinese government (Chen 2018; Krumbein 2015). This image is considered as being situated between country self-image and country image.

A country image is composed of 1) foreign publics' knowledge about a country's attributes (*what* foreign publics say) and 2) their affective evaluation of the country and its attributes (*how* foreign publics say it) (Buhmann and Ingenhoff 2015). One essential aspect of the attributes of a country image is the country's social and ecological responsibility towards its domestic public, which directly influences foreign publics' interest in and rapport with the country (Buhmann and Ingenhoff 2015, 115). Similarly, Seong-Hun Yun (2006, 302) included the concern of people's well-being domestically and internationally in 'humanitarian, developmental, human rights, and environmental issues' as one of the ethical measurements of the excellence of a country's public diplomacy activity.

The Chinese government has communicated its domestic responsibility towards its citizens in various issues, such as human rights and HIV/AIDS management, to overseas audiences through state-sponsored media channels. Existing studies have explored its communication patterns in comparison with those by other news media. For example, when covering human rights protection, Frédéric Krumbein (2015) noticed the contrast between *CD* and other news media such as *New York Times* (*NYT*) and *South China Morning Post* (*SCMP*). Although the former increased the amount of coverage of human rights from 1998 to 2008, it silenced the problems embedded in China's political and civil rights and positively depicted China's development in human rights protection, while the latter two negatively covered the human rights violation in China (Krumbein 2015). Similarly, little congruence was identified in covering China's HIV/AIDS management between China's official Xinhua News Agency (Xinhua) and the American Associated Press (AP) (Wu 2006). While Xinhua defended China's governmental measures towards the HIV/AIDS problem, optimistically depicted China's progress, and blurred factual information about its HIV/AIDS management, AP negatively constructed a dishonest, abusive, and incompetent image of China on the same issue (Wu 2006). On the contrary, in communicating the annual 'Two Sessions' on Twitter, Chinese state actors covered issues such as society and livelihood and reached issue congruence with overseas audiences in these aspects (Jia and Li 2020).[2] Nevertheless, in communicating human rights issues, while Chinese officials explained them from perspectives of judicial and poverty elimination efforts, overseas audiences linked human rights in China to the political dominance of freedom of speech (Jia and Li 2020).

A country's responsibility towards its citizens in environmental issues is also an important part of its image construction and projection (Buhmann and Ingenhoff 2015; Yun 2006). China has been dealing with a range of environmental issues in recent years, including water, land, and air pollution, and forest deterioration (Yang, Wang and Wang 2017). It has been leveraging the state-sponsored English-language news media platforms to communicate its policies and activities in tackling these issues (e.g., Chen 2018; Liu and Li 2017; Zhao 2021). This study will specifically focus on China's communication of air pollution and the associated environmental justice issues through its outward-focused news media.

China's Air Pollution, Environmental Justice, and Media Representation

China's ascending economy is accompanied by environmental degradation, especially air pollution. The heavy concentration of the pollutant PM 2.5 in the air (Chen et al. 2017; Liu and Li 2017) can cause damage to the population's health (Chen 2018). On 7 December 2015, Beijing issued the first ever red alert, the highest warning level, for heavy air pollution. Although the Chinese government has been investing in administrative and technological measures to tackle air pollution (Kopra 2015), the choking smog came back again in 2018 (Beijing Municipal Ecological Environment Bureau 2018). One of the severe issues emerging from China's air pollution is environmental injustice. Ruixue Quan (2002, 464) defined

[2] Two Sessions' refers to the annual meetings of the National People's Congress and the Chinese People's Political Consultative Conference National Committee in March in China (Jia and Li 2020).

environmental justice in China as:

> […] fair treatment for people of all races, incomes and occupations, regardless of gender, residence, educational level, age, political position or background, regarding the development, implementation and enforcement of environmental laws, regulations, policies, and meaningful involvement in the decision-making processes of the government, and the fair distribution of environmental burdens and benefits to all. (2002, 464)

Research revealed the correlation between unequal exposure to PM 2.5 and age, education, and cancer morbidity in China (Ouyang et al. 2018). To fight the effects of air pollution, middle- and high-income groups are more likely to invest in more expensive and effective self-protection measures than low-income groups, indicating the inequality in smog mitigation in urban China (Sun, Khan and Zheng 2017).

Existing studies (e.g., Chen 2018; Liu and Li 2017) found that China's public diplomacy initiatives actively used outward-focused news media to communicate China's governmental stances and measures in dealing with air pollution to the global audience. The studies mainly focused on relevant media representations before 2015. Their results showed that China's state-sponsored media touched upon the notion of environmental justice mainly from the perspectives of the transparency of information about air pollution and China's governmental measures to deal with it. For example, Sibo Chen (2018) identified that China's Xinhua and *CD* acknowledged the serious damage of smog caused to Beijing residents in January 2013. On the contrary, Ming Liu and Chaoyuan Li (2017) found that although *CD* (2011-2014) acknowledged that China's smog had consequences for residents, it bypassed the detriment caused by smog to the public's health. In terms of discursive construction strategies, Ming Liu and Yiheng Zhang (2018) observed that *CD*, from 2011 to 2014, complicated and mystified the causes of health problems by air pollution, thus constructing the uncertainty of smog's harm to residents. Interestingly, Yumin Chen's (2014) study observed an attitudinal shift on the part of *CD* in constructing China's air pollution from ignorance of the issue to the negative evaluation of the impact of air quality on China's residents' health from late 2011 to early 2013.

Similar to Chen (2018), Liu and Li (2017) also uncovered that China's outward-focused media highlighted and glorified the responsibilities fulfilled by the Chinese government in combating air pollution. The positive evaluation shaped a sheer contrast with the criticism levelled against the Chinese government about its '"active yet non-apologetic" stance' by *SCMP* and AP (Chen 2018, 394) and its 'inaction and artifice' by Anglo-American newspapers (Liu and Li 2017, 399). Ran Duan and Bruno Takahashi (2017) also identified that *CD* most frequently mentioned Chinese governmental strategies to deal with the pollution from 2008 to 2013, in contrast to the *NYT* which focused more on topics such as the air pollution's negative social impact and the associated health risks. Unlike the pro-China tone applied by China's state-sponsored media identified in other studies (e.g., Chen 2018; Liu and Li 2017), Duan and Takahashi (2017) found that *CD* mostly adopted a neutral tone in framing issues of air pollution while the *NYT* was more critical in coverage and did not mention China's pollution mitigation progress at all.

Apart from the information transparency about air pollution and China's governmental initiatives to tackle air pollution, other aspects of environmental justice were seldom addressed in China's state-sponsored outward-focused news media. For example, Chen (2018) found that Xinhua and *CD* silenced the voices of vulnerable groups of people, such as migrant workers in Beijing, in the case of air pollution.

Nevertheless, besides the sheer difference of construction between China's state-sponsored media and other news media as mentioned above, Chen (2018) also found that the acknowledgement of the health risks of air pollution by Xinhua and *CD* resonated with the coverage by *SCMP* and AP. Moreover, Chen (2014) discovered that *CD* brought forward a shared identity between China and other countries in tackling air pollution by, for example, acknowledging Western experience in combating air pollution problems and mentioning the business opportunities generated by air pollution to both domestic and global markets. In other words, the construction of China's image in dealing with environmental justice issues in the case of air pollution by China's state-sponsored media might have gone through a process of negotiation between the country image and self-image (Buhmann and Ingenhoff 2015; Entman 2008).

Since the above studies mainly focus on China's outward-focused communications of environmental justice issues in the case of air pollution before 2015, this study attempts to re-evaluate relevant media representations from 2015 onwards. This study aims to answer the following research questions:

> RQ1: What is the proportion of coverage of environmental justice when covering China's air pollution in China's outward-focused English-language news media, China's English-language commercial news media in SARs, and Western mainstream news media respectively?
>
> RQ2: What components of the notion of environmental justice were included in the four groups of news media and how are they ranked in application frequencies respectively?
>
> RQ3: How were the components of the notion of environmental justice evaluated in the four groups of news media respectively?
>
> RQ4: What are the discrepancies of journalistic constructions of the notion of environmental justice between China's outward-focused English-language news media and the other three groups of news media?

Methodology

This study investigates the media communications of environmental justice in the case of China's air pollution through the perspective of news sources. This section introduces the rationales for and procedures of selection of news media and news articles, the unit of analysis, and the research method of qualitative content analysis.

1. Selection of News Media and News Articles

This study examines news articles released during each December from 2015, when Beijing issued the first ever red alert for air pollution, to 2018, when air pollution again masked many

Chinese cities, including the capital Beijing. The month of December witnesses the heaviest air pollution in China. The issuing of red alerts for air pollution in Beijing in 2015 and 2016 all happened in the Decembers of those years (Appendix A). Although no red alerts were issued during 2017 and 2018 in Beijing, the severest air pollution also happened during the months of December (Beijing Municipal Ecological Environment Bureau 2018; Wu 2017). The Chinese government may address its policies on dealing with air pollution during these periods to the outside world. News media in other countries may also scrutinise China's governmental responses accordingly.

This study uses *CD* to study public diplomacy communication by China's outward-focused news media. *CD* is a Chinese, governmentally sponsored, English-language newspaper. It enjoys a leading role in providing Chinese governmental information to global readers. Regarding the news media in China's SARs, this study uses *SCMP*, which is a Hong Kong-based English-language quality newspaper with a high international reputation for investigation. The two newspapers have frequently been chosen by scholars as examples of China-based news media to compare different journalistic representations of China-related issues to the international audience (e.g., Chen 2018; Krumbein 2015).

The selection of American and British news media was based on two considerations. First, this study focuses on outlets that are also newspapers that paid attention to China's air pollution. This study narrowed down the search scope with the aid of the sources for 'Major US Newspapers' and 'UK Newspapers' in the database of LexisNexis by restricting the country to 'China' and requesting documents with the keywords 'smog', 'air pollution', 'PM2.5', 'haze', and/or 'particulate matter' in the body. Second, daily quality newspapers with a large daily readership were selected, which could influence the Western mainstream media discourses and public perceptions on major global issues. They may be the targets with which Chinese mainstream news media negotiate or contest news coverage patterns. Accordingly, this study uses *NYT*, *The Wall Street Journal* (*WSJ*), *The Washington Post* (*WP*), and *USA Today* (*UT*) to study the construction of China's image in American mainstream newspapers. The British news media selected were *The Guardian* (*GU*), *The Independent* (*IN)*, *Financial Times* (*FT*), *The Telegraph* (*TE*), and *The Times* (*TI*).

For *CD*, this study uses only news articles with more than 500 words to balance with the numbers of selected news articles from other news media. News articles of *WSJ* were retrieved from Dow Jones Factiva and all the others from LexisNexis. After sifting through the located news articles, the ones covering air pollution not with a specific focus on China, duplicates, and news briefs were excluded. Table 1 lists the number of selected news articles from each news media.

Table 1. Number of selected news articles.

Group of news media	Newspaper name	Individual number	Total number
China state-sponsored media	*CD*		139
China-based media in SARs	*SCMP*		91
American newspapers	*NYT*	38	69
	WSJ	14	
	WP	10	
	UT	7	
British newspapers	*GU*	27	80
	IN	17	
	FT	18	
	TE	7	
	TI	11	
Total			379

2. Unit of Analysis

This study explores the content of environmental justice delivered by news sources in news articles. News sources are a key element in a news article for the construction of social reality (Shoemaker and Reese 2014). The news sources include author, consultant, scholar, scientist, doctor, lawyer, news media, civil/public administration, business representative, international organisation, central administration, public, activist, artist, campaigner, and so on.

The unit of observation is the news source's statement concerning environmental justice in China's air pollution. One news article can contain two or more statements coming from different news sources concerning different components of environmental justice. The complexity of journalistic constructions of the notion of environmental justice, both in the components of the notion covered and in the tones of evaluation of each component, is evidenced through the aggregate of voices from all news sources.

3. Qualitative Content Analysis

This study used the method of qualitative content analysis which refers to the 'rearticulation (interpretation) of given texts into new (analytical, deconstructive, emancipatory, or critical) narratives that are accepted within particularly scholarly communities' (Krippendorff 2004, 17). Specifically, this study employed the approach of directed qualitative content analysis (Hsieh and Shannon 2005). The codebook was informed by prior categorisations and evaluations of environmental justice and was also open to the data.

To ensure the quality of the codebook and the following coding process, this study also conducted intercoder reliability assessment (Burla et al. 2008; O'Connor and Joffe 2020). Two coders, including the author, tested their agreement on the codebook using forty-five news articles (12% of the total sample) within which the study content was interspersed (Riffe, Lacy and Fico 2014). Intercoder reliability (Krippendorff 1978) ranged from .76 (evaluation of the component of 'adequacy') to 1.0 (presence of the component of 'rich people pay'), which was considered satisfactory in qualitative content analysis (Burla et al. 2008).

To interpret the journalistic representation patterns of environmental justice, this study combined the 'rank order comparisons of frequency of codes' and interpretation of quotations contextualised by China's public diplomacy initiatives (Hsieh and Shannon 2005, 1283).

This research method adopted the strength of quantitative methods by quantifying the notion of environmental justice, and also complemented the quantitative methods by considering the speciality of data when generating the codebook and contextualising the data when interpreting the news texts (Kracauer 1952-53).

The final codebook includes two sets of codes, i.e., components of environmental justice (what news sources say) and justice evaluation (how news sources say it).

Components of Environmental Justice (What News Sources Say)

These codes were developed from the literature specified in the explanation of the operational definition of each component of environmental justice in Table 2.

Table 2. Components of environmental justice and example quotations.

Component	Operational definition	Quotation
Equality of right	Every individual and every generation has an equal right to use clean air (Quan 2002)	'Pollution cuts life expectancy, with some studies suggesting it is five years shorter in northern China than in the south […]' (*The Guardian* 2015)[3]
Equality of duty	Every individual should shoulder burdens to deal	'"Everyone has a responsibility to combat smog," said Wang Xiaomei, a resident in

[3] The list of the cited news articles is included in Appendix B.

Component	**Operational definition**	**Quotation**
	with air pollution (Quan 2002)	Xinxiang City, Henan [...]' (*China Daily* 2016)
Special need	Assistance should be provided to the vulnerable groups of people (Colquitt and Rodell 2015)	'Issuing the red alert can help reduce the risk of exposing vulnerable populations like children and elderly people to severe pollution. In this sense, it is a good move by the government.' (Wei 2016)
Polluter's responsibility	The current polluter and the polluter who has accumulated emissions should deal with air pollution (Schmidt 2012)	'In Beijing alone, about 2,100 factories shut down or limited operation during the alert, according to the Municipal Commission of Economy and Information Technology.' (Abkowitz and Spegele 2015)
Rich people pay	Rich individuals should deal with air pollution (Harris 2010)	'[…] the congestion charge will be of advantage to the rich because they can afford to pay peak-hour tolls.' (Ying 2015)
Rights recognition	The public's rights in legislation or governmental plans concerning air pollution mitigation should be recognised (Balme 2014)	'The 13th Five-Year Plan is a progressive plan because it says that the public has the right to participate, to monitor, and that it's the public's right to know.' (Tatlow 2016)
Openness and participation	The decision-making and execution of air pollution mitigation should be open to the public's voices and involvement (Colquitt and Rodell 2015; Schmidt 2012)	'If there is a silver lining in the heavy smog, it should be the emerging chance policymakers can seize to galvanize as much public support as possible and the public's participation in what promises to be a long hard fight against air pollution.' (Zhu 2015)
Adequacy	Air pollution should be addressed in an all-around (not partial), timely (not outdated), and accurate (not wrong) way (Colquitt and Rodell 2015)	'Greenpeace praised the Orange Alert that had been declared for putting restrictions on construction and industry, but said that it was "clearly not enough."' (Griffin 2015)
Transparency	Information concerning air pollution reasons, consequences, and solutions should be accessible	'[…] public pressure has resulted in greater official transparency on air quality.' (Wong 2015b)

Component	Operational definition	Quotation
	(Colquitt and Rodell 2015; Schmidt 2012)	
Reversibility	Policies about air pollution mitigation can be adjusted or corrected when they are not efficient (Colquitt and Rodell 2015; Schmidt 2012)	'But a shortage of natural gas to replace coal heating systems left many households in freezing temperatures, forcing the authorities into a U-turn on the ban.' (Shen 2018)
Litigation	Recognition of environmental rights can be obtained through litigation (Balme 2014)	'To […] improve public interest litigation on environmental protection…China has enacted the Law on Environmental Protection Tax.' (*China Daily* 2017)

Justice Evaluation (How News Sources Say It)

This study adapted the scale of perceived inequality (Huang 2018) to investigate news sources' evaluation of environmental justice. The study coded the content about environmental justice voiced by news sources using a three-point scale (1 = 'disagree'/equivalent to environmental injustice; 2 = 'no obvious attitude'; 3 = 'agree'/equivalent to environmental justice). Example quotations are included in Table 3.

Table 3. Categories of justice evaluation and example quotations.

Category	Quotation
1 = 'disagree'	'Several lawyers are suing the cities of Beijing and Tianjin and Hebei province for what they say has been their failure to fulfil responsibilities in battling the smog.' (Agerholm 2016)
2 = 'no obvious attitude'	'Beijing warned a week ago that a heavy bout of smog was expected, and issued a 'red alert', which involves closing factories, shutting schools, and also forcing a large proportion of cars off the road.' (Connor 2016)
3 = 'agree'	'China is making progress battling pollution through effective measures like reducing coal consumption and increasing electric vehicles, which could inspire other countries, the UN environment head said.' (Zheng 2016)

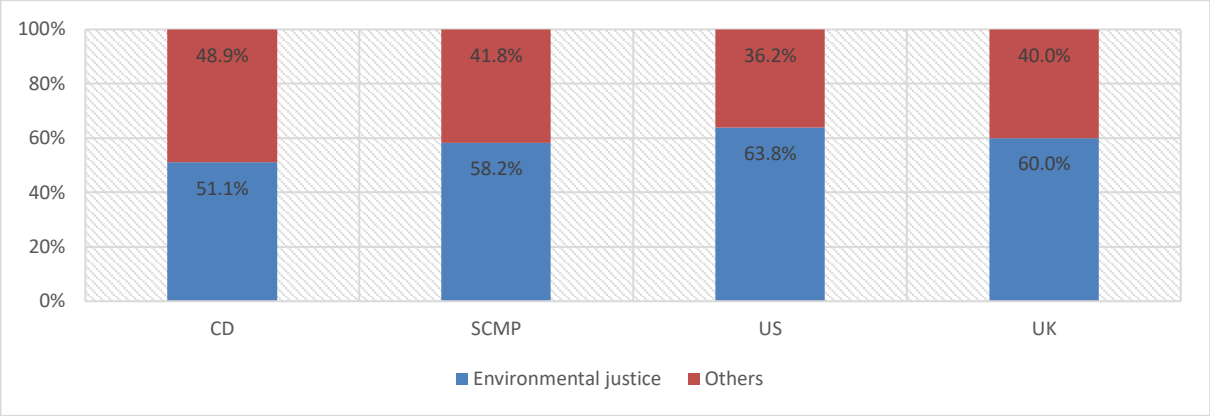
Research Findings

1. Proportion of Coverage

Figure 1 illustrates the proportions that different groups of news media devoted to

environmental justice issues when covering China's air pollution incidents. It should be noted that the range of issues that are considered as environmental justice in this study may not be exhaustive, but it is safe to say that the data provides an overview of relevant coverage. This research found that the studied media all mentioned environmental justice issues in more than half of their coverage of China's air pollution. American newspapers devoted more attention to pertaining issues (63.8%) than others, while *CD* devoted the least (51.1%).

Figure 1. Proportions of coverage of environmental justice issues in different news media.



2. What News Sources Say

CD quoted mostly from news sources mentioning the components of, in the order of frequency, 'polluter's responsibility', 'adequacy', 'special need', and 'openness and participation' in the notion of environmental justice, which echoes the coverage pattern by British newspapers. *SCMP* and American newspapers covered the element of 'adequacy' most frequently and paid substantial attention to 'polluter's responsibility', 'special need', and 'openness and participation'.

CD paid overwhelming attention to the element of 'polluter's responsibility' through the voices of news sources (36.1% of all the statements from the news sources, see Figure 2). For example, on 7 December 2015, when Beijing issued the first ever red alert for heavy air pollution, *CD* covered a range of polluters, including the 'pollution sources such as coal burning' and the 'vehicles that cannot meet national emission standard' (*China Daily* 2015a). A series of following news articles reiterated the component of 'polluter's responsibility' by covering, for example, the mandatory emergency measures towards heavy polluters such as heavy goods vehicles, activities at construction sites, and fireworks and outdoor barbecues (*China Daily* 2015c) and the monitoring of power plants, steel and metal works in the Beijing-Tianjin-Hebei area (Jinran 2015). Similarly, two days after Beijing issued the first red alert for smog in 2016, an article mentioned the restrictions imposed on polluters such as cars, suspensions of construction sites, strengthening of inspections and monitoring of factories, and the proposal of industry optimisation across the country (*China Daily* 2016).

Figure 2. *CD*'s coverage of environmental justice in China's air pollution.

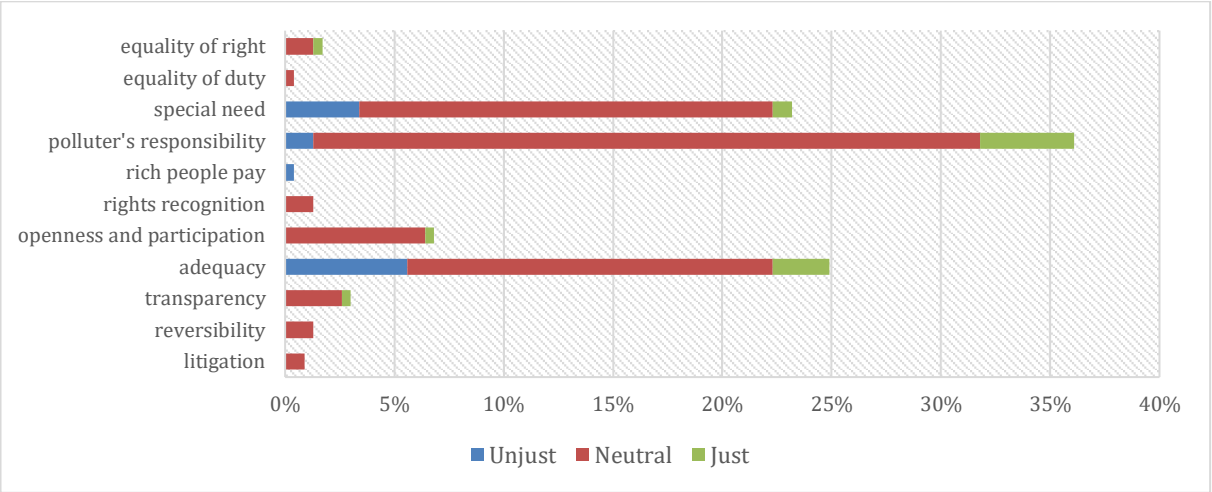
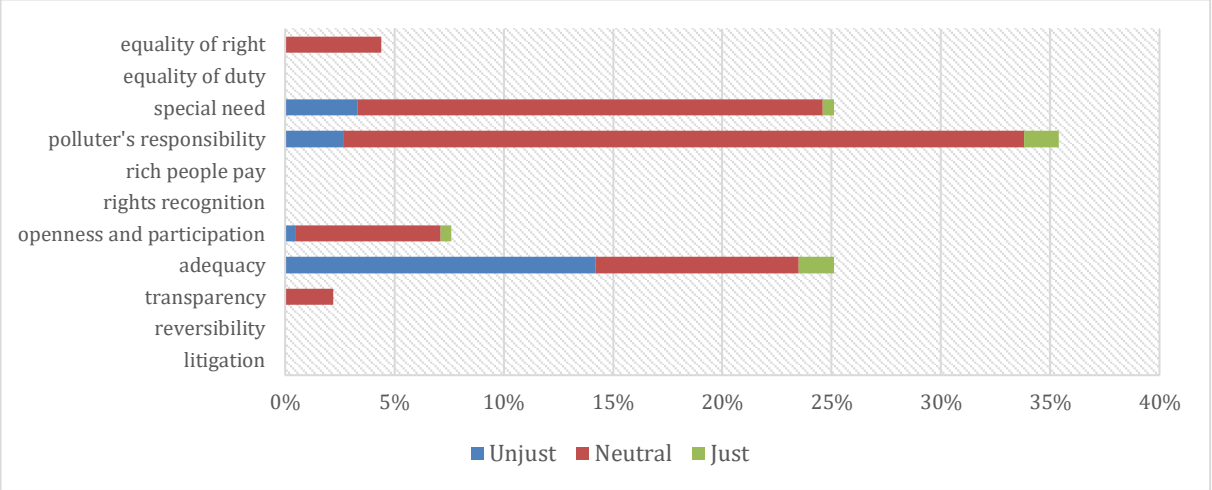


Figure 3 shows that British newspapers also paid the most attention to 'polluter's responsibility' with a roughly similar proportion (35.5%) when covering issues related to environmental justice in China's air pollution. Selected samples mentioned China's suspension of factories (Connor and Lomas 2015), cars (Pak 2015), and coal-fired power plants (Gabbatiss 2018; Hornby and Zhang 2017).

Figure 3. British newspapers' coverage of environmental justice in China's air pollution.



The component of 'polluter's responsibility' ranked second in the overall coverage in *SCMP* and American newspapers (30.6% and 27.9% respectively; see Figures 4 and 5). Similar coverages of the restrictions on cars and companies appeared in *SCMP* (Zhou 2017b; Zhuang 2015), *USA Today* (Bacon 2016), and *NYT* (Huang 2015).

Figure 4. *SCMP*'s coverage of environmental justice in China's air pollution.

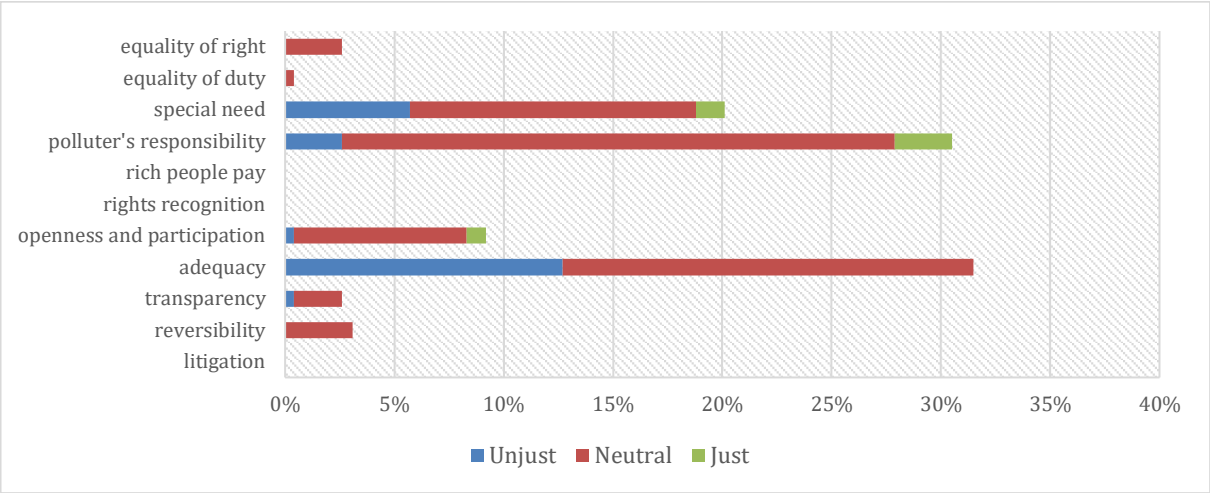
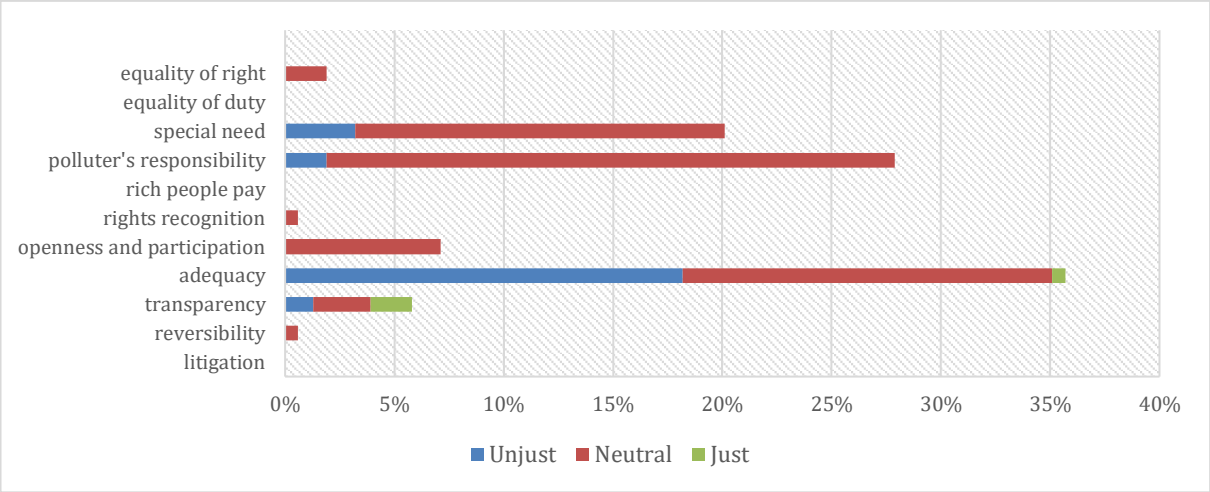


Figure 5. American newspapers' coverage of environmental justice in China's air pollution.



Both *SCMP* and American newspapers put most focus on the 'adequacy' of the decision-making and execution procedures in achieving environmental justice in China's air pollution (31.4% and 35.7% respectively). For instance, *WSJ* covered the inconvenience caused by the regulations of restrictions on cars in Beijing to people such as those making a living on ride-hailing services (Abkowitz and Spegele 2015), exposing that the policies issued could not account for both the health needs and the living demands of the public. Moreover, *WP* reported the petition launched by parents in Beijing asking the government to install air purifiers in schools for the sake of their children's health (Parnass 2017). The 'poorly thought-out measures' were also covered by *SCMP* which focused on people suffering from unstable energy supplies during winter (Zhou 2017a). The category of 'adequacy' was also given considerable attention by *CD* (24.9%) and British newspapers (25.1%). Regarding the insufficient heating supplies, *CD* covered that the central government 'urged officials in North China to visit homes to ensure that everyone is receiving heat' (Liqiang et al. 2017). Another

CD article also mentioned the inadequate infrastructure development of heating equipment in rural areas in China and the public's concerns for higher prices of cleaner coal (Zheng and Wang 2015). British newspapers pointed out the inaccuracy of information issued by the Beijing government in merely classifying the smog as a weather disaster instead of a man-made consequence (Yang et al. 2016) and the failure to issue a timely red alert to avoid harms to the public's health (Phillips 2015).

The component of 'special need' was ranked as the third most frequently quoted category (the same as the category of 'adequacy' in British newspapers) and was given a similar proportion of attention in the four groups of news media (*CD*, 23.2%; *SCMP*, 20.1%; US, 20.1%; UK, 25.1%). For example, the agendas of primary (Connor 2017; Zhao 2015) and middle school students' health (Buckley 2016) and demands of people in low-income areas in China (Shen *SCMP*, 2018) were included in the news media. 'Openness and participation' appeared as the fourth most quoted element across the four groups of news media (*CD*, 6.9%; *SCMP*, 9.2%; US, 7.1%; UK, 7.7%), although it received much less attention. A few news articles covered the Chinese government's statement of inviting citizens for city planning (*China Daily* 2015b), the elimination of social media calls for protest over air pollution (Tang *SCMP*, 2016), Beijing government's releasing of real-time data on PM 2.5 as a response to public's demands (Wong 2015a), and lawyers' action to bring a case against local governments for being incapable of executing environmental laws (Yang *FT*, 2016). Almost all the other components were covered in only less than 5% of all the statements from news sources (one exception is that 5.8% of statements from news sources covered the aspect of 'transparency' in American newspapers).

3. How News Sources Say It

Regarding the news sources' evaluation of the individual component of the notion of environmental justice, *CD* had a similarly neutral way of covering 'polluter's responsibility', 'special need', and 'openness and participation' compared to those by the other three groups of news media. However, when covering 'adequacy', *CD* adopted a neutral tone while the other three groups of news media used more critical voices. In an overall sense, all news media constructed environmental justice in a dominantly neutral way. *CD* quoted opinions from news sources viewing environmental justice in China's air pollution in a less unjust and more just way than those quoted in other news media.

The concept of 'polluter's responsibility' was overwhelmingly perceived neutrally by news sources across the four groups of news media (*CD*, 30.5% neutral statements and 5.6% others; *SCMP*, 25.3% neutral statements and 5.2% others; US, 26% neutral statements and 1.9% others; UK, 31.1% neutral statements and 4.3% others). Several excerpts in Table 4 show that no judgments were provided by news sources when covering the polluter's responsibilities for dealing with the air pollution.

Table 4. Excerpts about 'polluter's responsibility'.

News media	Excerpt
CD	'[...] according to Hebei Provincial Working Group Office for Prevention and Control of Air Pollution [...] 10 areas in Hebei province [...] were [...] required to build a better technical capacity to implement prevention and control measures, such as equipment to reduce pollution and monitor the PM10 concentrations at construction sites.' (Zhang 2018)
SCMP	'[...] local cadres [...] confiscated coal briquettes and locked up people who continued selling the polluting fuel [...] state media said.' (Zhou 2017a)
TE	'Beijing required over 2,100 major companies in polluting industries to suspend their production,' the state-run China Daily said on Tuesday.' (Connor and Lomas 2015)
UT	'Under a contingency plan for severe air pollution, the city shut down more than 700 heavy-industry plants and required 500 more to reduce production, the South China Morning Post reported.' (Bacon 2016)

The same pattern was found when portraying the component of 'special need' (*CD*, 18.9% neutral statements and 4.3% others; *SCMP*, 13.1% neutral statements and 7% others; US, 16.9% neutral statements and 3.2% others; UK, 21.3% neutral statements and 3.8% others). Some examples of neutral statements are included below in Table 5.

Table 5. Excerpts about 'special need'.

News media	Excerpt
CD	'"[...] The breathing mask I'm wearing is actually issued by the department, and there are also some warning text messages on the air pollution." Lu Liancang, 50, road cleaner.' (Zheng 2015)
SCMP	'Liu said the factory provided drinking water to about 100 households who could not afford to move away and still lived in the village.' (Li 2016)
WP	'On Jan. 4, parents in Beijing fed up with the thick lingering smog sickening their children launched a petition demanding the government put air purifiers in schools.' (Parnass 2017)
FT	'"It's cold! Brrr!" a migrant cleaning woman surnamed Chen [...] Her landlord began forbidding coal stoveheaters early this year, in line with the new regulations.' (Hornby and Zhang 2017)

The news sources quoted by the four groups of news media also made neutral statements about the element of 'openness and participation' (*CD*, 6.4% neutral statements and 0.4% others; *SCMP*, 7.9% neutral statements and 1.3% others; US, 7.1% neutral statements and 0% others; UK, 6.6% neutral statements and 1% others) in environmental justice in China's air pollution as illustrated by the following examples in Table 6.

Table 6. Excerpts about 'openness and participation'.

News media	**Excerpt**
CD	'The government will take a more sophisticated approach to its urban planning, and encourage enterprises and citizens to participate in creating the cities of the future, according to the statement.' (*China Daily* 2015b)
SCMP	'The municipal government released a list of 80 local polluting plants, including steel, cement and papermaking firms, late on Friday to call for public supervision, in an apparent bid to ease local anger.' (Tang 2016)
NYT	'This week's red alert was the latest step seeking to loosen up discussion of environmental hazards and to allow citizens to vent their frustration. Beijing officials have even thanked the city's residents for their response, writing in an open letter on Thursday, "The dedication and full support of the people of Beijing touched us deeply."' (Wong 2015a)
FT	'[...] wrote another online commenter. "The people are under too much pressure - if we try to protest, we're said to be "creating public disorder."' (Yang et al. 2016)

A contrast appeared in the media's constructions of the aspect of 'adequacy'. *CD* still represented it in a dominantly neutral way (16.7% neutral statements comparing with 5.6% unjust and 2.6% just statements). Although *SCMP* also cited news sources mainly delivering a neutral evaluation of 'adequacy' (18.8%), the unjust perceptions (12.7%) doubled those by *CD*. The unfair perceptions constituted about half of all the statements concerning 'adequacy' in US newspapers (18.2% unjust and 17.5% other statements) and dominated those in British newspapers (14.2% unjust and 10.9% other statements).

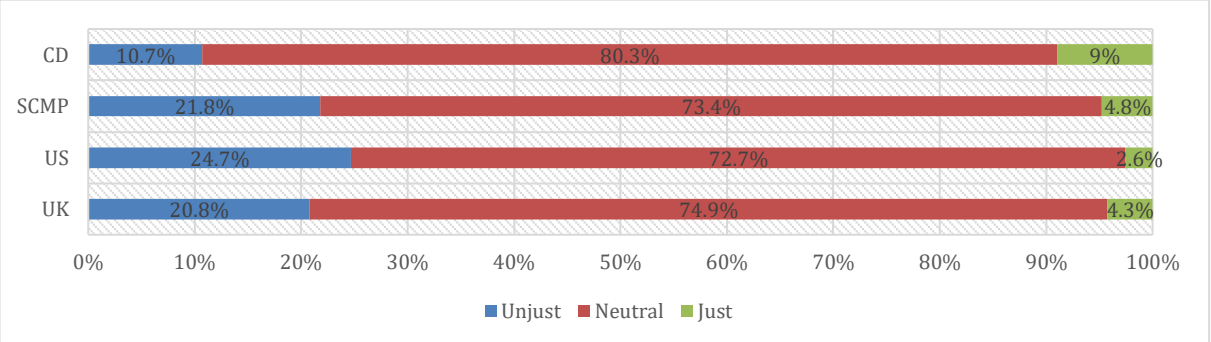
Table 7. Excerpts about 'adequacy'.

News media and tone of coverage	**Excerpt**
CD (neutral)	'Rui Wengang, director of the environmental protection bureau, said: "We have highlighted the comprehensive application of scientific and technological means to prevent and control the air pollution this winter."' (Nan 2018)
SCMP (unjust)	'Authorities faced fierce criticism late last month after they failed to issue the highest warning when the city was blanketed by pollution for five consecutive days. Many parents complained that their children should have been told to stay at home.' (Zhou 2015)
NYT (unjust)	'[...] Lin Boqiang, an energy analyst at Xiamen University. "In planning the emissions goals, the government has not really coordinated well with gas producers."' (Bradsher 2017)
TE (unjust)	'Campaign group Greenpeace criticised authorities in Beijing for issuing only their second highest alert, behind "red" which would have forced cars of the road.' (Connor and Lomas 2015)

Almost all the other components were viewed mainly as being neutral by the news sources across the four groups of news media (one exception is *CD*'s construction of the component of 'rich people pay' which was depicted as being unjust but only with a proportion of 0.4%).

Figure 6 shows that the notion of environmental justice in the case of China's air pollution was dominantly constructed in a neutral tone across the four groups of news media. Nevertheless, the news sources applied by *CD* perceived the notion in a much less unjust, and indeed more just, way than those quoted in other news media.

Figure 6. The overall tone of journalistic constructions of environmental justice in China's air pollution in four groups of news media.



Discussion and Conclusion

This study re-evaluated media communications of 'public', and specifically the domestic public's interests related to environmental justice embedded in the case of China's air pollution, in China's public diplomacy. This study found that China's outward-focused news media *CD* continued to cover issues related to environmental justice in the case of China's air pollution after 2015. Besides covering the general policy schemes in dealing with the domestic public's interests in air pollution, *CD* extended its coverage to the reasons underlying the air pollution and the public's detailed demands. It mainly adopted a neutral tone in covering the notion of environmental justice. These aspects of self-image share similarities with the images constructed by news media from China SARs, the US, and the UK. An obvious discrepancy appears in constructing the element of 'adequacy' between *CD* and the other three groups of media, with the former still being neutral in coverage and the latter three adopting more critical voices. Findings are discussed in the context of China's public diplomacy initiatives.

Firstly, this study found that, in congruence with news coverage before 2015 (e.g., 2011-2014, see Liu and Zhang 2018), *CD* continued to include the agenda of air pollution in its news coverage from 2015 to 2018. *CD* also included statements from news sources concerning the notion of environmental justice in about half of the located news articles. This may be a reflection of the issuing of the red alerts for air pollution, which pressures the state-sponsored media to cover relevant issues to overseas audiences. The coverage of China's air pollution and the involved environmental justice issues by *SCMP* and US and British news media also indicates the pressure that China's state-sponsored media was under not to hide from the issues in which its domestic publics had stakes.

Secondly, in terms of the components of environmental justice included in the statements of news sources, the results show that the four groups of news media all covered 'polluter's responsibility', 'adequacy', and 'special need' in more than 20% of all the statements and 'openness and participation' in more than 5%, although *CD* and British media paid most attention to 'polluter's responsibility', and *SCMP* and US media to 'adequacy'. This observation shows the consistency of China's mediated international communication in covering the overall architecture of governmental policies in dealing with air pollution issues ('adequacy') (Chen 2018; Liu and Li 2017). It also manifests an extension of the scope of the content of communication. *CD* also exposed the general causes of air pollution ('polluter's responsibility') and the detailed demands from the public, especially those from the vulnerable groups ('special need') and those concerning the public's involvement in the decision-making and execution procedures ('openness and participation'). The extensions may be a result of being conscious of the country images constructed by other news media. Elements such as 'rights recognition' and 'rich people pay' seldom received attention. The minimal focus on 'transparency' indicates that the Chinese government no longer put emphasis on the explanation of smog as identified by studies on relevant media communications before 2015 (e.g., Chen 2018; Liu and Li 2017).

Thirdly, as to the evaluation of the components of environmental justice, the news sources quoted by *CD* mainly neutrally judged 'polluter's responsibility', 'special need', and 'openness

and participation', and the notion of environmental justice in an overall sense, which shows consistency with Ran Duan and Bruno Takahashi's (2017) findings. The neutral tone adopted by *CD* resonates with those in the other three groups of news media. One of the reasons for *CD*'s neutral tone may be that maintaining congruence with other news media in depicting the elements of 'polluter's responsibility', 'special need', and 'openness and participation' and the notion of environmental justice in an overall sense may work more favourably for China's public diplomacy initiatives. The balance between China's self-image as constructed by its state-sponsored media and China's image as constructed by other news media (Buhmann and Ingenhoff 2015; Entman 2008) may facilitate the acceptance of China's policies in dealing with environmental justice issues in the case of air pollution among overseas countries (Golan 2013; Nye 2008).

The contrast of the evaluation of the components of environmental justice between *CD* and other groups of news media appears in the evaluation of 'adequacy'. *CD* again quoted more neutral voices, while British and US media adopted more critical ones. *SCMP* mainly used neutral opinions, but its quotations of environmental injustice doubled those by *CD*. The underlying reason for the contrast may be attributed to the connotation of the component of 'adequacy' which points directly to the appropriateness and legitimacy of China's governmental policies in dealing with the domestic public's interests in the case of air pollution. *CD*, as a governmentally-sponsored news media, was cautious in questioning the timeliness, comprehensiveness, and preciseness of governmental policies in managing the environmental justice issues embedded in air pollution.

Responding to the textual turn of public diplomacy research (Zhao 2021), this study enriches academic understandings of the communication patterns of the social and ecological (Buhmann and Ingenhoff 2015) and the humanitarian and environmental (Yun 2006) responsibilities of a country towards its domestic public to the outside world as a part of its public diplomacy initiatives.

Empirically, this study provides insights into China's evolving governmental stances in dealing with environmental justice issues in the case of air pollution. Compared with those before 2015, the current messages delivered by the Chinese government through the state-sponsored news media under the scheme of public diplomacy shifted to a more humanitarian perspective. It may be a step by the Chinese government in striving to gain more acceptance from the global community for its management of environmental and social justice issues. It may also serve as a chess move that the Chinese government uses to shape the global environmental politics. Whether these manoeuvres have exerted impact on China's country image deserves close and updated scholarly investigations.

This research is limited by its sole focus on news articles released during each December from 2015 to 2018. Although December witnesses the heaviest air pollution in China, the air problem also exists during October, November, January, and even some warmer months. Future research may usefully test the research findings of this study by examining a larger size of samples across a longer period. This could enhance the transferability of the findings (Kracauer 1952-53). Scholars may also benefit from testing and refining the above framework of

environmental justice to uncover China's mediated international communication of other environmental issues, which is extremely valuable to understanding China's actions in shaping global environmental politics. Besides examining relevant journalistic representations by *CD*, future research can also investigate the construction of environmental justice by China's state actors on other platforms, especially English-language social media sites such as Twitter and Facebook. These platforms have been leveraged by China's state actors to practice public diplomacy. It would be intriguing to see whether the discourses delivered by traditional outward-focused media channels and their corresponding social media accounts are consistent. This could provide insights into the intricacies of China's public diplomacy activities as different platforms are targeted at different groups of overseas audiences.

Appendix A

Red alerts for heavy air pollution issued by the Beijing Municipal Emergency Management Office.

Issue date	**Time span**
7 December 2015 (Available at: http://society.people.com.cn/n/2015/1207/c1008-27897940.html)	7am, 8 December 2015 - 12am, 10 December 2015 (Available at: http://zfxxgk.beijing.gov.cn/dxq353/qt1/2015-12/08/content_dxq6423153.shtml)
18 December 2015 (Available at: http://zfxxgk.beijing.gov.cn/11K000/bmdt52/2015-12/28/content_653738.shtml)	7am, 19 December 2015 - 12pm, 22 December 2015 (Available at: http://zfxxgk.beijing.gov.cn/11K000/bmdt52/2015-12/28/content_653738.shtml)
15 December 2016 (Available at: http://zfxxgk.beijing.gov.cn/dxq347/gzdt/2016-12/15/content_dxq6506221.shtml; http://www.beijing.gov.cn/bmfw/zxts/t1462468.htm)	8pm, 16 December 2016 - 12pm, 21 December 2016 (Available at: http://zfxxgk.beijing.gov.cn/dxq347/gzdt/2016-12/15/content_dxq6506221.shtml; http://www.beijing.gov.cn/bmfw/zxts/t1462468.htm)

Appendix B

List of cited news articles:

Abkowitz, A., and Spegele B. (2015) 'World News: Beijing's Smog Fight Illustrates Growth Dilemma', *The Wall Street Journal*, 11 December.

Agerholm, H. (2016) 'Chinese 'Airpocalypse' Affects Half-a-Billion People as Smog Crisis Worsens', *The Independent*, 20 December. Available at: https://www.independent.co.uk/news/world/asia/china-airpocalypse-smog-air-pollution-levels-red-alert-beijing-a7487261.html (Accessed: 19 September 2021).

Bacon, J. (2016) 'China Smog Clogs Human, Jet Airways', *USA Today*, 20 December.

Bradsher, K. (2017) 'Even Spandex is Hit by An Energy Squeeze', *The New York Times*, 13 December.

Buckley, C. (2016) 'Smog Grips China, but Exams Goes On', *The New York Times*, 22 December.

China Daily (2015a) 'Beijing Issues First Red Alert for Heavy Air Pollution', 7 December. Available at: https://www.chinadaily.com.cn/china/2015-12/07/content_22652539.htm (Accessed: 19 September 2021).

China Daily (2015b) 'China Seeks to Make Cities Better Places to Live In', 22 December.

China Daily (2015c) 'Seven Urgent Questions about Beijing's First Red Smog Alert', December 8. Available at: https://www.chinadaily.com.cn/china/2015-12/08/content_22660890.htm (Accessed: 19 September 2021).

China Daily (2016) 'China Combats Heavy Smog with Red Alerts', 18 December.

China Daily (2017) 'New Progress in Legal Protection of Human Rights in China', 16 December. Available at: https://www.chinadaily.com.cn/a/201712/16/WS5a34995aa3108bc8c6735089.html (Accessed: 19 September 2021).

Connor, N. (2016) 'China Headmaster 'Suspended' after 400 Pupils Sit Exam Outside during Heavy Smog', *The Telegraph*, 21 December. Available at: https://www.telegraph.co.uk/news/2016/12/21/china-headmaster-suspended-400-pupils-sit-exam-outside-heavy/ (Accessed: 19 September 2021).

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Animal Oppression and Solidarity: Examining Representations of Animals and Their Allies in Twenty-First Century Media

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ABSTRACT

Popular media, both literature and film, provide a location in which animal suffering, resistance and solidarity are finally visible. An examination of Bong Joon-ho's award-winning film *Okja* (2017) and Karen Joy Fowler's *New York Times* best-selling novel *We Are All Completely Beside Ourselves* (2013) reveals complex media representations of animals that highlight the significance of twenty-first century media in depicting the animal in the human world.

KEYWORDS

Animals, Media, Liberation, Anthropocentrism, Activism

Introduction

Through a critical animal and media studies (CAMS) framework, this paper analyses media representations of animals[1] in Bong Joon-ho's award-winning film *Okja* (2017) and Karen Joy Fowler's *New York Times* best-selling novel *We Are All Completely Beside Ourselves* (2013). Both reveal complex depictions of animals that highlight the significance of twenty-first century media in portraying the animal in the human world. We will first assess the portrayals of human and animal relationships in these media sources, with attention to how the animal protagonists have been individualised. These representations will be contrasted with how the autonomy of animals is typically socially and politically controlled. We will then analyse the characterisation of the Animal Liberation Front (ALF) - a social resistance movement that engages in non-violent direct action on behalf of animals - in both of these sources to assess how the inclusion, and even heroism, of the ALF is emphasised, in contrast to how the ALF is presented in mainstream social discourse. Further, because animal industries are increasingly concealed, we will also examine the importance of using both film and literature to bring viewers and readers to the locations and realities of institutionalised animal exploitation, such as laboratories and slaughterhouses. By making the twenty-first century experience visible, *Okja* and *We Are All Completely Beside Ourselves* each challenge modern conceptualisations of animals and our relationships with them.

Throughout the paper, in order to analyse the relationships between humans and animals that are present within media, we will be using a CAMS framework. CAMS is a critical cross-disciplinary

[1] The term 'animal' will be used throughout the paper to refer to non-human animals. We acknowledge that we are all indeed animals, and that humans are merely a different animal species. However, for simplicity and clarity, we will use the term animal hereafter.

field, one which draws heavily on critical cultural and feminist studies, with a specific focus on understanding the power dynamics present within media representations (Merskin 2015). This field of study aims to illuminate the numerous ways in which animals are portrayed as objects, commodities, and symbols within media, and how these representations hold consequences for the real lived experiences of animals in the world (Merskin 2015) - because, as Debra Merskin notes, 'how we image other animals is a key factor in how we (mis)understand them' (2015, 19). Mainstream media coverage typically emphasises the status quo constructions of animals, normalising their treatment and positionality, while silencing, excluding, or ignoring them - an act which, as Nik Taylor (2015) explains, is one of structural violence. This representation of animals is one rooted within a corporatist-capitalist agenda (Taylor 2015). The potential promise of a CAMS framework is one of looking at how media can also change this narrative. Rather than creating further distancing and ignorance of animal interests, the space between the audience and the portrayal of animals, whether on screen or written on a page, can be, as Barbara Creed argues, an 'ethical space that gives rise to a "creaturely" gaze with the potential to break down boundaries, to affirm communicability, between human and non-human animals' (2004, 17). This is why the depiction of animals, along with human and non-human animal relationships, within *We Are All Completely Besides Ourselves* and *Okja* are so significant.

Karen Joy Fowler's *We Are All Completely Besides Ourselves* is the story of the Cookes, who raised a chimpanzee as a member of their family. Narrated by Rosemary Cooke, the novel traces the experiences of Rosemary and her brother Lowell as they grow up with their chimp sister Fern. When Fern is sent away after displaying 'aggressive' behaviour, the family is left in a state of grief and silence that punctuates their lives thereafter. Uncovering the truth of where Fern is sent, a medical research facility, Lowell's life course dramatically changes. Leaving his family behind, he dedicates his life, and risks his freedom, as a member of the ALF to uncover the hidden truths about animals in our world.

In Bong Joon-ho's *Okja*, Mija (Ahn Seo-hyun) lives with her grandfather (Byun Hee-bong) and her friend Okja, a 'super pig', in the mountains of Korea for ten years before it is revealed that Okja belongs to the Mirando Corporation. When Okja is taken away as the best 'super pig' to be unveiled in New York City, Mija embarks on a quest to save her friend before she is slaughtered. Mija is aided in her mission by members of the ALF who aim to expose what the 'super pig' competition attempts to hide. The Mirando Corporation is led by CEO Lucy Mirando (Tilda Swinton) who, together with her sidekick veterinarian Dr. Johnny Wilcox (Jake Gyllenhaal), showcase how the human obsession with power and profit inherent in capitalism has dramatically changed our relationship with animals.

Human and Animal Relationships

The portrayal of animals in film and literature often reinforces human superiority and speciesist ideology by neglecting the autonomy, emotional experiences and desires of animals. Speciesism, according to Oscar Horta, is 'the unjustified disadvantageous consideration or treatment of those

who are not classified as belonging to one or more [privileged] species' (2010, 244). There is an apparent and imposed ideological human and animal dualism and hierarchical order in literature and film that Adam Weitzenfeld and Melanie Joy (2014) suggest is pervasive in the Western world, and is in itself an act of speciesism. A product of society and human ideology, film and literature are anthropocentric, maintaining the centrality of human existence through the subordination or neglect of animal interests (Weitzenfeld and Joy 2014), and reinforcing the speciesist belief that animals are 'bodies not beings' (Freeman 2015, 180).

In response to these normalised media representations of animals, CAMS is used to interrogate questions such as how do representations of animals other than humans impact the lives of real animals? And what can we learn about ourselves by looking through the lens with which we look at other animals? (Merskin 2015, 12). Media has been identified by CAMS scholars as a place where the sentience of animals is routinely denied and where the status quo of animal oppression is reinforced (Freeman 2015). As Claire Molloy argues, media discourses about animals 'play a role in the normalization of particular practices and relations' (2011, 13). In contrast, *Okja* and *We Are All Completely Beside Ourselves* offer differing narratives about animals and their allies that challenge normalised conceptions of animals in media.

In *We Are All Completely Beside Ourselves*, it is not until p. 77 that readers find out that Rosemary's sister Fern is in fact a chimp. Before this point, Fern had been referred to as a family member who Lowell loves dearly, a mischievous playmate, and a sister who mysteriously disappeared. The revelation that Fern is a wild animal is partly a surprise because of the confident use of familial language that convinces us otherwise. Through Rosemary, Fowler suggests that this tactic was undertaken purposefully, so that readers did not get the impression that Fern was simply 'the family dog' when she was actually 'Lowell's little sister, his shadow, his faithful sidekick' (2013, 78). This sentiment suggests that the bond that Rosemary and Lowell share with Fern is so deep that classifying Fern as a member of her own species earlier on would have risked dismissal from a humanist bias. Instead of occupying a familiar space below humans, as the nameless 'family dog' does, there is a level of equality that Fowler establishes between Rosemary and Fern, 'two daughters' who were loved the same (Fowler 2013, 58). This equalisation makes it difficult to comprehend, for both Lowell and Rosemary especially, that Fern is the property of a primate research facility; that she can be bought, sold, taken away, and experimented on without consequence.

Fowler's deliberate individualisation of Fern, as someone of equal consideration, challenges the generic and anthropocentric homogenisation of animals that is typically present in media discourse (Freeman 2015). Carrie P. Freeman found that journalists, as well as animal industries, continually refer to animals as having a generic mass identity without personal attributes in order to highlight their usefulness to humans instead of their individual personalities or interests (2015, 176). Fowler's distinction insinuates that Fern, and perhaps even all animals who are used for research, such as the hooded rats that Lowell liberates from his father's lab, are worthy of moral consideration. Instead of merely being viewed as a research subject, one who the vast majority of

the world will never see, hear, or know, Fern is instead someone with personhood. One of the most devastating displays of Fern's individual capacity is when Lowell finds her in Dr Uljevik's lab and Fern desperately signs to her brother 'Fern is a good girl. Please take me home now. I'll be good. I promise I'll be good' (Fowler 2013, 208). In contrast to the strict non-anthropomorphisation of animals that is an unwritten rule of science (Franco 2013), Fowler displays Fern with a complex subjectivity.

Like Fowler, Joon-ho showcases multiple contrasting relationships with animals and humans in his work, as well as a depth of character in Okja the 'super pig', that challenges a normative representation of those who are considered 'farmed' animals within the animal industrial complex. Anthropologist Barbara Noske (1997) coined the term 'animal industrial complex' to explain the intersecting interests of those responsible for the institutionalisation of animal exploitation and animals being reduced to productive machines. From the very beginning of *Okja*, it is evident that Okja and Mija are not a machine and an operator, but that they share a special bond. To Mija, Okja is a member of her family, just as much as her grandfather. It is unacceptable to Mija, in the same way it is unacceptable to Lowell and Rosemary with Fern, when it is revealed that Okja is actually considered property. Once Okja has been depicted as the playful, intelligent and loyal individual she is, it is also disturbing for us to learn this; that to the Mirando Corporation, Okja is nameless flesh who most importantly, needs 'to taste fucking good' (*Okja* 2017, 5:15).

The fact that animals are essentialised into emotionless objects, or are classified as mere parts of their bodies - wings, loin, breast, leg - is a socially and politically-constructed phenomenon that has been widely studied, in particular by feminists (Adams 1990; Birke and Parisi 1999; Fitzgerald and Pellow 2014). The deconstruction of animals into 'others'' is what allows animals to be treated, and represented, as inanimate objects whose worthiness is measured only by their utilitarian function to humans (Boggs 2011; Birke and Parisi 1999; Lee 2008). In *Okja*, the Mirando Corporation is a quintessential example of the oppressive capitalist culture and society that produces this essentialisation; a dynamic that is reinforced in the film through realistic interpretations of the relationships between humans and animals in the modern world. Narcissistic veterinarian Dr. Johnny Wilcox, for example, is more concerned with his own fame and fortune than the animals under his so-called care. Likewise, as the head of the Mirando Corporation, Lucy's quest to rid the world of hunger by creating a 'super pig' supersedes any shred of empathy for the individual animals or humans, like Okja and Mija, who are collateral damage in her scheme. Further, the scenes of cheering people who want to view Okja, and eat her, illustrate that the oppression of animals is not a type of violence that is inflicted by a few rogue psychopaths, but by an entire system. A critical animal perspective demands that society look beyond individual harms to animals to understand how institutionalised animal cruelty is considered socially acceptable (Fitzgerald and Pellow 2014) and how these narratives are reproduced and challenged (Merskin 2015). The most dramatic and realistic depiction of this is among the final scenes of the film, set within the walls of a slaughterhouse.

Although the majority of people will never see the inside of a slaughterhouse, Joon-ho brings Mija, and his audience, into the bright lights of what he calls a 'metallic empire' (as quoted in Niazi 2017). Images of flesh on conveyor belts, sounds of tools that dismember hanging corpses, and the look of shock on Mija's face, convey the truly horrifying reality for countless 'farmed' animals around the world. Joon-ho described his own experience of being inside a slaughterhouse for preliminary research as 'shocking and traumatic', so much so that turning to veganism after the experience seemed like 'an instinctual physical reaction' (as quoted in Niazi 2017). The insides of factory farms, slaughterhouses, and laboratories reveal an invisible industrial war against animals (Boggs 1999; Taylor 2013; Wadiwel 2015).

This war against animals is systemic and institutionalised, but it is also a war that is veiled and hidden. Timothy Pachirat (2013), in his book *Every Twelve Seconds: Industrialized Slaughter and the Politics of Sight*, discusses this hidden war against animals, the powers of visibility and invisibility, and the 'politics of sight' in a gut-wrenchingly detailed account of the inner workings of a slaughterhouse. Pachirat, a researcher who took a job at a slaughterhouse for six months, recounts the horrors of the industry, both from the perspective of the animals within the system as well as the workers, and he highlights the ways in which slaughterhouse workers have to try to distance themselves from the industrialised killing in order to continue to do the work. As Pachirat describes, the contemporary slaughterhouse is 'a place that is no-place, physically hidden from sight by walls and socially veiled by the delegation of dirty, dangerous and demeaning work to others tasked with carrying out the killing, skinning and dismembering of living animals' (2013, 3-4). His work was an attempt to make the invisible visible, and he outlines the concept 'politics of sight' as the 'embodiment of organized, concerted attempts to make visible what is hidden and to breach, literally or figuratively, zones of confinement in order to bring about social and political transformation' (Pachirat 2013, 15). Because, as Paula Young Lee notes, 'to look into the slaughterhouse is to confront the problem of human-animal relations' (2008, 242).

Therefore, bringing the visceral secrets of the animal industrial complex into the mainstream is a significant illustration of the oppressive relationship that the capitalist system has created between humans and animals, creating necessary discomfort in those who watch or read (Colling, Parson and Arrigoni 2014). In the name of production and capital, the animal industrial complex has created a 'treadmill of production' that has transformed animals, such as pigs, chickens and cows, into largely invisible commodities (Fitzgerald and Pellow 2014). Once we get to know Fern and Okja, there is a sense of injustice over the normative treatment of these animals that largely happens without scrutiny, and without attention to the resistance of the animals themselves within the animal industrial complex. This injustice is what motivates Mija, Lowell, and other members of the ALF to ultimately fight back.

Animal Allies and Antagonists

In both *Okja* and *We Are All Completely Beside Ourselves*, the ALF is not only present, but central to the narrative. They are emphasised as key figures in the storylines and, generally speaking, are

portrayed in a positive, if not heroic, light; a vast distinction from how the ALF is characterised within mainstream social discourse. At the same time, and as will be discussed, those involved in the animal industrial complex are also represented in a rather contrasting view to the mainstream discourse. They are not presented as ethical, honest and caring, but rather as manipulative, exploitative, and simply driven by profit and recognition.

The ALF is commonly understood as a fringe movement, taking part in more radical tactics falling outside of the mainstream animal rights movement. The ALF is an underground resistance movement, consisting of small independent and anonymous groups all over the world that promote and carry out non-violent direct action against animal exploitation industries. The ALF is not an *organisation*; rather, it is any dedicated individual or group who takes direct action on behalf of animals while following the ALF's four nonviolent guiding principles:

> (1) To liberate animals from places of abuse (e.g. laboratories, factory farms, and fur farms) and place them in good homes where they may live out their natural lives, free from suffering; (2) To inflict economic damage to those who profit from the misery and exploitation of animals; (3) To reveal the horror and atrocities committed against animals behind locked doors by performing nonviolent direct actions and liberations; (4) To take all necessary precautions against harming any animal, human and nonhuman (Animal Liberation Front 2005).

Often acting under the cover of night, ALF activists, donning balaclavas, and driven by the urgency for compassion and justice, willfully break the law; they are the modern-day freedom fighters – risking their own freedoms in order to liberate animals from their suffering (Best and Nocella II 2004). Throughout the ALF's history, they have cost the animal exploitation industries hundreds of millions of dollars (North American Animal Liberation Press Office n.d.), and exposed the abuses taking place behind closed doors. The ALF was successfully raising awareness and posing fundamental challenges to the animal industrial complex, so in order to protect their businesses and profits, corporations needed to try to demonise activists to the general public, and they did so through the influence of language (Potter 2018). In 1985, industry groups got together and invented a new word to target and vilify these activists: ecoterrorist (Potter 2018). As Will Potter maintains, 'They knew that if they could control the terms of the debate, then they could shift public perception of these activists so that we no longer saw them as "heroes" or "warriors" […] Instead, the public would call them terrorists" (2018, 881). Today, animal industries, corporations and lobbyists, corporate media, and government all continue to use this rhetoric, fear-mongering, and terrorist legislative targeting of activists in an attempt to control the conversation about the realities of animal exploitation industries and those who are speaking out on the behalf of animals (Potter 2018; Sorenson 2016). As John Sorenson claims, 'The idea that ecoterrorism is a serious danger is a social and political construction developed to protect the animal industrial complex from its critics' (2016, 44).

Animal activists, those who advocate for compassion and liberate animals from suffering, are deemed violent terrorists, but those who take part in the horrific abuse and killing of animals, all of which is standard within animal industries, are not (Lovitz 2011; Sorenson 2009; Sorenson

2016). This violence-framing is extensively used in representations of animal activists, despite the fact that most of the actions undertaken by the animal rights movement are cases of property damage, breaking and entering, and the rescuing of animals, and in spite of the fact that these movements have never harmed a single person (Lovitz 2011; Potter 2018; Salter 2011; Sorenson 2016). Yet, those involved within the animal industrial complex continue to claim that they are under attack by violent extremists, a portrayal that is maintained by government and majority ideologies (Lovitz 2011; Sorenson 2009; Sorenson 2016).

In *Okja* we see, perhaps for the very first time, one of the most accurately-depicted representations of the ALF in a mainstream film. While there are some minor discrepancies presented within the film regarding the ALF and their adherence to nonviolence, the general portrayal of these activists, and those who oppose them, is predominantly in line with how the ALF promotes themselves, and one cannot deny the overall generally noble depiction of the ALF throughout. We are first introduced to the ALF in Seoul, South Korea, after Okja has been taken away from Mija and the ALF arrive to try and liberate Okja as she is being transported. As the ALF members pull up beside the truck with Okja inside, activist K (Steven Yuen) announces to the driver Kim (Choi Woo-shik) and Mirando employee Mundo Park (Yoon Je-moon), 'Nice to meet you. We're not terrorists! We don't like violence. We don't want to hurt you. Stop the truck!' (*Okja* 2017, 41:16). As the ALF manages to intercept the truck and works to free Okja, Mundo calls the police for help, stating 'Terrorists! There are terrorists here!' (*Okja* 2017, 42:56). In subsequent scenes, we again see the ALF activists decrying the idea that they are violent. They are seen telling Mija that they are good people and that they are on her side. In their attempts to protect Okja from the police, the activists apologise for any harm they may have caused them: 'So sorry if we hurt you. It wasn't our intention' (*Okja* 2017, 47:57). What follows, in a perhaps unprecedented mainstream depiction, is a scene where director Joon-ho explicitly features a thorough, detailed, and precise explanation of who the ALF are. Using real-life photographs of the ALF in action along with liberated animals, activist Jay (Paul Dano) explains to Mija what the ALF are about:

> We are animal lovers. We rescue animals from slaughterhouses, zoos, labs. We tear down cages and set them free. This is why we rescued Okja. For forty years, our group has liberated animals from places of abuse. We inflict economic damage on those who profit from their misery. We reveal their atrocities to the public and we never harm anyone, human or non-human. That is our forty-year credo. (*Okja* 2017, 50:38).

This, according to the ALF's history and own guidelines, is not only an accurate portrayal, but it represents the movement using their own explicit message and code. To see the ALF depicted in a mainstream film, in such a truthful way, essentially in their own words, is something that all who support the ALF can rejoice in.

Throughout *Okja*, we continue to see animal industry representatives labelling the ALF activists as violent terrorists, and often claiming to be victimised by the activists themselves. Lucy exclaims, 'I know what they are calling me, those ALF fuckers, they are calling me a psychopath!', (*Okja* 2017, 1:00:36) to which a Mirando associate responds 'They are the psychopaths. They are narcissists.' Lucy continues, 'We get tangled up in this terrorism thing and suddenly we end up

being the ones who look bad' (*Okja* 2017, 1:03:03). This shift of focus and blame from their own behaviour to that of the activists reflects the purpose of the 'ecoterrorist' label and how it functions in the real world; corporate villainisation of activists in the public eye in order to save their own public image. While there is no evidence to support such terrorist labelling of activists, the term is consistently used to 'segment ideas, without engagement with the socio-political basis for the actions of those targeted' (Salter 2011, 219) - a prevalent theme we see throughout the entirety of the film.

While mainstream discourse promotes the idea that animal industries are honest, humane and ethical, in *Okja*, Joon-ho depicts a very different reality of the animal agriculture industry. Lucy is presented as perfectly manufactured; she has perfected the outside image not only of herself, but of the new era for the Mirando Corporation, a new era founded on so-called ethics and sustainable business practices. Throughout the film, however, we find out that Lucy is as unhinged as her business plans, using marketing to deceive her consumers about their practices, and more concerned about her image and profit than the 'core values' her company allegedly stands for. In contrast, Dr Johnny Wilcox is presented as a disheveled, hypocritical, tormented industry veterinarian, who at times seems to be struggling with his role in the exploitation of the 'super pigs', while at others, is merely concerned with his public persona and fame. Nancy Mirando, Lucy's sister, is portrayed as uncompassionate, cold and merely profit-driven, referring to Okja as 'it', repeatedly calling Okja her property, and telling Mija bluntly that they can only sell the dead ones - 'It's all edible except the squeal' (*Okja* 2017, 1:44:32). Through his character development in the film, Joon-ho pulls back the curtain on an industry built on mistruths and manipulation (Almiron 2015), exposing viewers to the reality of the animal industrial complex, those who work within it, and those who oppose it. This crucial character development, truthful representation of the ALF, and vivid spotlight on animal industries, are only further exemplified within the book *We Are All Completely Beside Ourselves.*

As in *Okja*, noble depictions of the ALF are also prevalent throughout *We Are All Completely Beside Ourselves*. Fowler spares no details in her accurate descriptions of how and why the ALF operates, or how the ALF is deemed a domestic terrorist threat. She even provides real-life historical context, referencing the first documented ALF action in the United States with the release of two dolphins from the University of Hawaii (Fowler 2013). Outlining the horrendous treatment of animals within the animal industrial complex, Fowler explicitly sets the stage for an undeniable understanding of the purpose of the ALF.

Throughout the book, Fowler also notes, numerous times, how ALF actions are deemed domestic terrorism by the FBI. The use of the term 'terrorist' is an interesting one, as definitions of the term number in the hundreds, with no single agreed-upon definition (Lovitz 2011). Terrorism discourse and legislation is therefore 'plagued by confusion and misrepresentation' (Sorenson 2009, 237). The absurdity of such labelling of activists is also emphasised in the book, and is evident when Rosemary, explaining Lowell's arrest by the FBI, notes, 'An attack on SeaWorld might mean a bomb, or it might mean graffiti and glitter and a cream pie in the face. The government doesn't

always seem to distinguish between the two.' (Fowler 2013, 304). Not only does Fowler characterise the ALF accurately and highlight the terrorist labelling of activists, she also, importantly, raises the issue of real-life activist repression in the form of what are known as 'ag-gag' laws: 'A number of states are considering laws that make the unauthorized photographing of what goes on in factory farms and slaughterhouses a felony. Making people look at what is really happening is about to become a serious crime.' (Fowler 2013, 238). Exposing the industry is therefore a crime, but the industry abuses themselves are not (Potter 2018; Sorenson 2009; Sorenson 2016).

Like *Okja*, *We Are All Completely Beside Ourselves* depicts an opposing reality to mainstream ideologies around animal industries and specifically the animal experimentation industry and those who work within it. Fowler describes in detail many instances of the horrific suffering animals endure under the guise of science, including the real-life case of Britches, a baby macaque monkey who was taken from his mother at birth and had his eyelids sewn shut in order to test an electronic sonar device, and who was eventually liberated by the ALF in 1985. As Rosemary explains this case, she notes, 'I didn't want a world in which I had to choose between blind human babies and tortured monkey ones. To be frank, that's the sort of choice I expect science to protect me from, not give me.' (Fowler 2013, 141). Throughout the book, animal exploiters are not depicted as caring, misunderstood, ethical individuals just doing a job, but rather, they are seen as troubled, even evil, and only out to make a profit. In a description of her own father and his treatment of animals as a scientist, Rosemary claims 'My father was kind to animals unless it was in the interest of science to be otherwise. He would have never run over a cat if there was nothing to be learned by doing so.' (Fowler 2013, 92). Dr Uljevik, who was in control of the lab where Fern ended up, is described as less of a scientist than a supervillain, as someone who gained pleasure out of dominating animals, and 'the kind of scientist who belongs in a prison for the criminally insane' (Fowler 2013, 214). These are not merely individuals who are misconstrued and falsely targeted by activists; these are individuals actively engaged in the exploitation and physical and mental torture of animals.

The award-winning film and best-selling novel push open the door to a world that many are not privy to: the world of animal liberation. In a rare, if not unparalleled depiction of animal activism in literary fiction, Fowler describes Lowell's life, his work uncovering the truths in factory farms and laboratories, as a result 'of his very best qualities, of our very best qualities - empathy, compassion, loyalty and love. That needs to be recognized.' (2013, 307). Similarly, in *Okja*, when the ALF is attempting to liberate Okja from her 'big reveal' in New York, hundreds of people from the audience pull out balaclavas and jump on stage to rescue her as part of the ALF action, illustrating that perhaps this is not a fringe movement or a few extremists after all, but a more popular and almost mainstream ideology.

By highlighting both animal subjectivity and activist resistance in their work, Joon-ho and Fowler also create another subjectivity: the witness. Their audiences are ultimately bearing witness. Actively witnessing the suffering and plight of animals, and sharing their stories, is very much a

political act of resistance, one that ensures that the erasure of those lives cannot fully take place. The visibility created by Joon-ho and Fowler highlights the oppression and suffering that takes place and engages us on an emotional level that has transformative potential. This is the significance of these media sources' ground-breaking representations of the ALF and the animal industrial complex, as they challenge normative ideas about animals in contemporary society. As Merskin argues, 'Vital to our understanding of media is identifying the power of images and words to either reveal or conceal' (2015, 20). In addition, the language employed in these media sources is also a compelling method to examine human and animal representation.

Animal Rhetoric

Language is also a pivotal theme in both *Okja* and *We Are All Completely Beside Ourselves*, and it is one that emphasises and challenges the dynamics between humans and animals. Research by Amy Fitzgerald and Nik Taylor (2014) reveals that the subjugation of animals can be discerned through discursive mediums. That is, commonly held beliefs about both animals, and humans can be understood through discourse. An example of this was discussed previously - the ALF is commonly identified as ecoterrorist, or as dangerous and violent, by government institutions in order to delegitimise their cause, regardless of a lack of evidence to prove this. Language was also acknowledged regarding the individualisation of Fern and Okja that Fowler and Joon-ho display. The power to name has the effect of producing a subjectivity that is in contrast to the broad generalisation of animals as 'others'. Naming also illustrates a cognitive dissonance of celebrating an individual animal, such as the popular children's show *Peppa Pig*, while billions of animals distanced on farms are killed each year (Colling, Parson and Arrigoni 2014). The scene in *Okja*, of Mija, Jay, and K running through the pen of 'super pigs' searching for Okja, while ignoring the others, highlights this dissonance. Language is therefore a powerful tool that can influence how people know, think about, and relate to animals.

One of the most prolific methods of language usage in relation to the oppression of animals is the rhetoric used to sell animal bodies (Hannan 2020). This is exemplified in the opening scenes of *Okja*, when Lucy is describing the 'super pig' project while words like 'eco-friendly', 'natural' and 'non-GMO' are projected on the screen behind her (*Okja* 2017, 2:58). In an effort to disguise the genetic manipulation of engineering a 'super pig', Lucy deliberately presents Mirando's project as 'Mother Nature's gift' in an almost childlike fashion, claiming that her core values are 'environment' and 'life' (*Okja* 2017, 1:15). In their research of meat and dairy advertisements, Fitzgerald and Taylor (2014) found that the word 'natural' was used to legitimise the use of animals based on the notion that nature is a resource. This is similar to the classification of different animals as either companion animals, as wild, as food or as research subjects, like Fern. The superiority of humans is a hegemonic principle of anthropocentrism and imperialism that has become normalised in animal discourse (Weitzenfeld and Joy 2014). Further, emphasising words such as 'environment' or 'natural' distracts from the industrial conditions in which most animals in the Western world are raised (Fitzgerald and Taylor 2014). The tongue-in-cheek rhetoric in *Okja,*

exemplified by Lucy, mirrors the efforts by the animal agriculture industry, in concealing or redressing the plight of animals who are entrenched within the agricultural system.

Believing the 'little white lies', as Lucy puts it, is part of the fallacy that pigs and cows want to be turned into Oscar Meyer wieners, that chickens want to give us their wings and that rabbits wish to 'collaborate' with researchers (Davis 2011). In his book *The Emotional Lives of Animals*, Marc Bekoff shares a quote by John Capitanio, associate director of a primate research facility, who said animals are 'a neutral palette on which we paint our needs, feelings and view of the world' (2007, 25). Karen Davis suggests that these anthropocentric images and rhetoric from animal industries and media attempt to communicate that whatever is done to animals is in their interest, whether that is rape, mutilation, imprisonment or murder - that there is a 'genocidal erasure of an animal's true identity in favour of the abuser's image' (2011, 46). Images of happy animals, despite their real circumstances, and words such as 'humane' or 'free-range' have gained traction in the modern world because of increasing attention to how animals are treated in labs or factory-farm settings. However, although the language of capitalism has shifted, it is the function of the same system that justifies and normalises the instrumentalisation of non-human animal life (Almiron 2015). As Merskin argues, '[…] the symbolic and the real are connected' (2015, 14). Language, as conferred by symbols, diction, or a lack of communication, remains a central contemporary method of power and domination that can impact how animals are understood, and consequently treated, in the real world (Merskin 2015).

Conclusion

Using the examples of *We Are All Completely Beside Ourselves* and *Okja*, and using a CAMS framework, we have demonstrated how these specific twenty-first century media representations of animals, and animal activists, have challenged the dominant discourse and ideology that underlies human and animal relationships typically present in media sources. CAMS scholars acknowledge the role of media in influencing and informing social responses, which is why a critical examination of the anthropocentric language, images and symbols within film and literature is essential to understanding our relationship with animals. As Merskin argues, a speciesist ideology 'informs what media are made, what content they contain, and what hegemonic message they express' (Merskin 2015, 17). As a result, animals are re-presented in the aggregate, as symbols, commodities and objects (Merskin 2015). Through granting the animal protagonists in their work individual agency, Fowler and Joon-ho challenge the devaluation of animals in media. Both Fern and Okja are represented as complex individuals who resist the violence that is inherent in the animal industrial complex. Although these two animals are fictional characters, their subjectivity helps to decenter the master narrative that has hidden the real experiences of commodified animals from public view.

As scholars have rightly argued, animal oppression has largely been made invisible (Adams 1990; Boggs 2011; Pachirat 2013). The distancing of animals used for experimentation or slaughtered for consumption, from the pharmacy or the supermarket, is a concealment that allows people to

insulate themselves from the moral arguments of animal interests - the pain and suffering of animals cannot be discerned by those so far removed from the process (Boggs 2011). In contrast, Fowler and Joon-ho bring their readers and viewers not only to the 'zones of torture' (Boggs 2011, 77) but they emphasise, and even heroise, those who are fighting for animal liberation. They provide their audiences with an opportunity to dive into the world of animal liberation, to connect and sympathise with activists, and to understand who and what the ALF are fighting for, and who they are fighting against.

As demonstrated throughout this article, the representations of the ALF within both *Okja* and *We Are All Completely Beside Ourselves* are particularly significant, as these narratives challenge the dominant discourse around the ALF and animal industries in mainstream media. Viewers and readers are exposed to the reality that animal activists are not violent criminals or terrorists, but compassionate individuals, motivated by empathy, love and justice, using direct action to liberate animals from suffering. In a world where animal activists are villainised, these media sources do the opposite; they highlight the inconsistencies in this unfounded characterisation, exposing the true goals and actions of activists, and uncovering the reality of the suffering that takes place within the animal industrial complex. These mainstream media representations provided a location in which animal suffering and individuality, along with a realistic depiction of activist intentions, are finally made visible.

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Folklore and the Climate Crisis: Reading Beara as an Anthropocene Patch with Máiréad Ní Mhíonacháin

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ABSTRACT
Though the term 'Anthropocene' has become dominant in discourses surrounding the climate emergency, its globalising tendencies risk discouraging grassroots action. This article argues, therefore, that in order to better understand the climate crisis, a more local approach is needed. Folklore is suggested as one such way the specific impacts of the Anthropocene can be read. To investigate, this article analyses the folklore of Máiréad Ní Mhíonacháin as a 'Capitalocene Patch', combining Anna Tsing's 'Patchy Anthropocene' and Jason Moore's 'Capitalocene' theories. In particular, this article looks at how Ní Mhíonacháin's folklore records human and non-human produced landscapes, and asks how *piseoga* (superstitions) might produce healthier relations with the environment.

KEYWORDS
Folklore, Anthropocene, Irish language, Ní Mhíonacháin, Environmental Humanities

The role of humanity in the climate crisis has become a key issue over the past two decades. In response to this, the term 'Anthropocene', popularised by Paul Crutzen, has been widely adopted in academic and cultural discussions around climate change (Crutzen et al. 2000). Despite this, the concept has many of its own issues. Rooted in the term *anthropos*, the Greek term for human, the Anthropocene implicates all of humanity equally within the climate crisis - something that is hard to justify when one considers the vast difference in carbon footprints between countries of the global north and south. Though perhaps a useful simplification, uncritical uses of 'Anthropocene' flatten and obscure global inequality, and therefore the role that economic and social systems have in shaping the current era. Furthermore, by encouraging a zoomed out, 'global' approach to climate change, it contributes to climate negativism, a feeling of hopelessness in the face of what seem like immense challenges. Few if any humans, I believe, are capable of understanding something as large and multifaceted as the climate crisis - a point eco-critic Timothy Morton enforces through the use of the term 'hyperobject' to describe the climate (2018, 77). He uses this term to describe phenomena which are too large to grasp or experience in their totality. In this sense, then, one might take the opinion that the term Anthropocene is unhelpful.

However, though the term is somewhat problematic, it also has worth given that climate change is a planetary issue caused by humanity. What is needed, perhaps, is not to abandon the term, but to complexify its implications. This way of thinking has already produced a range of theories and new terminology, from Donna Haraway's 'Chthulucene' to the 'Plantationocene', as used by several theorists including Anna Tsing (Haraway 2015; Tsing, Mathews and

Bubandt 2019). These terms seek to take the Anthropocene and make a case for focussing on one specific aspect to better understand this crisis and, ultimately, to undo some of the damage. What links all such theories is a desire to zone-in on and complicate the Anthropocene narrative, to ask questions about which humans are most implicated in this crisis and to consider key issues of agency and influence. In short, they seek to break down the Anthropocene into more understandable zones, helping to combat the issue of the hyperobject. In this paper, I will apply two such theories - Tsing's 'patchy Anthropocene' and Jason Moore's 'Capitalocene' - to the *béaloideas* (Irish folklore) of Mairéád Ní Mhíonacháin, to ask how reading her native Beara as a Capitalocene patch might contribute to understandings of the climate crisis (Moore 2017; Tsing, Mathews and Bubandt 2019). In particular, Ní Mhíonacháin's work will be used to reveal Beara's industrial landscape, non-human victims of imperialism, and the role the supernatural has in fostering healthier human/non-human relations.

Ireland and the Patchy Anthropocene

First, the theories of the Capitalocene and patchy Anthropocene will be untangled in light of how they assist in analysing *béaloideas*. Moore's theory of Capitalocene insists on an economic reading of the Anthropocene. He argues that the current era has come about due to the interrelated concepts of 'cheap food' and 'cheap nature' (2017, 600). Moore describes the process of cheapening as '[…] twofold. One is a price moment: to reduce the costs of working for capital, directly and indirectly. Another is ethico-political: to cheapen in the English-language sense of the word, to treat as unworthy of dignity and respect' (2017, 600). This 'cheapening' has been managed by separating humans from nature and through 'rendering the work of many humans - but also of animals, soils, forests, […] - invisible or nearly so' (Moore 2017, 600). Capitalism excludes many beings, human and non-human, and results in a 'Necrocene', with those who are surplus to the needs to capitalism devalued and/or disposed of.

Capitalism, Moore argues, is a way of organising nature and is managed through the unpaid work/energy of 'women, nature, and colonies' (2017, 598). This is pertinent to Ireland – as a colony - and to the folklore of Máiréad Ní Mhíonacháin who, as a speaker of a minoritised language, and as a woman, was doubly discounted in an imperial system. Ireland, described by Jane Ohlmeyer as a 'laboratory of empire,' was an early British colony, with the modern colonial period beginning with the Ireland Act (1541) and the subsequent conquest of Ireland (2004, 27). Echoing later developments, control was gained through a system of plantations, where settlers loyal to the English crown were given large portions of cleared land. Though the earlier plantations, in Munster, Offaly and Laois, were limited in their success, the Ulster plantation in the northeast would secure English control in Ireland. Throughout the modern colonial period, from 1541 to 1922, Ireland's primary role within the British Empire was as a producer of food. Though the country is best known today for pasture-based agriculture, until the Famine, arable farming, especially the cultivation of corn, was central to the Irish farming economy (Ó Gráda 1990, 168). Using Moore's theory, it can be understood that Ireland was valuable as a place where 'cheap food' could be obtained. It thus follows that there would be living beings deemed surplus to the utilitarian needs of extractivist capitalism. In the case of

Ireland, this included its forests and many native species, including the wolf, the great crane and St Patrick's wort.

Colonialism in Ireland also came at great human cost. The early modern colonial period (1541 to 1691) was marked by war, famine and disease, especially during the Cromwellian wars in the 1640s and 1650s. Some two hundred years later, over a million people would die in the Great Famine (1845 to 1852) from disease and hunger following the failure of the potato crop. Most historians agree that this scale of death is attributable to British policymaking at the time (Gray, 2020). As such, it is perhaps unsurprising that Moore himself includes Irish people, historically speaking, as an example of a people excluded from modernity, alongside indigenous groups and women. This inclusion, however, needs to be more nuanced. While Irish people, as is explored above, suffered under colonialism, over time they became racialised as white, and though anti-Irish sentiment remained common well into the twentieth century in the USA and UK, white Irish migrants nonetheless benefitted from opportunities not available to people of colour, or indeed Irish travellers/*Mincéirí*. Crucially, Ireland today, as a wealthy EU member state, participates in neo-imperial flows of capital.[1]

If one needs to tread carefully when considering Ireland within a colonial context or as a victim of the Capitalocene, this does not mean it should not be considered at all in this light. As an early colony located in Europe, it represents a peculiar case in the history of imperialism, while its subsequent position, from the nineteenth century, as both a victim of empire and an oppressor, can aid understanding of the centrality of economics and class to the European imperial project. If some Irish people, mostly from the Protestant ascendency class, participated in and profited from empire as soldiers, landowners and traders, many others suffered as poorly paid, landless labourers, and it was this latter group which was affected most by the Famine (Reilly 2020). Furthermore, though English became an increasingly dominant language in Ireland during the 1800s, even by the end of that century there remained hundreds of thousands of monolingual Irish speakers who were denied the right to deal with state apparatus or courts through their first language and were therefore dispossessed of justice.[2] In short, although it cannot be said that all of Ireland, or all Irish people, were excluded from capitalism and systemically oppressed, certain groups, particularly poor Irish speakers and travelling people, were.

It is useful to expand on Tsing's theory of the patchy Anthropocene here, which she defines as '[…] the uneven conditions of more-than-human liveability in landscapes increasingly dominated by industrial forms' (2019, 186). That is to say, landscapes are taken and examined in light of networks of actors, human and non-human. Tsing uses 'patches', or specific contact zones, to create a theory that functions on both a local and planetary scale. The plantation is taken as an example of such a patch where human/non-human relations can be read to better understand the Anthropocene - one where 'ecological simplifications', such as monocropping,

[1] Ireland's current economic model relies on foreign direct investment from multinational companies attracted by low corporation tax rates. This costs other countries at least sixteen billion dollars in lost tax revenue every year. See*:* https://www.irishtimes.com/business/economy/tax-evasion-in-ireland-costs-other-countries-16bn-a-year-1.4414706

[2] Evidenced by the Maamtrasna case in 1882, where Maolra Seoighe, a monolingual Irish speaker, was wrongly convicted of murder and executed. See: https://www.thejournal.ie/maamtransna-murders-4394952-Dec2018/

have led to 'feral proliferations' of non-human actors who thrive in such environments, outside of the control of people (2019, 189). Folklore has a key role to play in interpreting 'patches', as it tends to be deeply rooted in the local, weaving human and more-than-human narratives together. Its importance to climate crisis conversations is underlined when one adds an economic reading, which highlights the exclusion of rural Irish-language speakers, and their culture, from imperial modernity. If part of Tsing's 'art of living on a damaged planet' is unlearning some of the toxic patterns that have emerged since the rise of the Capitalocene, it follows that folklore might be one place to start (2017). For the purposes of this paper, I will be using Ní Mhíonacháin's folklore as an example of understanding the patch of the Beara peninsula.

The Anthropocene in Beara

Firstly, it is important to provide some background on Máiréad Ní Mhíonacháin and the collection *Béarrach Mná ag Caint* ('A Beara Woman Talking'). This collection is of interest for a number of reasons. Firstly, it is a relatively rare example of published female folklore. All full-time collectors employed by *An Coimisiúin Béaloideas* (The Folklore Commission) were men and, as a result, most archival material comes from male informants (Ní Churraighín 2015). This represents an unknowable loss and highlights the importance of foregrounding those non-male voices that do exist in the collection. Moreover, if 'the Anthropocene must be apprehended in the specificity of its impacts in different locations over time rather than in terms of undifferentiated, systemic flows that describe much and explain little,' the regional specificity of this collection is of much relevance (Cronin 2017, 17). Ní Mhíonacháin was born on the Beara peninsula in County Cork in 1861 and lived there until her death in 1957, inheriting knowledge that was passed down intergenerationally (Ní Mhíonacháin, Ó Murchú and Verling 1999, 12). Though the stories relate to a small corner of the world, they come into contact with, and relate to, global flows. As a peripheral region of empire, the Beara peninsula fits Klein's definition of sacrifice zones as areas that 'don't count', which function as 'disposable peripheries to glittering (imperial) centres' (Klein 2015, 225).

Despite its remoteness, evidence of empire is scattered throughout Beara. The English maintained a naval base at Berehaven until after the 1938 Anglo-Irish Trade Agreement. The peninsula was badly affected by the Famine - from a peak of almost five thousand in 1841, the population of Cill Chaitiarn, the townland in which Ní Mhíonacháin was born, fell to less than eighteen hundred by 1926 (All-Island Research Observatory 2016). Today, it is home to just eight hundred people (Central Statistics Office 2016). A similar pattern can be observed in terms of language use. Though at the time of independence in 1922 the majority of the population was still Irish speaking, in the latest census just 4% reported that they used Irish regularly outside of the education system (Central Statistics Office 2016).[3] These precipitous declines can be attributed to imperial capitalism, which created the conditions for the Famine,

[3] This figure is a combination of those who, according to the 2016 Census, reported speaking Irish daily or weekly outside of the education system.

before introducing an industrialised farming system that required less labour and systemically exported profits from the region.

Ní Mhíonacháin represents an example of how wider structures affect individual lives. Of her twelve children who reached adulthood, only two remained in Ireland, and the economic and social conditions which led to the decline of Irish as a vernacular in this region meant that she did not pass on the language to her own children (Ní Mhionacháin, Ó Murchú and Verling 1999, 23). This was likely influenced by her own experience with the school system. She recalls 'fad a bhíos-sa ar scoil ní raibh focal gaelainne á labhairt agam' ['While as I was in school I didn't speak a word of Irish'] even though 'bhí morán ag teacht gan dabht na raibh aon fhocal Béarla acu ach Béarla briste' ['without a doubt there were many who came with little or no English'] (Ní Mhíonacháin Ó Murchú and Verling 1999, 76). The interconnection between colonial laws decreed from distant London, which in the late nineteenth century would have taken a week of travel to reach Beara, and Ní Mhíonacháin's personal life represents what Rob Nixon calls 'slow violence' (2013, 2). In other words, Ní Mhíonacháin became a personal victim of colonialism, not through direct means, but through a process of erosion. Slow population decline and the decision to raise children in one language over another are barely perceptible events when viewed individually, but together they accumulate to an inventory of losses whose impacts spread well beyond the periphery.

In order to place Máiréad Ní Mhíonacháin's folklore in the context of the Capitalocene, attention will now be drawn to Beara's past as a centre for copper mining. Though the coast and mountains are quiet today, with little economic activity outside of agriculture, the area would have been full of human activity when Ní Mhíonacháin was young. Allihies, twenty kilometres west of Ní Mhíonacháin's home, was once a major centre for copper extraction. In the mid-nineteenth century, twelve hundred people worked in its mines, extracting wealth from the surrounding landscape (O'Connell 2009, 9). The ghosts of ruined pumphouses and mineshafts remain, and a decaying network of tunnels led to a sinkhole in 2018. The industry had little benefit for local people, as the copper was sold for use across the British Empire and much of the profit kept by owner John L. Puxley (O'Connell 2009, 9). These mines existed as a patch of the Capitalocene and can be understood as a microcosm of settler/native tensions on the edge of Europe. Leadership positions were given to Cornish miners, who enjoyed far better pay and housing conditions than the Irish miners (O'Connell 2009, 11). Divisions of language (between English and Irish) and religion (Methodism and Catholicism) exacerbated such tensions and led to strikes in 1868 (O'Connell 2009, 11). Ultimately, both Cornish and Irish miners lost out as cheaper copper from Chile rendered the mine unprofitable and led to emigration to mining towns (notably Butte in Montana, US).

Beara's industrial past is present in *Béarrach Mná ag Caint* in several ways. Two of Ní Mhíonacháin's sons left for Butte, Montana in the 1880s and never returned, and there is evidence in her folklore that older herbal remedies were adapted to industrial illnesses (Ní Mhionacháin, Ó Murchú and Verling 1999, 24). The interaction between capitalism, folklore, and non-human agents in Beara is best shown through a section exploring uses of the herb camomile. Ní Mhíonacháin explains how wild camomile was harvested, dried and brewed into a tea (Ní Mhionacháin, Ó Murchú and Verling 1999, 100). This was 'go maith don té go

mbeadh *decay* air' [good for someone who was suffering from decay]. Decay here means tuberculosis that was acquired through breathing particulate-heavy air in the mines. Though the mines in Allihies closed when Ní Mhíonacháin was a child, this shows that people in the area suffered from its aftereffects for decades to come. The illnesses suffered by former miners underline Beara as a site of the Capitalocene and represent another example of Nixon's 'slow violence'. Returning to Beara as a 'patch' of the Anthropocene, one can understand the mine as an 'ecological simplification', where humans have impacted and attempted to control the landscape. Similarly, one can understand lung diseases such as tuberculosis as a 'feral proliferation', something caused by humans but that is out of their control. Though these lives and illnesses have long since vanished from the consciousness of the area, the ruins of the copper mines remain, occasionally breaking into the public consciousness when sinkholes form above former mine shafts. The physical remains of industry and Ní Mhíonacháin's account of how camomile was used for tuberculosis remind the reader of Beara's position within a global extractivist system, and underline how imperialism relied on its peripheries. If Beara was just another anonymous cog in an imperial economic system for copper traders, Ní Mhíonacháin's personal life and herbal knowledge underlines Tsing's statement that 'none of us live in a global system, we live in places' (2016, 3). That is to say, to understand the system, it is necessary to understand the local components, and the tangled web of relations within such areas.

It is not just the industrial scape that should be remembered when looking at Beara as a patch. Though the modern day is mostly devoid of forests and large mammals, this was not always the case. If today's bare mountains attract praise for their beauty, they also serve to hide former habitats by suggesting permanence, reflecting Tsing's assertion that 'admiring one landscape entails forgetting others' (2016, 6). Away from the mines, capitalism has had an immense impact on the physical map of Beara, with much of the original forest cut down during the early colonial period. Ní Mhíoncháin demonstrates this, recalling that woods used to stretch between Scoil a Chalaidh Ros and Droichead Á'Dhroim, but 'caitheadh iad a ghearradh mar bhíodar i ngátar na tine' ['they had to be cut down for firewood'] (Ní Mhionacháin, Ó Murchú and Verling 1999, 99). It is almost jarring to imagine forested valleys in an Irish context, but Ní Mhíonacháin's recollections underline that in many places this would have been the case. These forests were home to a wide range of species, and it is unsurprising, therefore, that in *Béarrach Mná ag Caint* references are made to 'cait crainn' ['pine martens'] and 'cait fhiacais' ['wild cats']. Indeed, at one point there seems to have been an abundance of the latter as 'síos fén reilg […] bhí an áit lán díobh' ['down by the graveyard […] the place was full of them']. However, 'chuireadar tine sa scairt […] chuir san deireadh leis' ['The bushes were set alight […] and this put an end to them'] (Ní Mhionacháin, Ó Murchú and Verling 1999, 99). The losses in this patch were reflected across the island. Though in a global context this may seem like a mere footnote, by connecting the local losses present in Ní Mhíonacháin's recollections to those in other Anthropocene patches, they amount to what is termed extinction.

While some species have long since vanished, that the pine marten and the wild cat are mentioned in folklore passed on in the late-nineteenth and early-twentieth centuries suggests that they were widespread until relatively recently. The pine marten, hunted nearly to extinction, has made a comeback in parts of Ireland, though it remains rare in West Cork, but the wild cat is an animal that has almost been forgotten. Indeed, early twentieth-century reports

from a naturalist question if there ever was such an animal in Ireland, suggesting that reported sightings may just have been feral housecats (Warren 1913, 94). However, given the continued presence of the wild cat in northern Scotland it seems unlikely such an animal would not have been present in Ireland. In addition, the use of the separate term 'cait fhiacais' by Máiréad Ní Mhíonacháin to indicate a tree dwelling, cat-like animal strongly suggests the presence of wild cats in Beara. Further evidence of the presence and importance of this species to the area is highlighted by the presence of a place called Lios na gCait [Fort of the Cats] (Ní Mhionacháin, Ó Murchú and Verling 1999, 144). That these cats had a long and significant enough presence to be recorded in placenames strongly suggests a native, wild species. As non-human narratives tend to be side-lined in grand historical ones, other sources are needed to bear witness to former habitats.

In an Irish context, placenames can be invaluable in this sense, existing as a ghost map of former species. In these names, the wild boar still haunts Ceann Toirc, the eagle Gleann an Íolair and the wolf Faol Droim. This highlights the connection between Irish as a language and the landscape it developed in - and its fundamental role in holding the patch together, connecting human, non-human and landscape through folklore and naming traditions. Much of this knowledge is under threat - colonialism in Beara cost the region its language and started a process of population decline which emptied townlands, shattered communities and closed schools, remapping the human landscape. In tandem, the natural landscapes lost the species which gave them their names. Even these are at risk of disappearing, as fewer people use such names and the reason behind them is forgotten. This forgetfulness, or perhaps even submission to the modern age shaped by imperialism, is not inconsequential, as it is not just the stories that are lost but the respect for and, crucially, knowledge of the land and the understanding of how interconnected humans are with the world around them. This loss of awe and respect for nature, embodied by seventeenth-century English philosopher Francis Bacon's belief that Earth should be 'knowable' and 'controllable', can be connected with the ongoing desecration of the natural environment that has given rise to the Anthropocene (Klein 2015, 226). Regardless of the motivation, if a community or individual respects and appreciates the natural world, they are less likely to destroy it.

Piseoga, Superstition, and the Need for Respect

While I have concentrated thus far on the physical and economic aspects of Beara as a patch, Ní Mhíonacháin's folklore also places a great emphasis on the non-physical and the supernatural as part of this world. I will now examine how *piseoga* (superstitions) and a belief in the supernatural helped maintain a respect for nature. One of the fundamental issues of the Anthropocene is alienation from the natural world; as Tsing notes, 'alienation produces the dilemmas we call Anthropocene' (2016, 4). That is to say that as humans have become more entangled with the rituals of capitalism, the link between humanity and the Earth has been weakened. If something feels outside one's lived experience, it is hard to care much about it. By this logic, if nature has been reduced to a pitiful aspect of the human experience, unable to 'compete' with neoliberal society, the fault lies with nature's vulnerability rather than humanity's consumption; it has been, to return to Moore, cheapened in all senses. Like a worker

who becomes too old or too sick to work, nature is constructed as something to be cast off, to be replaced by the next big technological innovation.

How can industrial humanity, bound mostly to the cities, re-learn respect for the rest of nature? The idea of fostering academic theory to help us understand the interconnected world – such as Deleuze and Guattari's 'rhizome' – is technically a respectable one (Deleuze and Guattari 2005). However, I would argue that it requires time and educational privilege to access, understand and internalise such philosophies. If a large part of the problem with climate change is that we 'can't see it, so we don't really believe it exists', then surely part of the challenge is to make its effects visible to us (Klein 2015, 223)? This is where it is interesting to look at how folklore deals with these relations, using the supernatural to maintain a sense of respect for life beyond the human. One of the recurring elements within these folklore tales concerning the supernatural is a sense of consequence. This can be seen in many stories. For example, there was a common belief that at midnight on Christmas Eve, water in wells would be turned into wine - a belief which echoes the New Testament 'Wedding at Cana' miracle. Though one would think that the appearance of free alcohol would see many people gathering at their nearest well, there were consequences for behaviour that broke the sanctity of Christmas night. In one story, it is told that one girl who looked in the well was turned into a 'tom aiteann' ['gorse bush'], while two enterprising men who planned to sell the wine left, never to be seen again.[4] Respect for traditions and for the spiritual world held importance, as a way to protect both the individual and surrounding societal structures.

In relation to the natural world, it is interesting to look at the story 'Máire Ní Mhurchú agus an giorré' ['Máire Ní Mhurchú and the Hare']**.** Máire Ní Mhurchú is a recurring figure in *Béarrach Mná ag Caint*, as someone who is able to slip between both the physical and otherworld and communicate with the 'daoine maithe' ['fairies', lit. 'good people'] (Ní Mhionacháin, Ó Murchú and Verling 1999, 123). The Irish language codifies this multiplicity of worlds linguistically with the words *ceantar* and *altar*. The former means 'area' in the sense of a physical space, while the latter also implies 'area', but one that is unseen - a reflection of this world. While *ceantar* and *altar* rarely came into direct contact with each other, the acknowledged existence of another, unknowable reality created a world of superstitions. The non-human world did not just encompass animals, plants and the physical landscape, but also spirits, fairies and the dead. If the Global North has forgotten how to deal with what once was with negative results - 'the refusal of the past and even the present will condemn us to continue fouling our own nests' (Tsing et al. 2017, 2) – then the society of Ni Mhíonacháin was almost the opposite of this, as there was an understanding that the past could erupt at any given moment through the supernatural. In the case of 'Máire Ní Mhurchú agus an giorré', a boy goes out on an errand and is followed by his family's hound (Ní Mhíonacháin, Ó Murchú and Verling 1999, 123). On the way, a hare jumps out of a hole and the boy sends the dog after it, leading to the animal being mauled by the dog. Once the boy returns home, he falls sick and nothing his mother does seems to revive him. The next day, the mother encounters Ní Mhurchú who laughs and asks why the boy set the dog on the hare explaining: 'Ní giorré a bhí ann ach seananbhean'

[4] See https://tuairisc.ie/o-dhuchas-biodh-nollaig-mhor-mhaith-dhuchasach-agaibh-bigi-lach-lena-cheile-agus-go-mbeirimid-beo-ar-an-am-seo-aris. (Article in Irish) (Accessed 9 January 2021).

['That wasn't a hare but an old woman'] (Ni Mhíonacháin, Ó Murchú and Verling 1999, 123). Ní Mhurchú tells the mother how to cure her son, but he learns a lesson as 'go dtí an lá a fhág sé Éireann chun dul go dtí Meirice níor chuir sé aon ghadhar i ndiadh aon ghiorré' ['until the day he left Ireland for America he never set a hound on any hare'] (Ni Mhíonacháin, Ó Murchú and Verling 1999, 123). As a type of miniature *bildungsroman*, this story teaches the reader that one should respect nature, as the consequences for intervening may be severe.

The ability for the hare to be an old woman also presents a rejection of 'Man' as an all-powerful force, removed from the rest of nature. Instead, the narrative places humanity within nature, demonstrating that we should respect it, because to do so is to respect ourselves. This story is the embodiment of Tsing et al.'s appeal that 'we must wander together through landscapes where assemblages of the dead gather with the living', recognising how this means observing the physical way marks of former inhabitants are left on landscape (2017, 5-6). In this light, Tsing, Mathews and Bubandt reference the ability of oak trees to regrow from stumps as an inheritance from when such trees were trampled by elephants (1999, 6). In Ireland, old mountain goats developed large, sharp horns to defend themselves from wolves; the non-human world was respected not out of romance, but of necessity. As folklorist Kate Chadbourne points out, 'rituals may evolve to help deal with fear and risk' (2012, 73). It is no surprise that it was in fishing communities on the Atlantic, where food production literally meant facing death on a daily basis, that *piseoga* were particularly enduring. Indeed, the extent of the entanglement between humans and the rest of nature was such that. in many such stories, 'human beings sometimes acted like the sea and sometimes like fairies' (Chadbourne 2012, 73). While the threat to human life on farms was perhaps less immediate, the connection between a healthy landscape and survival was evident.

The importance of livestock is shown by supernatural stories that feature cows. In one such tale, Ní Mhíonacháin recalls 'na ba ón saol eile' ['cows from the other world'] that were 'dath na bhfaca sé riamh' ['a colour he [the character] had never seen before'] (Ni Mhíonacháin, Ó Murchú and Verling 1999, 143). In opposition to Christian ontologies that place humans, and in particular Tsing's 'Man' on top of a hierarchy, the importance of other animals to the survival of the community meant that older, pre-Christian belief systems endured alongside Catholicism. It is unsurprising that the cow in particular is singled out as having an afterlife; though the centrality of beef and dairy to the Irish agri-food industry is an imperial inheritance,[5] the cow has long held an important role within Irish society. Indeed, one of Ireland's main epic cycles is titled 'Táin Bó Cuailgne' [The Cattle Raid at Cooley], and wealth was often measured in terms of livestock. Moreover, many words in Irish such as *bóthar* (road), *tairbhe* (productive) and *bóthain* (shed) derive from words for cow and bull. It is important to note that the cow was seen as a precious animal, and beef was generally eaten only on special occasions.

[5] Pre-Famine, Ireland was renowned for its soil quality and had a diverse agricultural output. However, the collapse of native systems of land management led to a depletion of soil nutrients and the replacement of small, mixed farms with large dairy and meat plantations (Slater and McDonough 2008). A century after independence, Irish agriculture remains locked into this system. The country produces nine times more dairy than is consumed internally and the sector relies heavily on the former colonial power, Britain, for exports. The environmental consequences are dire - according to a 2020 EPA report, only 22% of Irish river systems are of excellent quality (Environmental Protection Agency 2020).

Recalling past times, Ní Mhíonachain tells us that 'ní itheadh aon fhear na aon bhean ná aon bhá ná aon caora aon ubh i rith na bliana ach ar Domnach Cásca – bhí an saol bocht, go bhfóire Dia orainn' ['No man nor woman ate any cow or sheep or egg during the year except for Easter Sunday – life was poor, God protect us'] (Ní Mhíonachain, Ó Murchú and Verling 1999, 112). While this may be somewhat exaggerated, it highlights how scarce animal products were and the abnormality of modern life with its freely available and cheap meat and dairy.

This raises questions around why industrial humanity is 'willing to turn things into rubble […] destroy atmospheres and sell out companion species in exchange for dream worlds of progress' (Tsing et al. 2017, 2), when just a few generations ago, community beliefs largely prevented such actions. I would suggest that the structure of contemporary societies in late capitalism militates against the formation of rhizomic or flat ontologies because of many peoples' alienation from the means of production. The financial, human and environmental capital required to produce food is invisible, and so even if one knows, technically, that six eggs should not cost less than a euro, it is easy to ignore. In Cill Chaitiarn, when Ní Mhíonacháin was growing up, the immediacy of nature and the direct role people played in producing and supplying food would have made understanding such interconnections much easier. The challenge that is faced is understanding that just because something is not (immediately) visible does not mean it does not exist. As is shown above, the supernatural and spirit worlds once performed this role in rural communities, rendering the invisible visible and fostering an understanding of how the past and present interact with each other.

This is not to advocate for a wholesale return to such belief systems, which would likely be impossible in any case. However, Chadbourne's contention that folklore stories 'imply that the best way to remain safe is to conform to the rest of the community […] to observe its rhythms and patterns carefully' perhaps offers insights into how industrial humanity can develop a sense of environmental responsibility (2012, 79). *Piseoga* and belief systems were upheld through strong community structures in places such as Cill Chaitiarn, and their survival was ensured by an intergenerational system of knowledge transmission. The fracturing of these communities led to the demise of such systems of knowledge, and with them a loss of respect for nature and the past. Through reconstructing the supernatural, as well as the physical narrative of Beara as a patch, and connecting this with the community, perhaps environmental awareness can once more be embedded as a norm. This is just one local example, but it demonstrates the possibilities of utilising Tsing's patch theory to tell the stories of local places – and such stories will vary depending on the region. In the case of Beara, while people may scorn *piseoga* and the supernatural, these belief systems helped ensure balance in human/non-human relations for thousands of years, and so it would seem somewhat foolish to entirely overlook them in the search for post-Capitalocene ways of living with the planet.

Conclusion

This paper started by identifying the impossibility of dealing with the climate crisis in its global entirety, and that to attempt to do so, as is suggested by the term Anthropocene, tends to lead to disillusionment and a feeling of helplessness. To ameliorate this, Tsing's theory of a patchy Anthropocene and Moore's Capitalocene were suggested as ways to situate the climate crisis

in the local, through zoning in on specific places (Tsing's 'patches') and systems (capitalism) to read the global. By examining Anthropocene as a result of capitalism, the importance of imperialism to understanding the climate crisis is revealed. Folklore, I have argued, is an ideal test ground for such theories as it tends to be grounded in the hyperlocal, embodying intergenerational notions of place and community. Furthermore, as much of such knowledge is produced in minoritised languages, by non-elites, it offers a worldview that is somewhat apart from hierarchical Western Enlightenment thinking, even if it maintains a dialogue with such ideologies. Máiréad Ní Mhíonacháin's folklore, embedded within the Beara peninsula where she was born and died, helps demonstrate this, showing how imperialism interacts with the human and non-human cultures it seeks to suppress on the periphery of empire.

In this paper, I first examined how the industrial legacy of Beara, in the form of copper mines, has influenced Ní Mhíonacháin's folklore. This is most evident in the way that certain traditional herbal remedies were reappropriated to deal with the diseases of extractivism (in this case, respiratory illnesses caused by mining). Despite Beara's remoteness in relation to imperial centres of commerce, globalisation influenced the region strongly; the copper mines closed in 1868 due to price competition from Chilean mines. Though Ní Mhíonacháin never visited South America, her life would be directly affected by changes in the global trade system; all but two of her children would emigrate, and despite her own attachment to the Irish language (made clear by the fact this collection exists at all) she would raise her children in English. With few opportunities available in Beara, combined with the inherited trauma of famine and the systemic enforcement of the English language under colonial rule, I would argue she had little choice. By thinking of Beara as a patch of imperialism, local decisions such as raising a child in a certain language or using camomile in a specific way can be read as symptoms of a history of marginality. This way of thinking was then applied to the non-human impacts of imperialism (and therefore the Anthropocene) in Beara, as shown in Ní Mhíonacháin's work. Though Beara's modern landscape suggests permanency, *Béarrach Mná ag Caint* reveals a patch that has changed greatly. The deforestation of Ireland is recorded in the micro-level, in a muted statement that between two small places there was once woodland. Though this might appear insignificant in the scale of habitat destruction more generally, it has wider ripples. The presence, and disappearance of two species - the wild cat and pine marten - from Beara is noted by Ní Mhíonacháin, and these nineteenth-century regional extinctions echo earlier disappearances from this patch, most notably the wolf. If folklore is important in preserving the existence of humans almost erased by history, this is even more true in terms of the non-human. Though the memory of the wolf, for example, is well-preserved in Ireland, this is not the case with most vanished species. The wild cat has almost been forgotten as a once-native inhabitant of Ireland, but through examining Ní Mhíonacháin's recollections and drawing attention to Irish language placenames, its former presence is made clear. Her folklore serves therefore as a testimony, bearing witness to that which has been lost in the throes of extractivist imperialism and capitalism.

Much of this paper might seem like a record of decay and destruction, and folklore just a way to remember neglected histories. However, the final section of this paper suggests that elements of *béaloideas* might help us rethink human/non-human relations through examining the way superstition and a belief in the supernatural functioned to maintain a balanced relationship with

the environment. Though some *piseoga* existed to perpetuate oppressive societal structures, I have shown how many superstitions build respect for the non-human, and how a belief in the supernatural connected the past to the present, potentially fostering a desire to care for the environment for future generations. Such systems were intimately linked to the Irish language, and its decline, alongside emigration which meant that most of this knowledge has been lost. Though there is much to mourn, I wish to conclude this paper on a somewhat hopeful note - Ní Mhíonacháin's folklore is also a story of resistance. Despite centuries of oppression, the Irish language still exists as a community vernacular (even if not in Beara), and though the *béaloideas* tradition has largely vanished, its existence into the mid-twentieth century and the independent Irish state has meant that significant amounts have been preserved, and even digitised. In a local triumph for the non-human, the pine marten, almost extinct in Ireland half a century ago, has since returned and is credited with increasing red squirrel populations. Often, those with political power parrot the Thatcherite tenet that there is no alternative to the current economic system, but the wealth of alternative knowledge and ways of being that are carried in folklore across the world show that there are myriad ways of living with the Earth. By foregrounding Tsing's theory of the patchy Anthropocene, perhaps these zones of being can be knitted together to imagine a more caring future, in which all that live on this planet are accounted for.

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The Potential for a 'Tiger King Effect': Analysis of Public and Media Response to the Netflix Series *Tiger King*

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ABSTRACT

During the COVID-19 pandemic in 2020, Netflix aired the docuseries *Tiger King: Murder, Mayhem, and Madness*. This aligned with the United States declaring a national emergency and the beginning of stay-at-home orders. Netflix experienced a significant increase in viewership and a large number of responses to *Tiger King's* content from viewers and media outlets (e.g., Stoll 2021). In this article, we present an analysis of social media responses on the Netflix official Facebook page and online news articles associated with *Tiger King* published between 20 March 2020 and 30 March 2020. This thematic analysis reveals that public response was mainly related to expressions of sentiment, characters featured in the docuseries, and references to the show's content (e.g., specific scenes). We also identified character references, series content descriptions, and real-life events as themes within media sources. We conclude this article by discussing the potential for a 'Tiger King Effect' in the U.S. and the media's role in distributing human-animal related materials to the general public.

KEYWORDS

COVID-19 Pandemic, Exotic Animal Trade, Human-Animal Interactions, Tiger King Effect, Media Framing

Introduction

When, in 2020, a global pandemic led to a multitude of countries shutting down and implementing stay-at-home orders, television watching and social media use significantly increased (Hutchinson 2020; Perez 2020). The World Health Organization (WHO) declared the COVID-19 outbreak a pandemic on 11 March 2020, and within two days the Trump administration declared a national emergency in the United States (AJMC Staff 2020). The United States began issuing the first stay-at-home orders between March and April, with California becoming the first to do so on 19 March (Kates, Michaud and Tolbert 2020). During the pandemic, Netflix released the true-crime docuseries *Tiger King: Murder, Mayhem, and Madness*, which centres on individuals with eccentric personalities who were, and/or continue to be, involved in the exotic animal trade. According to several media outlets (e.g., Clark 2020; Pallotta 2020), *Tiger King* reached 34.3 million unique viewers and 19.0 million views per minute among U.S. audiences within its first ten days of streaming. *Tiger King* represents an interesting case study in relation to increased viewership of TV streaming services, media coverage, and social media use during a global pandemic.

Tiger King engaged the general public and media outlets in issues surrounding the private ownership of 'big cats' - those belonging to the genus *Panthera* - in the U.S., and how people and businesses utilise these animals for personal gain. Animal experts have long advocated for the discontinuation of the use of wild species in social entertainment venues due to welfare concerns (Brando 2016). Media characterisations of animal-related issues have tremendous impact on how the general public views animal welfare and advocacy (Molloy 2011). Shannon Grugan's media analysis of animal cruelty reporting in the U.S. found considerable variation in subjective reporting techniques (2019, 97). While the majority of their results revealed neutral framing by the media, other themes of condemnation, sympathy, and drama were also present.

Despite animal experts warning about the dangers of keeping large carnivores as pets, and the public becoming increasingly aware of animal welfare (e.g., Hampton and Teh-White 2019), the media does not necessarily highlight these problems when big cats are portrayed in popular culture. For example, Mike Tyson, a famous retired boxer, previously owned a tiger, and this relationship was publicised in the hit film *The Hangover* (2009). Other films with tiger-human interactions include *A Tiger's Tale* (2014), a children's movie about a child caring for a tiger cub, and *Life of Pi* (2012), in which a man forms a connection with a tiger. Depictions of big cats out of context (i.e., *ex situ*), and confined to a profoundly anthropocentric environment, may influence people's perceptions about the private ownership of nontraditional exotic animals and the cultural acceptance of their use in entertainment without animal welfare considerations.

Tiger King is not the first true-crime docuseries by Netflix to present real-life events using serial drama techniques (Dams 2019). Moreover, it is not the only Netflix docuseries to spark national attention from the general public and media outlets. Michael Krieger examined the Netflix docuseries, *Making A Murderer*, to evaluate Netflix's use of aesthetic interventions and streaming distribution in creating true-crime documentaries that stimulate public response to the featured content (2019, 107). According to Krieger, aesthetic interventions involve film creators assuming an active role, manipulating how a particular topic is presented (e.g., strategically placed footage), and promoting alternative narratives to instill reasonable doubt in the audience (2019, 108-110). In turn, what was once a small-scale problem (e.g., a local crime) quickly becomes a global phenomenon. Even further, Netflix users are no longer limited to a television set, and can essentially access the streaming platform anywhere with a mobile smart device such as a mobile phone or tablet. These multiple modes of Netflix consumption coupled with numerous social media platforms allow for larger audiences, and facilitate extensive discussions and participations by users (Krieger 2019, 114). Considering these findings altogether, one can speculate about *Tiger King's* potential for a domino effect leading to a societal shift in the perception of treatment of big cats in America - what we call the 'Tiger King Effect'.

Prior to *Tiger King*, the U.S. had already begun to experience changes in policy about, and public reception of, captive wildlife. For example, *Ringling Brothers Circus* closed in 2017 due to declining ticket sales which were reflective of the general public's disapproval of wild animal performances (e.g., Ellis-Petersen 2017). Another example is what has been termed the 'Blackfish

Effect'. CNN's documentary *Blackfish* (2013) exposed the challenges of keeping captive marine mammals and their use in human entertainment. Like *Tiger King*, the public responded to *Blackfish* via social media, and the film attracted considerable media coverage (e.g., Chattoo 2016).

Since its release in 2013, *Blackfish* has led to corporate, legislative, and regulatory changes of captive marine mammal management (Parsons and Rose 2018, 75). For example, Southwest Airlines discontinued its partnership with SeaWorld in 2014 (Kumar 2014). Following suit, National Football Leagues (e.g., Miami Dolphins) also ended their associations with SeaWorld (Joseph 2015; Koerner 2014). Due to declining ticket sales and social pressures, SeaWorld ended its captive orca breeding program in 2016 (Jamieson 2016). In 2017, the Orca Responsibility and Care Advancement Act amended the Marine Mammal Protection Act by prohibiting orca breeding for public consumption, and phasing out captive orca populations throughout the U.S.. While *Blackfish* and *Tiger King* are documentaries portraying a human-animal conflict, *Blackfish* strictly focused on the animal welfare issue (i.e., the animal's perspective), while *Tiger King* focused on the human characters (i.e., followed human narratives). Thus, *Tiger King* may not have the same outcomes as *Blackfish*.

We define the 'Tiger King Effect' as an observable cultural change, in which consumption of the *Tiger King* series leads to shifts in public perception of how captive big cats are to be managed. Due to this change in perception, agencies involved with captive big cats will have to adapt their operations to meet public expectations, and government agencies will be pressured to change legislation about big cat private ownership. At the time of writing, a 'Tiger King Effect' has yet to be observed, and our goal is to document and explore initial responses to *Tiger King's* content. We focused on three research objectives to determine: (1) how the public responded to the docuseries *Tiger King*, (2) how the media framed content from *Tiger King*, and (3) whether public and media reactions aligned. To evaluate these questions, we conducted a thematic analysis of social media comments on Netflix posts advertising *Tiger King*, and a review of news articles about *Tiger King*.

Inductive thematic analysis approach

This study used an applied thematic analytic process with an exploratory and grounded theory methodology (Guest, MacQueen and Namey, 2012a, 8) to address our objectives. A passive analysis was used to collect publicly available data from the Netflix Facebook page to evaluate public responses to the docuseries *Tiger King*. The official Netflix Facebook page was selected as social media outlets provide a plethora of information from a diverse population (Franz et al. 2019). More specifically, Facebook is the most popular social media in the U.S. with approximately 69% of adults and 51% of teens regularly using the platform (Gramlich 2019).

Tiger King was reportedly the most watched show on Netflix in its first ten days (Pallotta 2020). Netflix posted two *Tiger King*-focused posts during this timeframe: 20 March 2020 (the day it aired) and 30 March 2020. The 20 March 2020 post advertised the docuseries' trailer, and was captioned 'you have never met anyone quite like Joe Exotic and you've never heard a story quite like Tiger King'. Comments from this post were retrieved for analysis on 12 December 2020, by

which time the post had attracted 1900 comments, 1061 of them publicly viewable. The post on 30 March 2020 was titled 'Tiger King's 5 Biggest WTF Moments', and included a compilation video using selected scenes from the series. Comment data were retrieved on 22 October 2020, when the post had 4500 comments, 3237 of these publicly viewable. For both posts, 'Most Relevant' comments were selected to retrieve data, and the 'View More Comments' link was selected until Facebook gave the warning 'Most Relevant is selected, so some comments have been filtered out'. The 'Most Relevant' comments option is a Facebook algorithm that ranks user comments based on popularity (e.g., user reactions such as 'liking' the comment) and its relevance to the post (e.g., automatic removal of spam). This option is useful for viewing comments on popular Facebook pages, like Netflix, that have large followers (see Facebook support 2021 for further explanation). In addition, these algorithms are unpassable (see 'Data collection limitations' section below). Collectively, we were able to use 486 social media comments for analysis.

To accomplish our second objective, news articles published in English and by U.S.-based sources between 20 March 2020 and 30 March 2020 were collected by searching the phrase 'Tiger King' using the Google News tab. Sources outside the U.S. were excluded - as *Tiger King* follows U.S. citizens operating within U.S. jurisdiction, our theoretical framework relies on U.S. studies, and algorithms used by social media and search engines are based on user location. The results included a sample of forty-seven news articles that mentioned the docuseries *Tiger King*. Table 1 lists news articles reviewed for analysis, their source, and the extent to which *Tiger King* was discussed in the article.

Data collection limitations

A limitation that should be acknowledged is the sampling techniques used for data collection. As previously mentioned, search engines (e.g., Google) and social media companies (e.g., Facebook) use algorithms to select the 'most relevant' materials to a given user (Brake 2017, 26). This technique may have allowed selection bias. However, this strategy is reflective of how the general public is exposed to the content we are analysing. Moreover, there are no methods to by-pass these 'gate-keepers' of information (Brake 2017, 27).

Table 1. News articles, date of publications, source, and relevance to 'Tiger King' docuseries content used for media analysis.

Article Title and Author	Date Published	News Source	Relevance
'Tiger King, now on Netflix, is 7 scattered but engrossing episodes of WTF' (Wilkinson 2020)	20/03/20	Vox	Main Topic
'"Tiger King," about failed murder plot involving Florida's Big Cat Rescue, is now on Netflix' (Roa 2020)	20/03/20	Orlando Weekly	Main Topic
'How the Tiger King Filmmakers Infiltrated the Seedy Underbelly of America's Sketchiest Zoos' (Bruney 2020a)	21/03/20	Esquire	Main Topic

Article Title and Author	Date Published	News Source	Relevance
'"Tiger King": Joe Exotic's journey from big cats to the Big House after murder for hire' (Jensen 2020)	24/03/20	USA Today	Main Topic
'Your Guide to Netflix's Absolutely Wild New Docuseries *The Tiger King'* (Vaynshteyn 2020a)	24/03/20	Refinery29	Main Topic
'OKC zoo issues statement after Netflix release of "Tiger King"' (Butler 2020)	24/03/20	News Channel 8 Tulsa	Main Topic
'What to Watch After You've Seen "Tiger King" on Netflix' (Saperstain 2020)	25/03/20	Variety	Sub-topic
'Tiger King: Murder, mayhem and madness | Official Trailer | Netflix' (The News-Herald 2020)	25/03/20	The News-Herald	Main Topic
'Here's What Happened to Kelci Saffery after "Tiger King"' (Freedman 2020)	25/03/20	Men's Health	Main Topic
'What is "Tiger King" and why is everybody watching it right now?' (Kacala 2020)	26/03/20	Today	Main Topic
'"Tiger King" star Joe Exotic files $94M lawsuit, wants presidential pardon' (Denney 2020)	26/03/20	New York Post	Main Topic
'Netflix "Tiger King": Joe Exotic loves new fame even in prison' (Kaufman 2020)	26/03/20	Los Angeles Times	Main Topic
'I Clicked and Seven Hours Passed: Netflix's "Tiger King"' (Syme 2020)	26/03/20	The New Yorker	Main Topic
'Big Cats, Fragile Egos: How Southern Patriarchy Creates Netflix's Tiger King Chaos' (Adams 2020)	26/03/20	Consequence of Sound	Main Topic
'Carole Baskin Responded to Netflix's *Tiger King* – She's Not Happy' (Vaynshteyn 2020b)	26/03/20	Refinery29	Main Topic
'The Private Zoos on Netflix's Tiger King Exist Because of These U.S. Exotic Pet Ownership Laws' (Bender 2020)	26/03/20	People	Main Topic
'Jared Huffman enjoys '30 seconds of fame' in Netflix's "Tiger King"' (Schneider 2020)	26/03/20	Times Standard	Main Topic
'Who Is Former Drug Trafficker Mario Tabraue From Joe Exotic Docuseries And Where Is He Now?' (Brogle 2020)	26/03/20	Oxygen	Main Topic
'Netflix's "Tiger King" is the show that's getting us through quarantine' (Daley 2020)	27/03/20	Boston Globe	Main Topic
'Joe Exotic's Homemade Zoo Had 90 Tigers Before He Was Brought Down By a Murder Plot' (Bruney 2020b)	27/03/20	Esquire	Main Topic
'Double Feature: "Tiger King": What the Hell Did We Just Watch?!' (Truong 2020)	27/03/20	Our Community Now	Main Topic
'Eagles' Lane Johnson talks social distancing workout recovery, Netflix's "Tiger King"' (NBC Sports 2020a)	27/03/20	NBC Sports	Sub-topic
'5 things to know about Netflix's 'Tiger King'' (Buffa 2020)	27/03/20	WKYC Studios	Main Topic
'17 iconic lines from Netflix's bonkers "Tiger King" that'll soon be on t-shirts' (Berkowitz 2020)	28/03/20	Fast Company	Main Topic

Article Title and Author	Date Published	News Source	Relevance
'Corn Nation True Crime Series Night: Tiger King' (Gerhart 2020)	28/03/20	Corn Nation	Main Topic
'"Tiger King" Ranks as TV's Most Popular Show Right Now, According to Rotten Tomatoes' (Spangler 2020)	29/03/20	Variety	Main Topic
'Gardner Minshew posted the perfect "Tiger King" joke on Instagram' (McKenna 2020)	29/03/20	USA Today Sports	Sub-topic
'Jeff Lowe of "Tiger King" wanted attraction in downtown Las Vegas' (Katsilometes 2020)	29/03/20	Las Vegas Review-Journal	Main Topic
'Christian Yelich posted a mashup of his face with Joe Exotic's, and . . . it will haunt you' (Radcliffe 2020)	29/03/20	Milwaukee Journal Sentinel	Main Topic
'"Tiger King" is the weird docu-series distraction we can use right now' (Lowry 2020)	29/03/20	KSL News Radio	Main Topic
'Yes, a "Tiger King" personality shared the stage with Britney Spears at the 2001 VMAs' (Trepany 2020)	30/03/20	USA Today	Main Topic
'Saturday Night Live's Kate McKinnon to star as Carole Baskin in new series based on "Tiger King"' (ALT Producer (2020)	30/03/20	Radio.com	Main Topic
'Tiger King star Jeff Lowe hires Instagram model as nanny' (Jankens 2020)	30/03/20	Radio.com	Main Topic
'Netflix Docuseries 'Tiger King' Reigns Supreme in Era of Social Distancing' (CBS Los Angeles 2020)	30/03/20	CBS Los Angeles	Main Topic
'"Tiger King" subject Joe Exotic files $94-million lawsuit over his prosecution' (Associated Press 2020)	30/03/20	Los Angeles Times	Main Topic
'Turpentine Creek Wildlife Refuge speaks out regarding 'Tiger King' series on Netflix' (Higgs 2020)	30/03/20	KNWA Fox 24	Main Topic
'Act 3 Podcast: Tiger King, the Platform, and Furiosa Casting News' (3 WTKR 2020)	30/03/20	3 WTKR	Main Topic
'Bob Thompson: "Tiger King" is First Pop Culture Masterpiece in the Age of Coronavirus' (Thompson 2020)	30/03/20	WGBH	Main Topic
'Tiger King' Joe Exotic files $94 million federal lawsuit' (News 5 Cleveland 2020)	30/03/20	News 5 Cleveland	Main Topic
'Tiger King's Joe Exotic Files $94 Million Lawsuit Against US Government' (Kaye 2020)	30/03/20	Consequence of Sound	Main Topic
'Former Blackhawk Daniel Carcillo has a question for Netflix's 'Tiger King' Star' (NBC Sports 2020)	30/03/20	NBC Sports	Main Topic
'"Tiger King" Has an Unexpected Connection to "Uncut Gems" Directors Josh and Benny Safdie' (Levine 2020)	30/03/20	Pop Culture	Sub-topic
'Morning brief: Tiger King star has solar installed, 260 MW on a fishery in China' (Sylvia 2020)	30/03/20	PV Magazine	Sub-topic

Article Title and Author	Date Published	News Source	Relevance
'Pittsburgh has a "Tiger King" mural' (Limberg 2020)	30/03/20	Radio.com	Main Topic
'A journal, day 13: 'Tiger King' and feeling better' (Kolker 2020)	30/03/20	Wood TV	Small Mention
'Detroit Red Wings' Dylan Larkin doing fine during NHL break; yes, he's seen "Tiger King"' (St. James 2020)	30/03/20	Detroit Free Press	Sub-topic
'Petros Papadakis talks college football, Tiger King documentary and broadcasting' (Canzano 2020)	30/03/20	The Oregonian	Sub-topic

Data analysis

Social media comments and webpages were saved as reader view PDF documents. Data content was imported and reviewed using ATLAS.ti 9 for iOS operating system. Data analysis was completed following an inductive approach in which all social media comments and news articles were coded based on the content alone and not using predetermined themes (Guest, MacQueen and Namey 2012b, 89) and was completed as follows:

> Initial Analysis: The entire dataset was reviewed to develop a comprehensive understanding of its content and to generate broad themes. During this step, social media comments and quotations from news articles related to *Tiger King* were highlighted for further analysis. Then, one author applied broad themes to the data set for the other author to review. Both authors collaboratively discussed themes, associated quotations, and how to split themes into narrower codes.
>
> Coding: Following the initial analysis, one of the authors split broad themes into narrower code groups and coded the entire dataset. Then, the other author reviewed the initial code assignment. When each author had reviewed the dataset and initial code assignments, notes were compared, and code assignments were finalised. Codes and their definitions are reported in Table 2.
>
> Interpretation: Collectively, both authors identified themes and patterns and the results section presents these joint interpretations. This assessment was done within the context of this study's objectives. Social media comments and news articles were reviewed to determine their respective themes. Then, public response and media framing were compared to identify similarities and/or differences.

Table 2. Thematic codes, sub-codes, and associated definitions applied to social media comments and news articles.

Theme	Sub-code	Definition
Animal Organisation	N/A	Reference made to any animal related organisation such as Big Cat Rescue, PETA, or other agencies. This can be in the form of directly stating the organisation's name or indirectly referring to it (e.g., Joe's zoo).

Theme	Sub-code	Definition
Animal Reference	N/A	Reference made to any animal such as tiger when Animal Organisation, Animal Trade or Animal Welfare was not used.
Animal Trade	N/A	Any reference to the exotic wildlife trade and practices associated with the industry. This can be in the form of a direct reference or indirect (e.g., breeding for fur).
Animal Welfare	Negative	Theme related to unfavourable conditions, treatment, and care to animals.
Animal Welfare	Positive	Theme related to favourable conditions, treatment, and care to animals.
Character Reference	Ambiguous	Sentiment directed towards a human character that could have more than one interpretation of being positive or negative.
Character Reference	Animal Relationship	Reference to a human character and their relationship with an animal. This can be in the form of a description (e.g., cat-lover) and/or as an expression of self-identity (e.g., animals as status symbols).
Character Reference	Description	Detailed information about a human character.
Character Reference	Negative	Unfavourable sentiment expressed towards a human character.
Character Reference	Pop Culture	Reference to a human character and their likeness to a real-life pop culture icon. This can be in the form of comparing a *Tiger King* character to an actor or casting recommendations for future *Tiger King* productions.
Character Reference	Positive	Favourable sentiment expressed towards a human character.
Character Reference	Sympathy	An expression of sensitivity, pity, and/or empathy towards a human character.
Content	Reference	A reference to or a description of a specific scene, line, or sub-story within the docuseries.
Content	Series Summary	A general overview, summary, or description about the docuseries. These themes are related to what the series is about, not its purpose.
Content	Underlying Message	Statements made about the docuseries' ultimate purpose, take-away message, and what the series does. These are references to the show's purpose and are not statements referring to what the show is about.
COVID-19	N/A	Comments made directly or indirectly about the COVID-19 pandemic. Direct references are those in which the article or commenter state words like 'COVID' or 'pandemic'. Indirect references are statements about events related to the pandemic. Examples include 'being stuck at home', 'toilet paper shortage', or any other circumstances that are related to the pandemic.
Illegal Activity	N/A	Reference made to illegal activities such as murder, drug use, etc. This can also be in the form of insinuating a human character was a part of illegal activities.
N/A	N/A	Content unrelated to *Tiger King*
Other Source	N/A	A social media user and/or news article providing another source for others to learn about *Tiger King* or related topics. Examples include podcasts, websites, or other documentaries.
Real Life Event	N/A	References made to events that occurred in reality but may or may not have been covered in the series. These can be personal accounts from social media users (e.g., 'I met Joe') or additional information provided

Theme	Sub-code	Definition
		about the series' characters, content, or related materials (e.g., update on lawsuits, legislation passed since show aired).
Sentiment	Ambiguous	An expression of an opinion that could have more than one interpretation of being positive or negative.
Sentiment	Negative	Unfavourable reviews by those who have watched or have not watched a portion or all the series.
Sentiment	Positive	Favourable reviews by those who have watched or have not watched a portion or all the series.
Sentiment	Unreal, Crazy, Shock	Any expression of an opinion that reviewed the docuseries or related content as being unrealistic, unbelievable, crazy, insane, or any other metaphoric expression (e.g., train wreck).
Tagged Friend	N/A	Social media users tagging friends in a comment to draw their attention to the Netflix post.
Watching	N/A	Comments indicating the user or author was still in the process of watching the docuseries.

Results and discussion

Public response

Collectively, public responses on Netflix posts about *Tiger King* reflect a positive reception of the docuseries. Many Facebook comments were related to sentiment (56%), in which users voiced various opinions about the docuseries. Of these, most expressed favourable reviews (31%) or made ambiguous statements that could be interpreted as either positive or negative (27%). Ambiguous statements often co-occurred with another theme, as in the following statement:

> Watching it now, as a veterinary technician who often works with wildlife and exotics it's infuriating to watch. But also a whirlwind of characters and stories.

Clearly, this user is expressing a negative sentiment regarding the animal-related content. However, it is difficult to determine if they are unhappy with the content portrayed, as compared to the quality of the docuseries itself.

Public comments also articulated feelings of shock and made metaphorical statements about these sentiments (28%). For example, one comment read:

> One of the most amazing train wrecks of humanity I have ever seen! It was shocking, disgusting, and strangely delicious. The sheer amount of What The Fuckery in this docuseries was fantastic!

This type of statement is reflected in other user comments, in which they referred to *Tiger King* as a 'train wreck' or 'dumpster fire'. While these types of statements may be interpreted as unfavourable, as the previous example shows, other contexts indicate the commenter enjoyed watching the documentary.

While positive, ambiguous, and shock-related themes were most frequent, other users shared negative sentiments about the *Tiger King* content too (13%). When people made adverse

statements about the series, it often occurred alongside other themes related to a character, animal welfare, or illegal activity. One comment encompassed multiple themes:

> Gross documentary and sad. All this media and no one helped the 'big cat industry'.. [sic] it's all focused on a hillbilly. It's sad. Don't think it deserves the hype. Next!

The second most common theme found in Facebook comments was character references (34%). When users were referring to someone depicted in *Tiger King*, they were largely doing so to express a negative attitude towards the character (57%). As previously shown, unfavourable opinions were often accompanied by other themes. However, others succinctly stated a distaste towards a particular character such as, 'Why did I come away disliking self righteous [sic] Carole the most', while others shared longer comments:

> Carol [sic] Baskin is the most unlikable person in this show and that's saying a lot because every single person in this docuseries is shady as [emoji] and gross as well. Her husband better watch his back and stay away from those tiger cages.

Other character references came in the form of Facebook users comparing characters to famous people (15%) or were ambiguous in this sense (14%). Some examples include 'So Joe Dirt became Joe Exotic.', 'What the hell happened to Kid Rock?', and 'Brett Michaels has come a long way'.

The third major theme found on the Netflix Facebook posts was people referencing specific content from the *Tiger King* docuseries (22%). The overwhelming majority of these statements were indicative of a specific scene (85%). For example, several comments referenced a jet-ski scene (e.g., 'That jet ski scene was the best part of my weekend. Don't judge it.') and others referenced songs performed by a character within the docuseries (e.g., 'So good. The song "her [sic] kitty kitty" had me rolling.'). Others were Facebook users asking others about the content. One user asked, 'How in gods [sic] name can someone own 227 tigers?!', and another inquired, 'Can someone explain to me how Jeff Lowe just came in and took over?'.

Media response

As shown in Table 3, news articles centering on Netflix's docuseries *Tiger King* most often discussed the people depicted (94%). Of these, 86% were providing character descriptions, 47% used unfavourable language towards or about the characters, and 45% were describing the character's relationship to animals. The following quote demonstrates a character reference that is both descriptive and negative:

> Carole Baskin is a shady character I can't trust. While Joe is painted as both the protagonist and antagonist at times through this series (for good reasons), it's Baskin who seems to be hiding something [….] Baskin was the park owner who used to breed young tigers and engage in activities that she deems criminal practice from Exotic, but now has turned over a new leaf. (Buffa 2020)

In addition, most character descriptions referred to Joe Exotic as being the main character of the show:

> Tiger King follows the rise and fall of an eccentric Oklahoma zoo entrepreneur known as Joe Exotic [....] a gay, polygamous, gun-toting libertarian with a platinum-blond mullet [...]. (Syme 2020)

Character-related themes that discussed a human-animal relationship were either made in the context of the character as a 'big-cat lover' or, of course, as the 'Tiger King'. Interestingly, some character-related human-animal references articulated the big cats as a status symbol:

> I would say the big cat people see tigers as sort of a status symbol, as you would a Ferrari or fancy car collection. They have the animals to elevate their position. It makes them special. (Kaufman 2020)

The second major theme present in the reviewed news articles was content (87%). Of the 41 articles that discussed the content of *Tiger King*, 88% provided a summary of the series, 59% referenced a specific scene, and 37% discussed the docuseries' purpose (i.e., the underlying message). Statements related to series summary ranged from short statements (e.g., 'Exotic animals. Conartists. Killers. Country singers.', Buffa 2020) to more detailed summaries such as the following:

> It's about an [sic] guy from Oklahoma who likes tigers. He has some pretty fun adventures from what I've heard so this should be enjoyable for all. Also, murder for hire which isn't good but adds to the story line. (Gerhart 2020)

Articles that discussed specific scenes also did so to provide a more detailed series summary (e.g., 'Exotic, who was starting to unravel at this point, allegedly tried to pay several hit men to kill Baskin.' Vaynshteyn 2020b). Content references were also used to convey *Tiger King's* purpose:

> While there is plenty to unpack [...] including a murder-for-hire plot, the series begins with a startling figure: there are more captive tigers in the United States than wild ones left in the world. Public zoos [...] account for some of the captive tigers [...] but thousands of others, as Tiger King shows, are kept by individuals as exotic pets or are living in privately-owned zoos (also known as roadside zoos). (Bender 2020)

The third dominant theme was news articles discussing real life events (74%) that were not a part of the docuseries. As defined in the codebook (see methods), these themes either provided an update to the characters like Joe Exotic (e.g., '"Tiger King" star Joe Exotic files $94M lawsuit, wants presidential pardon', Denney 2020) or Carole Baskin (e.g., 'Carole Baskin Responded To Netflix's Tiger King - She's Not Happy', Vaynshteyn 2020b). News articles also provided celebrity responses to the docuseries, such as Dylan Larkin of the Red Wings hockey team saying:

> I'm not a big fan of big captivity [sic] and some of the behind-the-scenes stuff. I'm glad it's not my place to be as vocal about it as some people are on the show. It's just interesting, that's all I'm going to say. I wouldn't say cool. (St. James 2020)

Table 3. Frequency of coding themes and sub-themes in news article.

Theme	Total Documents with Theme	Sub-Theme	Total Documents with Sub-Theme
Animal Organisation	30	N/A	N/A
Animal Reference	14	N/A	N/A
Animal Trade	30	N/A	N/A
Animal Welfare	20	Negative	17
Animal Welfare	20	Positive	9
Character Reference	44	Ambiguous	15
Character Reference	44	Animal Relationship	21
Character Reference	44	Description	38
Character Reference	44	Negative	22
Character Reference	44	Pop Culture	9
Character Reference	44	Positive	3
Character Reference	44	Sympathy	3
Content	41	Reference	24
Content	41	Summary	36
Content	41	Underlying Message	15
COVID-19	23	N/A	N/A
Illegal Activity	33	N/A	N/A
N/A	6	N/A	N/A
Other Source	20	N/A	N/A
Real Life Event	35	N/A	N/A
Sentiment	33	Ambiguous	20
Sentiment	33	Negative	5
Sentiment	33	Positive	24
Sentiment	33	Unreal, Crazy, Shock	25
Watching	3	N/A	N/A

Comparative Analysis

Our thematic analysis revealed overlapping and differing themes expressed in social media comments and news articles about *Tiger King*. While the major theme present in Facebook comments was sentiment-related, 70% of the news articles also expressed an opinion or used language that was telling of the author's review about the series (Table 3). Both public and media

responses were mainly to express a sentiment of shock and/or to provide a positive review about the series' content. The shock value of *Tiger King* coupled with high approval could be indicative of the series' content having a lasting impression. As discussed above, unlike *Blackfish*, whose success is attributed to how the documentary framed its content (Waller and Iluzada 2020), *Tiger King* has entertainment value, which may or may not achieve similar outcomes as *Blackfish* (Yakimchuk 2020).

This analysis indicated the alluring narratives about the people portrayed in the docuseries as the source of *Tiger King's* entertainment value - and other themes implied popular culture surrounding them. This judgment is based on three observations. First, character references were major themes in both public and media responses. Second, Facebook comments referring to characters often compared characters to famous people. Third, both social media comments and news articles postulated what celebrity should star as those documented in *Tiger King* to the extent of one news article confirming a follow-up movie or show casting celebrities (see ALT Producer 2020).

Another subject prominent in both analyses, but in different forms, was references to *Tiger King's* content. When Facebook users mentioned *Tiger King* content, they were most often citing a specific scene. News articles referring to *Tiger King* often did so to frame the summary of the docuseries, with the use of scene references to support their summary. One glaring difference between public responses and media framing was related to *Tiger King's* objective. 32% of the news articles discussed an underlying motive, while only 2% of Facebook users referenced the docuseries' purpose. In the *Los Angeles Times* article, one reporter addressed the possibility that audiences are misunderstanding the series and asked *Tiger King* directors about viewers 'only focusing on the show's outsized characters' and if 'they are walking away with the wrong message?' (Kaufman 2020). Co-director Eric Goode responded by saying:

> We really struggled [...] trying to fit everything into this series [...] But it was hard with the tone and the direction the series ended up going in to put it all in. Of course, ideally, we want people to understand the themes without us spoon-feeding them.

And co-director Rebecca Chaiklin stated:

> We hope that people enjoy it, but we did want them to have a serious takeaway, and it is a bummer if they don't come away understanding that this is not the right way to treat these animals.

Some Facebook responses indicated there is a possibility this message resonated with viewers, with one commenter describing it as 'A great documentary exposing the crooks of the tiger trade'. In addition, other comments indicated an unfavourable review of the docuseries and criticised Netflix, saying 'Netflix could you please highlight the massive amount of animal cruelty that occurs? It seems the world has missed this important theme.' Another commenter directed their dissatisfaction towards the producers and stated:

> I'm still trying to work out what the producer hoped to achieve because instead of opening up people [sic] minds to the very oblivious [sic] animal abuse most viewer seems [sic] like the idea of a 20+ witch hunt and the chance to make crappy gifs.

The same *LA Times* article (Kaufman 2020) suggests a possible explanation as to why the characters themselves may have overshadowed the underlying message. When responding to Carole Baskin's criticism of the show as 'being salacious and sensational as possible to draw viewers', Goode said:

> Carole talked about her personal life, her childhood, abuse from her first and second husband, the disappearance of her ex [...]. She knew that this was not just about [...] it's not a 'Blackfish' because of the things she spoke about. She certainly wasn't coerced. The other thing I would say about all these people is that there was a lack of intellectual curiosity to really go and understand or even see these animals in the wild. Certainly, Carole really had no interest in seeing an animal in the wild [...]. The lack of education, frankly, was really interesting - how they had built their own little utopias and really were only interested in that world and the rules they had created.

Concluding remarks and future directions

At the time of writing, statistics reveal *Tiger King* as being among the top five most watched shows in Netflix's history (Bjornson 2021). Moreover, as alluded to in our results, reports outside of this analysis' timeline have confirmed more *Tiger King* material is to come (e.g., Day 2020). Although it is not yet clear if a 'Tiger King Effect' is to follow the release of the Netflix docuseries, recent events indicate the show may be influencing change in how people interact with big cats in the U.S. (Cohen 2020).

The Big Cat Public Safety Act was introduced into the U.S. House of Representatives on 26 February 2019 and did not pass until recently, on 3 December 2020 (see *Big Cat Public Safety Act H.R. 1380 (116th Congress) 2019-2020* for more legislative detail). The intentions of the Act are to limit those who can privately own big cats, such as African lions and tigers, in the U.S. It will also ban operations from allowing open contact between the general public and big cats (e.g., 'cub-petting'), a practice featured in the *Tiger King* series. It is speculated that *Tiger King* may have stimulated renewed interest in the bill (e.g., Rosane 2020). However, the Big Cat Public Safety Act is not the first of its kind as it, like the Captive Wildlife Safety Act of 2003, is meant to amend the Lacey Act which has been faced with numerous challenges (U.S. Fish & Wildlife Service 2007).

As with any research, there are limitations to this study that we must acknowledge. This paper cannot be used to make generalisations about the lasting impact *Tiger King* may have on society. Current research into events that stimulate changes in human-animal interactions (e.g., *Blackfish*) primarily focus on the result of the domino effect. This research, instead, has presented a snapshot to document the initial reactions to a documentary that tracks a true-crime event and demonstrates a problem with laws related to exotic pet ownership in the U.S.. Moreover, and as mentioned in our methods, our analysis was challenged with finding all relevant news articles and being able to use social media comments from Facebook. Future works may consider expanding the timeline of this analysis to allow for a larger sample size and incorporation of other social media platforms.

Follow-up methods may also consider a more active investigation in which people are surveyed about their attitudes and perceptions towards *Tiger King* and its content.

Netflix's docuseries techniques and streaming platform are paving the way for new trends in entertainment consumption and how the general public is learning about real-world occurrences. At present, research has acknowledged Netflix as a game changer in the entertainment industry (Krieger 2019). However, empirical research has yet to adapt media theory to streaming services' techniques. Our literature review and results indicate an important phenomenon is occurring in contemporary society and in how people are learning about appropriate human-animal interactions. Therefore, and especially considering the way that COVID-19 has contributed to increased social media use and more and more people turning to the media for factual information, we caution all media outlets to be mindful of how they are educating their audiences about appropriate human-animal relationships.

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The Affective Database: *Symulation* and Enacting Worldhood in the Film-worlds of Scott Barley

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ABSTRACT

This article offers an alternate evolution of Lev Manovich's (1999) concept of the database film, explored through the work of Welsh experimental filmmaker Scott Barley. Suggesting the existence of an affective type of database, this codifies their production as a form of ecological activism which phenomenologically affects viewers and creates a worldhood that each film inhabits. Viewers emerge as agential participants, which this article argues is an entanglement that occurs and continues long after the film's initial release. Barley's works often eschew formulations of humans, and instead invoke abstracted images of the world and wild animals, engendering an altered process of thought that attempts to avoid, reject and/or refute anthropocentrism. As Barley's work continues to catalyse considerations of darkness, time, space and Jean Baudrillard's simulation (1994), I argue that such films allow moments of stasis and stillness that are akin to death, bringing forth further considerations in viewer-participants about the world(s) they inhabit.

KEYWORDS

Database Films, Simulation, Struction, Scott Barley, Ecocinema

Introduction

> When we use language to describe, or explain an image, we are in a sense, objectifying it, and in turn, we are killing it. We kill its mysteries and silent beauty through our inane objectification. (Barley, *Notes On Cinema*)

Scott Barley is a Welsh experimental filmmaker whose work ranges from hyperkinetic two-minute short films, to six-hour marathons of unmoving still images. Although this article is written from, about, and perhaps for his work, the words quoted above ring particularly true here. Thus, where possible, I am not attempting to describe or explain Barley's images. His films are available, free, to anyone with internet access, and thus it does not feel exclusionary to leave this attempt out. Instead, I will think through what his images *can* do, different and distinct from assigning some description of what they *have done, do*, or *will do*. Barley's words, however, can be thought through and explained in conventional language. They form an inextricable, though not limitless, link to his visual work, providing not just contextual clues, but full philosophical elaborations on his filmmaking process and purpose. Though they are separate from his films, they exist with his visual work in this study.

Three Births

For Lev Manovich, the first birth of database cinema extends back to Dziga Vertov's *Man with a Movie Camera* (1929), though we can also think of its first birth as the moment Manovich published *Database as a Symbolic Form*, in which he described the rise of 'many new media objects [that] do not […] have any development, thematically, formally or otherwise, which would organise their elements into a sequence' (1999, 80). Non-linearity, and the existence of 'interface(s)' - different modes of involvement with a collection of media material - defined the database film. Since then, the definition has been revised several times, giving rise to accounts that obsess over structural features of the database, and taxonomical accounts that try in vain to categorise the types that exist. In many of these, data is framed as requiring organisation to create meaning, and therefore information. They theorise the communication of information as the ultimate goal of the database (Vesna 2007). This recalls Manovich, who sets narrative and database structures as opposing creative endeavours. Marsha Kinder refutes this, writing that these two endeavours are compatible and indeed 'crucial to the creative expansion of new media, since all narratives are constructed by selecting items from a database' (2003, 348). However, this does nothing to dispel the myth that the sole function of the database is to store, order and divide information. After all, narratives are communicated through information via what most scholars describe as the language of film.

That is not to say that these theories of database films are to be ignored or cannot be viewed positively. As a way of theorising the quickly changing landscape of digital media, the database film has been the catalyst of much more than just the digi-capitalist dogma of *meaning means information which informs value*. The growth of ecological and social concerns explored through this meta-genre has highlighted key problems with how the database is constructed, and how it is viewed. In its original form database cinema is the re-purposing, re-using and re-configuring of existing material to create new works, without the consumption of film stock or the purchase of expensive digital equipment emblematic of the 'monopoly relation to the earth that digital industries' corporate capitalism is trying to maintain' (Parikka 2015, 80). Despite the limits around which Manovich structured his definition, he did recognise that the database could create multiple interfaces to a singular collection of material. Not only this, but that there could be 'multiple trajectories through a database' (Manovich 1999, 87), where the interface and database remain the same, but the audience (or, indeed, algorithm) engage with them in different ways. The second birth of database cinema can thus be thought of as eco-cinematic: these are films that engage with environmental concerns, present alternatives to anthropocentrism, and transcend some of the ecological problems of filmmaking (MacDonald 2004; Willoquet-Maricondi 2010).

The smartphone and its relatively democratising quality in the production of media has been central to this - especially in the creation of database cinema. It is with the smartphone that Barley creates the majority of his work. Of course, Barley's films are not the only ones to be made on a smartphone, but his filmmaking process - which we have seen is important when considering database cinema - is unique to him. Barley shoots on his phone for months or years, creating a database of work for himself from which he later begins to form films. His films are

composed of layers of different footage - an upcoming work-in-progress features over eleven thousand shots displayed at once - and his films are keenly concerned with ecology, philosophy, and how we engage in the act of viewing films. Barley (*Notes On Cinema*) writes:

> I wonder whether we will eventually live utterly inside ourselves. It is not hard to imagine, as we sit, immersed in the cyberspace of our smartphones. Perhaps we will ultimately become the body without organs. The body without organs that Artaud and Deleuze proposed. Our body will be emptied, rendered void, it will be nothing but a husk . . . and then cinema will take its place.

This extract lays bare his preoccupation with the act of viewing and the relationship of the body to cinema.

It is here that I propose a third birth of the database, one that does not require the communication of information to be the defining purpose of its existence, nor that is limited by the ecological factors of its production. Instead, let us allow the creation of an *affective* database, which relies on the unthought, the non-thought, and the beyond thought of perception to be its method of communication. Not a database of information, but of feeling; of an 'immanent significance' (Merleau-Ponty 2002, 26**)** that allows meaning to be something other than a dry, information-sharing artifact that only holds value as such. This third birth, the re-birth, has already happened through the work of Barley, whose films avoid logic and contain the immanent significance that lends itself to affective encounters with a database film, not the 'using' of one. His work inherently rails against the idea of a structured database in lieu of the affective, the felt. Barley's database is one of darkness, simultaneity, the creation of film-worlds that manifest a slowing of the rhythm of semiocapitalism (which we will return to later) and present and engage us in non-human, post-anthropocentric worlds. Complementing its recycled nature, this essay will re-use and re-configure existing work on the database in the context of affectivity and film-worlds, to theorise this new database cinema through the examples present in Barley's output.

Struction and Entanglement

Manovich (1999) writes that the only way to create a pure database is to spatialise it. I do not want to give credence to the idea of purity as a pinnacle, since the very idea of a database that is pure exists only abstractly as an essence, but the idea is worth exploring nonetheless. Certainly, Barley engages in the spatialisation of his databases. In a self-conscious tension, he layers images of shot footage, photographs, and hand drawn pictures invisibly in his films, editing the seams out of the frame until we cannot tell which images make up 'the image' we can see, yet explicitly tells us he is doing so when discussing his work. In the viewing notes for his film *Sleep Has Her House* (2017), he writes that the film is 'akin to paintings that move, mixing live action, still photography, and hand-drawn images' (Barley 2017b). This heavily recalls Joret when he explores Bazin's views on cinema and painting. The media blur - particularly in the case of impressionist works by van Gogh. While watching the film, we cannot see where a photo begins, or where a phone-captured live-action shot ends. Instead, an overt, yet ambiguous, timespace is created in the visual database of the film. His work emerges from an existing database (and thus is a database film), as a database in itself, which contains

several other databases within it. Each image we see is a collection of multiple shots displayed simultaneously. We cannot tell where each image comes from, or when - one part could be several years old, while another could be hours; one part could be a shot of the natural world, the other a drawing. It leads us to what Jean-Luc Nancy and Aurelien Barrau would describe as 'the consideration of a struction: the uncoordinated simultaneity of things or beings.' (2015, 49). Manovich's 'pure database' is therefore one which *does not* place a communicable order or hierarchy on objects or information. It is a database we know exists yet, so far, cannot comprehend. The idea of a structure to the database is abandoned, and instead the affective database emphasises the limits of our perception through explicitly figuring that which we cannot figure - struction. This is not limited to a particular aesthetic experience. *Sleep Has Her House* is a slow, melancholic film featuring shots that are several minutes long. In its slow time it 'brings about a renewed awareness of temporality and the opportunity to imagine different worlds' (de Luca 2016, 42), whereas his film *Blue Permanence / Swan Blood* (2015a) is a six-minute short that crackles and bursts with hyperactive movement such that whatever images once constituted the database from which it emerged can no longer be said to exist independently, but instead bleed into each other, to the extent that we can no longer recognise anything remotely connected to our own perception.

Tiago de Luca said of slow time that it solicits a 'mode of spectatorship that reflects on its own phenomenology as a collective act of physical coexistence and lived experience in time' (2016, 42), an idea that Barley engages with directly. He tells us:

> my aim is to make you - the viewer - become the protagonist of the film, to be the avatar itself, wherein you are emblazoning yourself upon the images, through and into them, exploring its worlds, through darkness and light, along with me. (Barley, *Notes On Cinema)*

Despite clear instructions to anonymise the viewing space in which we watch his films (Barley instructs that they must be watched in complete darkness, at a low screen brightness, with headphones or surround sound), this is not an attempt to isolate the viewer, but rather to open them to an entanglement with the film and filmmaker. This is heightened further by the ambiguity of *Passing* (2013c) and *Closer* (2016a), visually arresting films that obscure their purpose. William Brown writes of entanglement that it arises when 'participation is required in the ethical process of choosing what to believe' (2018, 218). Barley's work would fit neatly into Brown's definition of non-cinema, where we realise that 'the film works on the spectator as the spectator is actively involved with the film' (2018, 48). Thus, we are entangled with the film, and it with us.

Barley can be said to entangle himself too. Brown also writes that 'to pick up a camera and to record is, in Barad's language, 'to acknowledge […] that one is becoming as the world is becoming, and that one is, therefore, involved in the creation of new worlds' (2018, 63-4). The creation of his own database of images leads Barley to become as his world becomes, and in the emergence of films from this database he is also involved in the creation of new worlds. These arise from the unique timespaces (or dreamspaces) his films create. They are film worlds in which 'what is constantly rekindled and renewed is the very possibility of the world - or rather the multiplicity of worlds.' (Nancy and Barrau 2015, 52). Each holds the possibility of

showing us, the viewers, new and exciting ways to perceive and see, to experience something beyond our usual perception. Each of Barley's films 'invoke worldhood in different ways. Their "ultimate referent" is not a thing or a place but a mode of involvement' (Pick and Narraway 2013, 32). Entanglement and the diegesis of the spectator become this mode of involvement, such that we are viewer-participants. The database itself becomes an involvement with the world. But to what do we refer when we refer to the world? And, following this, what then does 'worldhood' mean?

Worldhood, Unknowable

If each film creates its own film-world then they are each different to our own 'world'. Barley's films, especially those such as *Evenfall* (2015b), and *Hinterlands* (2016b), present worlds that are not only different to our own, but specifically embody animal or mineral perceptions. The unpredictable temporalities (featuring jumps, slips and pauses) and impossible visuals created from the layering of images recall worlds that feel alien rather than terrestrial. The act of perceiving becomes an unfamiliar one, and we lose the footholds of that which grounds us in our world - our senses. Though we can occasionally see an image of something we recognise in *Hinterlands*, the treachery of Barley's images creates a processual doubt in our thinking and before we know it, what we thought we had recognised is replaced by something altogether different. Anat Pick and Guinevere Narraway remind us that while 'animals' worlds are irreconcilably different, the fact that they all inhabit *a* world is not. This alone is a powerful appeal for a more-than-human conception of worldhood' (2013, 30). Our reconciliation of these unfamiliar territories comes from the realisation that, although we can never be 'part' of these worlds, we know that each being, each thing, is part of *a* world. The boundaries can be looked across, especially when we see that, as Barley himself writes, 'to truly submit to the cinema experience is like letting the waves of the ocean crash over you and not be afraid of drowning […] to give oneself up to the other' (*Notes On Cinema*).

It is useful here to loosely define film worlds (since they are multitudinous, 'irreconcilably different' timespaces), and Daniel Yacavone's explanation feels most prudent. He writes that, firstly, film worlds can emerge as perceptual and symbolic objects to be analysed and that:

> secondly, they may be seen 'from the inside' as durational and affective experiences that are fundamentally irreducible, with a focus on the immersive (and intuited) nature of their expression. (2008, 86)

It is primarily the second part of his definition that I engage with. Yacavone eventually posits that these latter film-worlds require a subject through which the creator of the aesthetic object is identified. His theorisation of these worlds is primarily concerned with 'director-specific feeling or affect' (2008, 100). My conception of film worlds departs from Yacavone's here. He takes this duality further, calling film worlds 'object-experiences which may be described in terms of the polarities of external/internal, objective/subjective, representational/expressive, ontological/phenomenological' (2008, 105). In this way Yacavone's film worlds ignore the potentials of an entangled view of cinema as an affective medium viewers participate in and become-with by separating it through binary structures. The non-dual film world allows a

marriage of geographical and temporal peripheries to form them, breaking away from the limitations of an *auteur* approach in which films are dead on arrival, rather than being enchanted with an afterlife post-creation that allows them to ecstatically change us and be changed by us in their interactions between the borders and peripheries of their worlds. Lucia Nagib promotes this entanglement too, writing that in multicultural societies, films simply cannot be seen as 'the other', and that 'more interesting than their difference is, in most cases, their interconnectedness.' (2011, 1). The focus on interconnectedness is ethically essential, both for highlighting similarities between peripheral film worlds and temporalities, but also for the way it necessarily defines difference through this interconnection. Both are key to understanding and appreciating the vast constellations and galaxies of worlds that continually form and reform our existence.

However, this conception of film worlds must evolve further. Peripheries of cinema are not just limited to the geographical or the temporal, but to the formal too. Marginal and evolving conceptions of cinema itself are also key to this theory of many worlds. Rather than the cold, calculated analysis of features and symbolic interpretation we instead affectively encounter these worlds, allowing their waves to crash over us as we become-with their formation. Despite not being part of these worlds, our immersion in them becomes a route to limited experience, though experience nonetheless. Barley attests to this experience: 'In these moments of the camera becoming the body, we, the spectator assume the body of the protagonist' (*Notes On Cinema*). They are immersive precisely because of their irreconcilability with our perceptual experience. They are dark worlds, literally in their underexposed presentation, and figuratively in the unknowable nature of their worldhood - their existence *in* the world, and their figuration *of* a world.

Darkness and Simulation

The creation of database cinema, especially in its recycled/re-used form, can inevitably be criticised as the creation of a facsimile, an imitation. In Franco 'Bifo' Berardi's words, it would be a simulation, 'a copy which has no prototype, the imitation of something that does not exist, and has never existed except in the simulator's mind' (2015, 99). Berardi talks about this simulation as a facet of 'semiocapitalism', his name for the regime of endless information flows valourising capital that embody nothing but simulations, recalling and evolving heavily from Baudrillard's *Simulacra and Simulation* (1994). For Nancy and Barrau (as for Baudrillard), these simulations mean nothing - behind their shallow facades lies the truth of 'sign and sign and nothing' (2015, 9). Simulation is borne into the world from the darkness of the mind, and embodies the true darkness of 'nothing', no meaning. For Berardi, to simulate is a conscious choice of translation from mind to world, and so this darkness from which it emerges is not really a darkness. Instead, it is known by the creator (in this case the creator of the database), and emerges from the light of an idea, a conscious, pernicious thought of simulation that merely follows the previous iteration. With Barley, however, as well as obscuring his database in the invisible editing of images, he similarly obscures from himself the very idea of making a film. He explains that in the process of creation 'I have no idea, or agenda to make a film. I simply document. I shoot what attracts me … once I have built up a body of footage, I start to see

connections' (*Notes On Cinema*). Barley's lack of objective (mission) while filming means that his films emerge from the darkness of preconsciousness; the unthought, or perhaps through intuition. In place of the conscious elaboration of the rhythms of semiocapitalism, the films instead are formed with no sign from which to begin down that path. Maurice Merleau-Ponty's immanent significance emerges as the first referent, allowing appeals to memory that do not rely on the previous iterations of signs, and thus Barley creates viewing-experiences along with us, who ourselves sees his films emerge as immanently (sign)ificant. Barley's work is unwatchable in the light of semiocapitalism, just as it is unwatchable *in light*. His underexposed images can only be seen on a dimmed screen in a dark room - a non-space, created because 'I feel like I don't belong in either place fully; not the internet, not the cinema' (Barley, *Notes On Cinema*). To block out the light is to see clearly these non-human film worlds; we must create the non-space to view the new space.

Given our participation in Barley's films as protagonists in an unknowable world, the boundaries between the films and us bleed into one another. The absence of figures and presence of figurations encourages this; the disembodied hand reaching from the screen into the background in *The Sadness of the Trees* (2015d) becomes embodied by the viewer. By the time *Womb* (2017c) is released, the hand instead reaches out towards us, acknowledging our presence in the film world. These abstracted figurations and lack of clear narratives allow our minds to wander and become hypnotised by images whose meaning we are invited to create, abandoning semiocapitalism's conscious rhythm of thought. Berardi invokes Felix Guattari's term *chaosmosis* to describe this - 'the shift from a rhythm of conscious elaboration (refrain) to a new rhythm, which is able to process what the previous rhythm could not process' (2015, 115). The new rhythm we find ourselves in rejects the constant exhaustion and depression that form key bodily affects of semiocapitalism (Parikka 2015), replacing endless information flows with periods of nothing, of slowness, and the lack of thought that emerges as the unthought. The release of Barley's film *The Green Ray* (2017a) attests to this. The film is composed of a single shot - though how singular an affective database is we do not know - taken from the multitude of images that form *Sleep Has Her House*. It is eleven minutes in length and displays the setting of a sun and the emergence of a lightning storm over water. To describe the image does seem to kill it, and so we must think about what this image *can* do, in that it can allow us a period of 'nothing', in which we immerse ourselves. The film feels significant, and meaningful, yet does not come from any recognisable form of perception that we know. Its temporality is distinct from our own, its signs do not exist. Although we see the lightning and the water, the film world feels so utterly alien to our own, so distinct from how we engage in our own acts of worldhood, that our referent to it exists only as fleeting recognition that regresses instantaneously into the darkness of the screen. The act of viewing this single, long shot creates meaning from nothing. Not the nothing that hides in plain sight in semiocapitalist simulacra, but the nothing immanent to the creation of Barley's film worlds, an unthought nothing. If Berardi's simulation (from the Latin *similis*, meaning 'like, resembling') is the refrain of 'sign and sign and nothing' (Nancy and Barrau 2015, 9) we are in a rhythm of 'nothing and nothing and meaning', or *symulation* (from symbiote) in which there is togetherness, a sharing, a becoming-with, a being-with the world(s). Darkness inherently

engenders symulation, which becomes a collective act of meaning creation between film, filmmaker, and viewer-participant. The darkness referred to here, and to which Barley's work is also referent is one that precedes light. This darkness is one that cinematic light cannot ever reach in the same way the expansion of the universe prevents the light from distant stars reaching us. This is not to say that we are the centre to which this darkness is related, but that darkness is instead the centre from which light may emerge. The darkness of *The Green Ray* is twofold. It is the darkness of the images themselves, and of the multitude of images that will be added to it that we cannot see; the myriad other projects that its composited images might be recycled in by Barley.

Socialist Symulation

We cannot, however, get distracted by the wonders of the affective database without critiquing the privilege it takes to create and encounter one. Jussi Parikka (2015) reminds us that smartphones contain dozens of rare metals, reminding us of the scourging of resources enacted by late capitalism. These are rendered unseen by the design of the phone, hiding its internal components. Even the metallic nanoparticles, aerosolised in the brushing and polishing of the phone's metal casing, obscures this. The slow violence (Nixon 2013) wrought over the past five centuries connects all our modern technology to the destruction of the natural world. There is no escape from this. There are, instead, only steps one can take to mitigate it.

The production of Barley's films minimises this worldly impact technology can have. There are no additional purchases of expensive digital equipment, no reshoots or rentals. There is no crew to transport nor natural spaces to ravage with boots and lights and generators. These are ecocinematic practices. Traditionally, ecocinema would be heralded as slow, a form of cinema that reduces kinetic movement of cameras and increases attention spans, which seems to fly in the face of Barley's more hyperactive, ecstatic works. John Landreville counters, suggesting 'a formalist theory of ecocinema that is more affectively, rather than reflectively, attuned and more immanent in its focus' (2019, 106). Barley's use of his smartphone does not, generally, extend past normal use when considering the day-to-day proliferation of images around the world. The filmmaker submits himself to encounters in the world, rather than seeking out or uncovering a desired encounter, which not by chance recalls the seeking out and uncovering of minerals from the topsoil and below in endless capitalist production. Throughout the process, Barley submits to creation without conscious intention. He describes his films as emerging from the struction of footage he has stored, themselves evoking simultaneity for us as viewer-participants. Thus, we collectively create the meaning in Barley's films, and collectively engage in the ecocinematic process he catalyses. Brown writes that:

> making a film in part with a smartphone suggests a deference towards rather than a desire to dominate reality. This democratization of cinema…is in some senses a socialist manoeuvre. (2018, 224)

I suggest that this provokes us to think of symulation in the same way. Rather than a method of exercising control, symulation is a submission of control, a loss of control together, that affectively gives us over to the creation of meaning that is immanent to the viewing experience,

and not exercised consciously by us. Thus, the new unconscious rhythm, the unthought, allows us to socialise through the experience, and defer to immanence - a socialist manoeuvre.

Losing Control of Cinema

The loss of control inherent to symulation is reflected in Barley's films, where language becomes insufficient, and indeed unable, to communicate effectively. This is not just spoken or written language, but language as an idea. Brown suggests that non-cinema is, in a sense, beyond language, and that 'language, it would seem, or the process of reification and the assignation of use value, is in the services of cinema-capital.' (2018, 247). I would take this further and argue that the affective database is not just beyond language, but beyond referent. Thus, it is beyond cinema and non-cinema also. Where cinema and non-cinema held shots that tell stories and images that communicate information there is, in the affective database, 'nothing but a deluge of pure, unadulterated feeling; feeling alone. And pure feeling cannot and should not be translated into rational thought' (Barley, *Notes On Cinema*). We feel this embodied (un)clearly in *Polytechnique* (2014), an attempt of Barley's to create 'prisoner's cinema', the appearance of ill-defined and indescribable light and colour that occurs in the vision of those who spend a lot of time in darkness. As we have seen, all of Barley's work emerges from darkness, and it is in darkness that we find ourselves becoming-with the film worlds. It is there, too, that Barley's films begin to take hold of us as nothing but 'feeling alone'. The collaboration with musician Easychord in *Polytchnique* complements this further. His droning score features what we could figure as memories of orchestral and operatic music that never become fully realised. They are always subsumed by the darkness. Instead, we feel the presence of this musical memory through its near absence, submitting ourselves to the feeling it gives us, to the strain it engenders in our ears, and the recognition of an immanent significance that we find emerging from the nothing. Barley's films all defy language and the use of it. Some even play with this defiance, opening or closing with poetry that never displays on an image, only a black screen. The 'language' of cinema is rendered void through his work, and instead of a stratified and hierarchical logic underpinning decisions to cut, dissolve, layer and darken there is the beat of the unthought, unconscious rhythm of symulation that submits control. The layering of images especially provokes this. Where cinema's language would have been there are instead indistinct cuts and dissolves and layers one on top of the other in non-sensical fashion. Language becomes incomprehensible like this. For example, were the same to be done with this study, words layered one upon the other, it would appear as only this: [redacted] in the middle of a black page - unknowable, though even if it were it would not be sens(e)ible - it is only through cinema that this can happen.

For this is a cinema of losing control, through the submission of the idea that we could ever have had some over these strange worlds. Just as Barley submits himself to a stream-of-consciousness filmmaking process, so too do we submit the viewing of these films to the unconscious rhythm, in another parallel that forms the viewer-participant dynamic we inhabit with the filmmaker. We are de-centered by this, opening ourselves to animal and mineral perceptions through a foregrounding of a sensual experience that lies in the background of capitalism - the experience of the Other.

Noisy Constellations

The foregrounding of Othered perceptions becomes a positive gain for us as human beings. Though I do not argue that one could become a minority, given the political connotations of the idea, we do decenter our experience as anthropocentric humans, in favour of non-anthropocentric thoughts and perceptions. Thus, what we gain is an appreciation of the effects of *chaosmosis*, where we encounter these non-human rhythms. In Barley's work, and perhaps all affective databases, the unthought/non-thought becomes the central component of lived experience. Following Nancy and Barrau:

> it is not a matter of thinking differently, but of thinking in a place where thought does not have any currency […] of unistruction: the struction of the ones, a contingent and proliferating struction […] that does not subsume singularities. (2015, 88)

We feel this unistruction in the database, in the layered and composited images that we affectively encounter in his films. The images are still constructed of singularities but unify on the screen and in our eyes into a (dis)organised wave of perception. We see it more concretely in the form of digital noise, especially *Nightwalk* (2013) and *Passing.* Both films are visual negatives, portraying darkness as light and light as darkness, although the digital editing technique leaves significant imprints on the image. Instead of true darkness and true light there is a multitudinous swarm of luminous dots and (in his colour films) colours that stem from digital technology trying to artificially 'make light' the darkness.

The particles of noise recall Parikka's assertion that 'nanoparticles are everywhere and form societies unseen and unheard of, yet they conglomerate on a scale unimaginable to human beings. We are a minority' (2015, 86), and so this noise reminds us that we too are a minority compared to the vast number of unknowable worlds that exist beyond-perception and therefore beyond thought. Barley's preoccupation with star-fields create this feeling too. The firmaments of *Womb* and *Hunter* (2015) envelop us, surrounding our viewing-space (non-space) with a multitude of stars that we know are far beyond our scale of comprehension. Stars are an essential affect of cinema for Barley, who thinks that 'perhaps we have no purpose except to one day return, to pass through that mirror, and reunify with the stars that birthed us' (*Notes On Cinema*). Constellations, thus, are a key part of the invitation to non-human perception that his films hold, and these constellations are themselves multitudinous. There is the constellation of images layered one on top of the other, and the constellation of filmmakers that Barley aligns himself with. There is the constellation of film worlds that hold yet more constellations of perception and there are of course several images of constellations and through this there is an ever-reflective infinity of noise that tries to make the darkness seen: non-human perception perceived.

Infinite Deaths

Barley's cinema alters our thoughts and elicits images and rhythms of non-human perception, seeing from many angles at once, or seeing deep time from outside of that timespace. The noisy constellations constantly pull us back to the stars in infinite repeated deaths, or rather, entropic disorganisations as our atoms return time and again to the star-fields they came from. It is no

wonder that bodies are complicated ideas in his work. Often they are ghosts - imprints and affective recollections of bodies (*Nightwalk*, and *Irresolute* (2013a) especially) are common, but in *Womb* bodies are shown within the star-fields as vast, cosmic horrors recalling Lovecraft (though these bodies are waiting for consciousness before they can wreak their havoc once more). One gets the feeling when watching that they have returned time and again, and now lie in death waiting for a re-birth. These ghostly apparitions are, phenomenologically speaking, an affect of interaction between worlds and us: a non-local, temporally unstable expression of perception, time and place. Their abstracted nature and inhabitation of non-human worlds evokes the idea that 'the world is itself the "subject" of which we are an affect' (Nancy and Barrau 2015, 4-5). To become a ghost is to have died, which we do as we lose our anthropocentrism. Barley's work (and, I would suggest in some cases, cinema in general) is uniquely positioned to communicate these deaths. Thomas Wartenberg claims that 'because of their ability to depict motion, [films] also have the possibility of depicting stasis, something that is surprisingly not possible in a static medium' (2011, 21). Stillness, as distinct from slowness, is a lack of rhythm and is inherently connected to death, and so I would not argue that Barley's films are depictions of stillness itself. However, the slowness and non-human rhythm of his cinema suggests a 'slow aesthetics' (not necessarily slow cinema), that is created slowly, displays slowly, and slows our thoughts. This is particularly true of *Painting (I)* (2016c) which visualises on screen a thirty-second phone-captured shot of tree branches in wind as a six-hour series of frames, each one completely still. Movement is slowed to such an extent that periods of stillness can appear. Barley's work contains many such instances, where we are slowed to a rhythm that allows the perception of stasis that semiocapitalism otherwise refuses us. Thus, we perceive the ultimate non-human experience of death, and find ourselves truly in other worlds.

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Construction of Natures and Protests on Instagram: A Study of Virtual Environmental Activism in India During the COVID-19 Pandemic

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ABSTRACT

In 2020, the COVID-19 pandemic and lockdown in India restricted 'real world' protests, shifting dissent to digital spaces. In this article we explore virtual environmental activism on Instagram by looking at two case-studies that gained prominence during this period. The first was the death of a pregnant elephant in Kerala by consuming cracker-laden food meant to deter boars from crop-raiding. The second was an oil and gas leak in Baghjan, an ecologically sensitive region in Assam. Through content analysis of 'Top' posts, we thematically classified the representations of nature and non-humans constructed through Instagram visuals, identifying overlaps and contradictions in the two cases. Observing that the images of animals in pain generated massive response, we argue that Susan Sontag's (2003) framework on the haunting power of images of human suffering can be expanded to include non-humans. These visuals highlight certain creatures, excluding other species and vilifying human communities belonging to the same landscapes. We show how unilinear models of economic development and progress, as well as hierarchical and casteist notions in Hinduism continue to shape environmental debates in India. The religious overtones discount the environmental discourse based on scientific knowledge, and disrupt nuances of community driven action. By tracing the online trajectories of the two protests, we also illustrate how virality limits Instagram activism by sidelining local voices and privileging short-lived consumer action over systemic change.

KEYWORDS

COVID-19, Environmental Activism, Non-Humans, Instagram, India

1. Introduction

The SARS-CoV-2 virus left no country untouched in 2020, but the lived reality of the COVID-19 pandemic varied across the world. India's pandemic experience was shaped by the ruling Hindu nationalist Bhartiya Janata Party (BJP), but also had roots in the country's colonial past. On 24 March 2020, almost two months after the first case of COVID-19 was reported in India, Prime Minister Narendra Modi announced that the country of 1.38 billion people would be placed under complete lockdown starting midnight. The initial twenty-one day lockdown was extended thrice, with the unlock process beginning in June (Sharma 2020). Road, railway and air transport services were suspended, except for the carriage of essential commodities and movement of the police and healthcare workers (Hebbar 2020). The brunt of this hastily-imposed lockdown fell disproportionately on the country's poorest and most vulnerable. Millions of migrant workers were

stranded in cities and had to walk hundreds of kilometres to reach their villages and hometowns (Shroff 2020). The timing of the pandemic was fortuitous for the ruling party, which had been facing nationwide protests against its Islamophobic and anti-poor policies such as the Citizenship (Amendment) Act 2019, proposed National Register of Citizens, and the Draft Environmental Impact Assessment Notification 2020. In the shadow of the pandemic, protest sites were dismantled, and journalists, activists, and academics critical of the government were incarcerated. The BJP legitimised its actions by invoking the Epidemic Diseases Act 1897, a draconian colonial-era law drafted by the British government during the plague pandemic of the late nineteenth century (Banerjee 2020). The lockdown also enabled the state to strengthen online surveillance – personal data of fifty million people was collected in government servers through the Aarogya Setu mobile application meant to track coronavirus cases (Freedom House 2020).

The lockdown was enforced through violence - in many Indian states, people spotted on the streets were assaulted and imprisoned by the police, even if they were seeking essential supplies (Human Rights Watch 2021). Barred from mobilising outdoors, those who could began to convene virtually (note that only 24% of Indian households have internet access) (UNICEF 2020). Several existing protests shifted to digital spaces, and protestors also came together against new policies and incidents online. The protests manifested on social media websites which are extremely popular in India - there are over four hundred million social media users, with Facebook leading in user count, followed by YouTube and Instagram (Keelery 2020). In this article, we examine virtual protests on Instagram during the COVID-19 lockdown. In particular we explore environmental protests and attempt to understand the ways in which these construct ideas of nature on Instagram. In post-COVID times, it is especially important to study virtual manifestations of nature, since the pandemic has limited people's access to landscapes and creatures in the 'real world'. Nature itself is a value-laden term, and scholars have critiqued dominant discourses that posit nature as separate from culture and non-humans in opposition to humans (see Latour 1993; Cronon 1996). These dualisms are also hierarchical; non-humans and nature are seen as inferior to humans and culture. This article is an investigation of popular social media narratives of nature and creatures. By studying and questioning these narratives which traverse our daily lives, we reflect on their implications for the relationship between humans and non-humans.

2. Review of Literature

2.1 Activism on Social Media

In the early years of social media, Clay Shirky (2008) predicted that social media sites would enable group action in a manner that could earlier be accomplished only through institutions. Paolo Gerbaudo (2012) contended that social media had the potential to create a virtual public sphere where previously fragmented groups could assemble. The idea of social media as a new public sphere was taken forward by Payal Arora (2014), who drew parallels between public parks and social media platforms, noting that while both had been designed for leisure, they often morphed into sites of resistance. Evgeny Morozov (2009) on the other hand, maintained that social media

generates a kind of lazy, pseudo-activism or 'slacktivism', where liking and sharing posts becomes a substitute for meaningful yet exhausting, real-world action. Vincent Miller (2017) argued that social media does not foster meaningful political debate, but rather serves a 'phatic' function, enabling people to maintain existing ties and validate others with the same opinions. While Morozov and Miller posit social media as opposed to traditional activism, other studies illustrate how it has supplemented real-world protests through mobilisation and fundraising (see Fischer 2015; Lovejoy and Saxton 2012).

It has been observed that social media has a high affinity for populism. Gerbaudo (2018) identifies two reasons for this. First, social media is often perceived as an alternative to mainstream media, which is seen as suspicious and controlled by big businesses and political parties. This view overlooks the fact that social media platforms are themselves run by large corporations such as Facebook and Google. Second, the architecture of social media is built to aggregate. It brings together isolated individuals with common interests, generating online 'crowds' which have the potential to transform into mobs. It is also relevant to look at how states engage with social media activism. Thomas Poell (2014) illustrates how state censorship shapes protests on social media using case-studies from China and Iran. Activists have used anonymous accounts and misspell words to prevent detection, however, the effectiveness of such techniques is limited. Social media sites are constructed in a manner that curbs protest activity - accounts often mandate real names, content can be removed if reported, and frequent changes to the platforms prevents activists from devising ways to be discreet. Poell suggests using a combination of social media platforms to safeguard online protests.

2.2 Instagram as a Medium for Research

Instagram was launched in 2010 as an image sharing mobile application. Ten years and a billion users later, it remains a phone-based platform - while posts and stories can be viewed on the Instagram website, new content can be uploaded only through phones (Caliandro and Graham 2020). Unlike Facebook and Twitter, where images and videos are optional accompaniments to text, Instagram mandates the use of visuals. This makes it a valuable source of digital photographs which can be examined using existing theoretical frameworks on photography. Digital images also hold political power, providing evidence and context for real world protests, and even themselves become safe sites of protests for vulnerable groups like women, or during crises like the COVID-19 pandemic (Highfield and Leaver 2016). Instagram is also known for its dynamicity. Several new features have been added since 2010, including hashtags in 2011, videos in 2013, stories and live videos in 2016, IGTV in 2018, and reels in 2020 ('Timeline of Instagram' 2020). The platform is also distinctive for research because of its young user base, with 60% of its users aged between 18 and 34 (Clement 2020).

The basic unit of Instagram research is the hashtag. A hashtag is a metadata tag created by adding a '#' symbol before a word or unspaced phrase. Users can click on a hashtag to reach all the content labeled using the same tag (Veszelszki 2016). Stamatios Giannoulakis and Nicolas Tsapatsoulis

(2016) established that Instagram hashtags can be used to train image annotation software since they more accurately describe photographs compared to other methods like crowdsourcing. Hashtags do not simply serve a descriptive purpose; they may be used to increase the visibility of posts ('like-hunter' tags), to showcase capital, or to express a mood or feeling (Veszelszki 2016). Employing the hashtag as a basic unit, Instagram has been used for research on various themes. Many scholars have studied self-representation on Instagram, particularly through 'selfies' (self-portraits using phones' front cameras) (see Souza et al. 2015; Wagner, Aguirre Alfaro and Bryant 2016; Caldeira, De Ridder and Van Bauwel 2020). The agenda-setting role of Instagram has also been examined. Terri Towner and Caroline Lego Muñoz (2020) discussed the disparity between the salient issues on Instagram and mainstream media during the 2016 United States presidential elections. Luis Casaló, Carlos Flavián and Sergio Ibáñez-Sánchez (2018) observed the phenomenon of opinion-leaders or 'influencers' on Instagram, and their role in shaping followers' consumption patterns. Existing literature explores the implications of Instagram use on mental health (Frison and Eggermont 2017), and Instagram posts have also been used to study bullying, depression and eating disorders. A model for predicting suicidality using Instagram data has also been proposed (Brown et al. 2019). John D. Boy and Justus Uitermark (2016) have developed novel methods for urban studies using Instagram's geo-tagging feature, Jeffrey P. Carpenter et al. (2020) examined the use of Instagram by educators, while Elisa Serafinelli (2020) studied how Instagram photographs retain traditional photography's purpose of memory preservation.

2.3 Digital Representations of Nature

In *The Society of the Spectacle* (1967), philosopher Guy Debord contended that in modern society, everything that was earlier experienced personally has been replaced by its representation. 'The spectacle' refers to social relations among people, which are now mediated through images. Using Debord's framework of the spectacle, Jim Igoe (2010) examined media representations of nature, and problematised images circulated by conservation organisations. He used the Maasai Steppe Heartland of Tanzania as a case-study to illustrate how indigenous communities and their landscapes are commodified by conservation organisations competing for funding. Images of the Maasai circulated by the African Wildlife Foundation portray their lives as noble, their environment as pristine, and their relationship with non-humans as entirely peaceful. The images ignore the historical processes underlying the Maasai's marginalisation, hide the human-wildlife conflicts that have forced tribespeople to relocate, and invisiblise other communities and their struggles. The visually-mediated relationship between donors and conservation organisations is based on promises of redemption and repair. This guise of redemption creates opportunities for capitalist expansion and is disconnected from reality. The visually-mediated spectacle serves as a fleeting moment of participation and leads to downplaying of structural imbalances (Büscher and Igoe 2013).

While Igoe looked at media images in general, Bram Büscher (2016) studied representations of nature on the Internet in particular, arguing that there exists a 'second nature' or 'Nature 2.0' which is co-created by conservation organisations and ordinary people on the Internet, on eco-search

engines, conservation-themed games, communities geared towards conservation, citizen science mobile apps, etc. In Nature 2.0, real landscapes and creatures are portrayed in a romantic, exaggerated manner to gather more clicks and donations, commodifying them in the process. Michael K. Goodman et al. (2016) have pointed out that online campaigns urging individuals to support and fund conservation efforts individualise responses at a time when collective action is needed.

In another important work, Crystal Abidin et al. (2020) identified various tropes of celebrity environmentalism. They observed that celebrities have a specific form of capital (deriving from Pierre Bourdieu's (1993) field theory) which gives them recognisability and influence across multiple platforms. However, celebrity activism legitimises ways of thinking about issues and solutions which are far from socio-ecological lived realities, and push for consumer action instead of systemic overhaul. David W. MacDonald et al. (2016) examined social media response in the case of 'Cecil the Lion' who was hunted in Zimbabwe in 2015. In this case of trophy hunting, there was a quick and furious social media response across the world, especially in the Global North. But after the initial furore died out, the incident was all but forgotten. MacDonald et al. ask, was the response a 'movement' or a mere 'viral moment'? They suggest that Cecil became a spectacle - his hunting ignited emotive response, which was rather long-lived for a social media movement but too short-lived for any structural changes to take place.

According to Trevor Garrison Smith (2017) technology is not an obstacle for demonstration of protests; the impediments are political in nature. He argues that the economic rationalities of neoliberalism have led to a loss of political avenues, and people want alternatives to the anti-political status quo. For Smith, the Internet is necessary for the revival of politics due to its potential to bring forth alternative voices and create novel tools for engagement and collective action. He explores the intricacies of the Internet and the ways in which political engagements can take place on multiple terrains, as imagined by Hannah Arendt (2005). Engagement with political practices in daily lives in our homes, offices and while traveling is an interesting prospect, and Smith believes it has radical potential.

2.4 India's Digital Mediascape

India is a multi-religious, multilingual, and multi-ethnic country with shared, yet contested histories. In recent years, these contestations have acquired new forms and manifested in new spaces. Since 2013, digital spaces have increasingly been flooded by Hindu nationalist rhetoric by the ruling BJP (Rodrigues and Niemann 2017). BJP's Information Technology (IT) cell is not only used for political campaigning, but also for spreading narratives that glorify Hindu rulers and vilify Islamic dynasties of the past, intimidating journalists, scholars and anti-establishment organisations, and running smear campaigns to discredit mainstream news and protests against government policies (Chaturvedi 2016). Sahana Udupa (2016) has argued that the work of BJP's IT cell constitutes a distinct politics of history-making - online archiving. 'Online archiving' is the practice of presenting facts, figures and treatises as an ideological exercise by non-experts (Udupa

2016). Udupa has illustrated the role of social capital in online archiving, noting that volunteers belong to privileged sections of society and find a newfound sense of political agency on social media. This practice is aimed at producing a homogenous Hindu nation by attacking plural and secular historical narratives, and offers a troubling picture of India's digital commons (Udupa 2016). Prashanth Bhat and Kalyani Chadha (2020) have identified specific discursive strategies employed by right-wing online platforms for the systemic discrediting of the mainstream press. Articles on websites such as *OpIndia.com* narrativise established media organisations as 'anti-Hindu' or 'anti-national', and effort is made to bring 'Hindu issues' to the fore.

India's digital infrastructure has been shaped by both its colonial history and contemporary rules of inclusion and exclusion. Western frameworks cannot be applied generally in the South Asian context because of the colonial history of information infrastructures, communal and caste politics, and a 'development legacy' of welfare schemes tied to specific political groups (Arora 2019). The disputed state of Kashmir was disconnected from global internet and mobile infrastructures for months after the controversial abrogation of Article 370 by the Indian government (Punathambekar and Mohan 2019). As the disparity in digital infrastructure widened, the social media presence of Kashmir's social and political groups diminished. Meanwhile, the cyber volunteers of the ruling party justified the actions, citing the threat of terrorism and radicalisation. It is imperative to historicise the current media paradigm in India, to examine the underlying politics and rules of access. Arora (2019) and Usha M. Rodrigues and Michael Niemann (2017) have suggested the need for an integrated examination into the phenomenon, especially due to the resurfacing of exclusionary, communal and casteist political discourse.

Spiritual ecology is a conceptual framework used to understand how religious and spiritual values shape attitudes towards nature and environmentalism. Kelly Alley (2019) has examined legal cases which designated the Indian rivers Ganga and Yamuna as legal persons. Alley argues that the identification of sacred rivers as human influences legal interventions and enforcement powers, and such personification of nature reinforces 'soft Hindutva' in the garb of spiritual ecology. Eliza Kent (2015) and Owen Ellerkamp (2018) have examined the particularities of Indian environmentalism and discussed how religion has been used to promote pro-environment action and even been considerably successful in mobilising people. Ellerkamp (2018) contends that the rise of the BJP and its brand of environmentalism has been employed to prioritise geographical features tied to imagined Hindu pasts and futures furthering the Hindu nationalist agenda. Such environmentalism is problematic because it is not based on ecological concerns, but rather on ideas of Hindu nationalist and cultural supremacy. Hindutva environmentalism also overshadows scientific sensibilities which would be more effective and less divisive.

2.5 Understandings of Environmental Justice

Does the phrase 'environmental justice' have a fixed connotation across time and space? Or do discourses around environmental justice function according to strategic selection? The most influential justice theorists of the twentieth century (such as John Rawls and Ronald Dworkin)

understood justice as a question of equity in the distribution of goods, political, social and economic. The idea of 'justice as distribution' dominated academic discourse for decades, and the first generation of environmental justice research was conducted within the same frame. Most of these early studies mapped the spatial distribution of 'environmental goods' (such as urban green spaces) and 'environmental bads' (waste, landfill and industrial sites or sites vulnerable to natural disasters) and examined their proximity to marginalised groups in society (Greenberg 1993; Grossman 1991).

David Scholsberg (2004) suggested that the understanding of justice as distribution is insufficient in praxis. He pointed at the various demands for justice by media, individuals, and civil society organisations for a comprehensive approach and indicated the need to study discourses which challenge existing academic understanding of environmental justice. Gordon Walker (2009b) argued that it is of utmost importance to recontextualise matters of environmental justice. He emphasised the significance of geography and the need for non-universal and non-technocratic approaches. Another important element of environmental justice is participation. It has been argued that when decisions regarding the utilisation of a particular habitat need to be made, those who will be most affected by the change must have the right to be involved in the decision-making process (Schlosberg 2009).

Anna Stanley (2009) presented another strong case against distributive concepts of justice and argued for critical engagement with the politics that structure environmental practices. She contended that the distributive understanding views spatial and human relationships as non-dynamic, depoliticised and bourgeois, and doesn't question the privilege linked with such a position. Stanley suggested that depoliticised analysis of injustice reproduced hegemonic social structures and patterns of oppressions. Drawing from feminist critiques of distributive justice, she argued that difference and difference-making must be acknowledged and should not be confused with liberal subjectivities which universalise exploitative spatial and human relationships. She demonstrated that spatial processes are constructed due to difference, and space is central to relationships and discourses and it is necessary to politicise sites of environmental practice and difference making.

3. Methodology

To study representations of nature on Instagram, we selected two case-studies from India which gained prominence during the COVID-19 lockdown. The first was the death of a pregnant elephant in South India after ingesting crackers meant to drive away boars from farmland. The second was an oil and gas leak in the Baghjan oil field, located in an ecologically fragile region in northeast India. These case-studies were chosen because we observed that Instagram posts on these events seemed to highlight opposing notions of the relationship between humans and non-humans. In the Baghjan case, the OIL corporation was criticised for causing the dual destruction of wildlife habitats and human livelihoods, while in the elephant case, human livelihoods were seen as antagonistic to non-human creatures.

To understand how the case-studies were portrayed on Instagram, we began by identifying the most popular hashtags for both cases. Next, six hashtags were selected (three for each event) which were uniquely used for posts on these cases (see Table 1). Instagram has a 'Top' posts section which features the most popular posts for each hashtag, determined by the posts' 'engagement' and the speed at which it is attained. Engagement is a measure of the likes, views, comments and number of saves a post receives on Instagram (Finley 2020). We used a content scraper built on Python to extract one hundred 'Top' posts for six hashtags dating up to 31 October 2020. The visuals, date of posting, name of account, captions, number of likes and number of comments were also collected. We undertook a thematic classification of the posts using content analysis, which we present in the following section.

We also sought to visualise the life-cycles of these case-studies on Instagram. For this we created scatter-plots, plotting dates on the X-axis and number of posts on the Y-axis. The objective here was to understand whether these events were sustained protests with long-term goals and real-world results, or simply ephemeral 'moments' that commenced and concluded with little impact.

Table 1. Hashtags used on Instagram for case-studies.

CASE-STUDY	MOST POPULAR HASHTAGS	HASHTAGS FOR CONTENT ANALYSIS
Kerala Elephant Death	#animalcruelty, #elephantdeath, #justiceforelephant, #justiceforvinayaki, #keralaelephant, #keralaelephantmurder, #ripelephant, #riphumanity	#justiceforelephant, #justiceforvinayaki, #keralaelephantmurder
Baghjan Oil and Gas Leak	#baghjan, #baghjanfire, #baghjanoilfield, #baghjanburning, #oilindialimited, #saveassam, #savebaghjan, #savemaguribeel, #savedibrusaikhowa, #saveriverdolphin	#baghjan, #baghjanoilfield, #savebaghjan

4. Findings

4.1 Case-study 1: Kerala Elephant

4.1.1 Background

On 27 May 2020, Kerala-based forest officer Mohan Krishnan posted images of a dying female elephant on Facebook. Krishnan's grieving post attributed the elephant's death to the ingestion of

firecrackers, but he also claimed that the creature had performed *jala samadhi*, a ritual in Hindu mythology through which Lord Rama had passed on from the world (Krishnan 2020). The incident gained enormous attention on social media. The post-mortem confirmed the cause of death to be the ingestion of a pineapple stuffed with firecrackers, and revealed that the elephant had been pregnant. Maneka Gandhi, BJP politician and animal rights activist, demanded punishment for the elephant's 'murderers', claiming that they belonged to the Muslim majority 'criminally active' Malappuram district of Kerala (Gandhi 2020). Later investigations revealed that the elephant had died in the Hindu majority Palakkad district. It was also found that local farmers had planted the firecrackers to deter boars from crop raiding (Nishant 2020).

4.1.2 Thematic Classification

Through our content analysis of three hundred 'Top' posts on Instagram tagged #keralaelephantmurder, #justiceforelephant, and #justiceforvinayaki, we identified the eight themes discussed below. Multiple themes often overlap in posts.

Table 2: Themes identified in posts on the Kerala Elephant case.

THEMES	OVERVIEW
1. Vilification of Humans	Portrayal of humans as barbarians and non-humans as victims.
2. Non-human Animals in Hinduism	Connections drawn between the elephant's death and narratives from Hindu mythology.
3. Glorification of Motherhood	Highlighting the elephant's pregnancy, anthropomorphisation, idealising motherhood.
4. Diets and Animal Rights	Promotion of veganism and vegetarianism, criticism of meat-eaters.
5. Appropriation of Black Lives Matter	Black Lives Matter movement appropriated to gain visibility; historical content ignored.
6. Anti-Kerala and Anti-Muslim Propaganda	Used to spread rumours and propaganda against the CPI-M party and pin blame on the Muslim community.
7. Fact Checks	Dispelling rumours and challenging misinformation.
8. Promotion of Products and Accounts	Selling elephant-themed products, promoting personal accounts.

Theme 1: Vilification of Humans

Posts on this theme portray humans as barbarians and non-human creatures as victims. Several posts express guilt and remorse on behalf of humanity. Many posts show humans being punished by deities, animals, and 'Mother Nature' figures for betraying the elephant's trust. Some present the COVID-19 pandemic as a consequence of humans' abuse of animals.

Theme 2: Non-Human Animals in Hinduism

Several posts depict the Hindu elephant deity Ganesha, and other deities like Vishnu, Shiva, and Kali assisting the pregnant elephant or avenging its death. The elephant's death was posted about by accounts belonging to many different countries, especially China, Japan and Taiwan. We can connect this with the deity Ganesha, whose iconography travelled first to China and then to Japan. A version of Ganesha named Kangiten is a key figure in the Japanese Buddhist pantheon (Brown 1991). Around the time of the elephant's death, a cow in Himachal Pradesh died after ingesting crackers. Many posts bemoaned the lack of a massive Instagram response for the creature since cows are sacred in Hinduism.

Theme 3: Glorification of Motherhood

The elephant's pregnancy was highlighted in most posts. The visuals anthropomorphise the elephant, depicting her either with a child in the belly or talking to her baby in heaven, bemoaning the decision to trust humans. A Hindi caption on one of the posts reads, 'tumne sirf ek janwar ko nahi, ek maa ko mara hai' ['you did not just kill an animal, you killed a mother']. Motherhood is glorified in cultures across the world. In the Indian subcontinent, where several mother goddesses are worshipped, child-bearing is particularly deified (Raj 2010). Feminist scholars have contended that the societal glorification of motherly love essentialises females, equating them with their reproductive role (Neyer and Bernardi 2011).

Theme 4: Diets and Animal Rights

Many vegan and vegetarian Instagrammers took offence at meat-eaters posting about the elephant case. It was argued that they were hypocrites for criticising the elephant's 'killers', because they themselves consume the meat of other creatures. The Hindi television channel Zee News covered the elephant case extensively. The elephant was given the Hindu Goddess's name 'Vinayaki' by Zee News journalist Sudhir Choudhary, who urged viewers to follow 'Indian culture' and become vegetarians to stop the massacre of animals. Clips from Zee News were posted under #justiceforvinayaki.

Theme 5: Appropriation of the 'Black Lives Matter' Movement

Around the time of the elephant's death, there were massive 'Black Lives Matter' protests in the United States against the police's brutal treatment of African Americans. The immediate trigger

was the police murder of a black man, George Floyd. #blacklivesmatter was trending on social media worldwide, and with it the seemingly innocuous #alllivesmatter also gained popularity. 'All Lives Matter' has been used to shift the discourse from injustices faced by the black community (Yancy and Butler 2015). Many posts drew parallels between Floyd's death and the death of the elephant, and used #blacklivesmatter and #alllivesmatter. These posts missed the historical context of the Black Lives Matter movement, appropriating the narrative to gain visibility.

Theme 6: Anti-Kerala and Anti-Muslim Propaganda

Kerala has elected several communist governments, and the coalition currently ruling the state is led by the Communist Party of India (Marxist) (CPI-M). Several right-wing Instagram accounts attributed the elephant's death to the inhumane, irreligious nature of Kerala and its people. Posts claimed that despite being the state with the highest literacy rate in India, Keralites frequently join the Islamic State of Iraq and Syria (ISIS), work as servants in the Middle East, butcher cows, and murder elephants. Instagram posts were also used to spread rumors about Muslims being responsible for the elephant's death (Nishant 2020). Kerala's communist government was criticised for not punishing the Muslim killers.

Theme 7: Promotion of Products and Pages

The elephant's death was used by Instagrammers to demonstrate their skills and products. Various media were employed to pay homage to the elephant - sketches, paintings, photography, cartoons, digital sculptures, music performances, and dance performances. Pages used the popularity of hashtags on this incident to promote their own content. A food page created an elephant out of breakfast food, a makeup page posted elephant themed eye make-up, influencers uploaded photographs of themselves with elephants, etc. The incident was also used to sell products like elephant phone covers and soft toys.

Theme 8: Fact Checks

A few posts highlighted the facts of the case, and tried to dispel rumors and tone down the hate campaigns against specific communities or ideologies. However, these posts lacked the emotive content of other posts, and had limited engagement.

Table 3. Selection of Instagram images from the top posts of hashtags #keralaelephantmurder, #justiceforelephant, and #justiceforvinayaki.

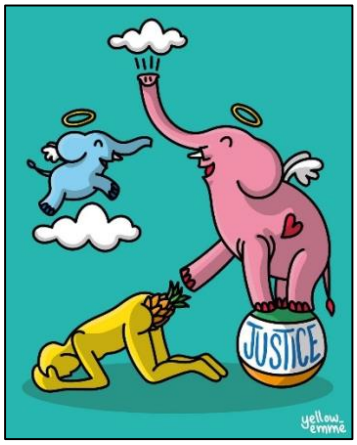


Image 3.1. Post on Theme 1, 'Vilification of Humans' by @yellow_emme

Image 3.2. Post on Theme 2, 'Non-Human Animals in Hinduism' by @artistic_aadi

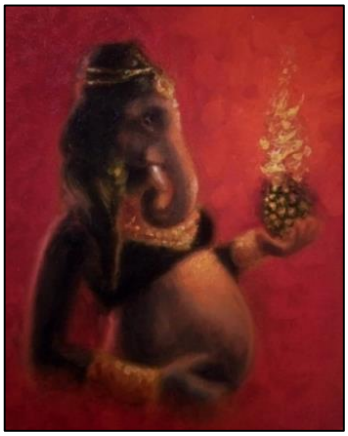


Image 3.3. Post on Theme 3, 'Glorification of Motherhood' by @p.r.a.s.h.a.n.t.98

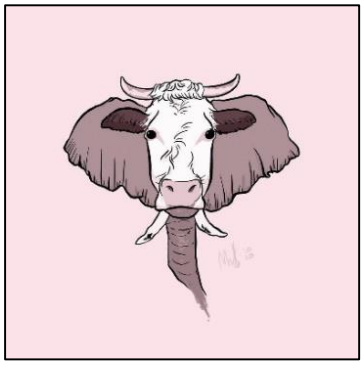


Image 3.4. Post on Theme 4, 'Diets and Animal Rights' by @max.hashi

Image 3.5. Post on Theme 5, 'Appropriation of Black Lives Matter' by @shilzaghori

Image 3.6. Post on Theme 6, 'Anti-Kerala and Anti-Muslim Propaganda' by @the_fauxy

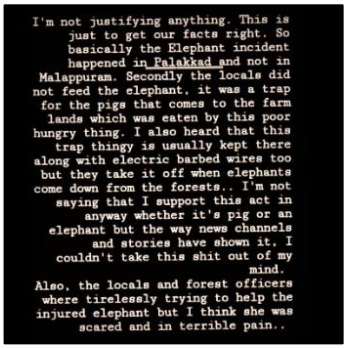
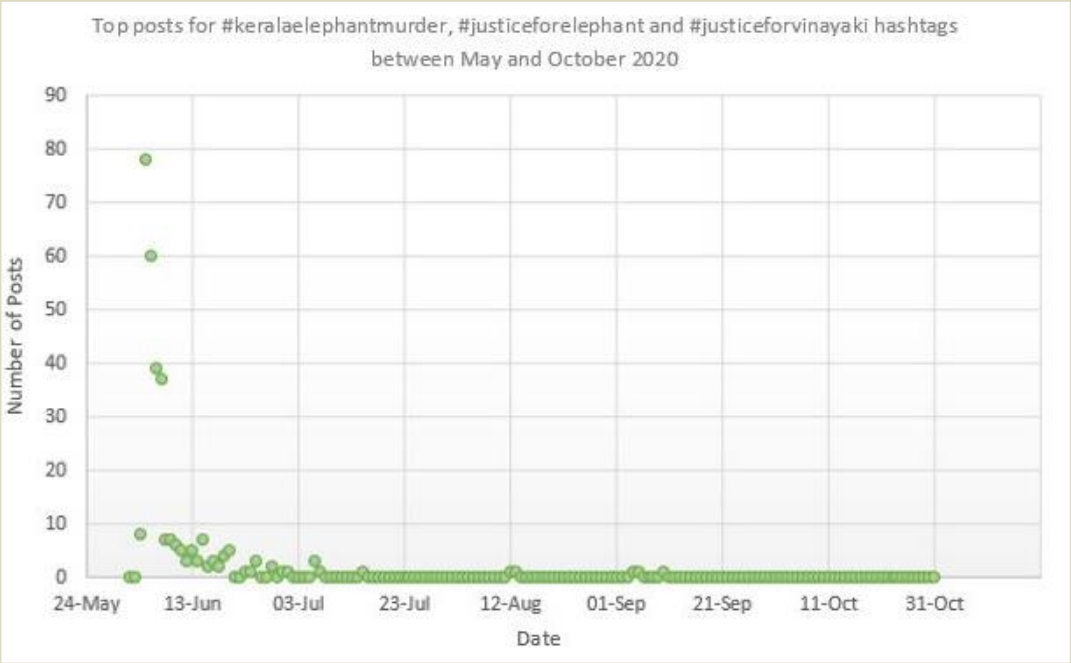


Image 3.7. Post on Theme 7, 'Fact Checks' by @being_vaidya

Images 3.8. Post on Theme 8 'Promotion of Products and Accounts' by @the_culinary_cottage

Graph 1: Posts containing #keralaelephantmurder, #justiceforelephant, and #justiceforvinayaki. Note: N = 300.



4.1.3 Life Cycle of Case-Study 1

The scatterplot shows an initial upsurge and then plummets downwards before resting on the x-axis. In a brief period between 3 June and 7 June, a large number of posts on the elephant case were shared. However, from 8 June, the number of posts began to decline, and eventually died out.

4.2 Case-Study 2: Baghjan Oil and Gas Leak

4.2.1. Background

Oil India Limited (OIL) is the second largest public-sector company excavating hydrocarbons in India. OIL's Baghjan oil field is situated in Tinsukia town in Assam in northeast India. It is situated close to Dibru-Saikhowa National Park and Biosphere Reserve. On 27 May 2020, an oil well in Baghjan exploded, setting fires across nearby villages. Thousands of families were displaced, plant and animal life were devastated, and the ecosystem was further damaged by the water, air and light pollution (Raghunandan 2020). The incident became particularly controversial because the central government had recently passed the Draft Environmental Impact Assessment (EIA) Notification 2020, which is set to weaken the existing EIA system in India. Subsequently, protests and hunger strikes took place demanding compensation for the affected families (Jaiswal 2020). There were also remonstrations against the notification.

4.2.2 Thematic Classification

Through our content analysis of three hundred top posts tagged #baghjan, #baghjanoilfield, and #savebaghjan, we identified the seven themes discussed below. Often multiple themes overlapped in posts.

Table 4: Themes identified in Instagram posts on the Baghjan case.

THEMES	OVERVIEW
1. Images of Devastation	Painful visuals depicting creatures and landscapes affected by the leak.
2. News Updates	Posts providing information and updates from Baghjan.
3. Indifference of Mainstream Media	Criticism of the limited media coverage and outrage over the Baghjan case.
4. Role of Armed Forces	Posts appreciating the Indian army and expressing gratitude for controlling the fire.
5. Calls for Action	Posts used to spread awareness about the leak, gather funding for affected community, and support for on-ground mobilisation.
6. Political Satire	Comments on the apathy of politicians towards environmental and political issues in Assam.
7. Baghjan and EIA 2020	Information and criticism of Draft EIA Notification 2020, urging people to challenge it.

Theme 1: Images of Devastation

Several posts brought forth the devastating impacts of the oil and gas leak on humans and non-humans alike. The first post to draw attention to the incident was a photograph of a charred Gangetic dolphin taken by tour guide Binanada Hatiborua and shared by the Guwahati chapter of the youth organisation Fridays for Future (@fridays4future.ghy). Other posts included pictures of the burning oil well, burning trees, and dying plants and animals. Photographs by Assamese photographer Diganta Rajkhowa (@digantarajkhowa) were widely reposted. Rajkhowa highlighted the human impact of the tragedy by placing Baghjan residents and firefighters in the foreground, and the fire in the background. His photograph of a local couple staring at the blazing oil well has been translated into paintings, sketches, and street art.

Theme 2: News and Updates

Northeastern news organisations have regularly shared posts about the oil and gas leak. Their posts do not mention the human impact of the disaster or local protests; rather they provide updates on the control operation and official statements by OIL India and other government organisations.

Theme 3: Indifference of Mainstream Media

Many posts condemned Hindi and English television and print media for their lack of coverage of the Baghjan incident. Our own observations confirm that the reportage on Baghjan in print and television media was limited in the immediate aftermath of the event. Instagram became a useful medium for the dispersal of information and discussion around the issue.

Theme 4: Role of Armed Forces

Indian army fan accounts also posted about the Baghjan incident, emphasising the role played by troops in controlling the fire, and lauding their construction of a composite bridge to the oil well amid harsh weather and fumes.

Theme 5: Calls for Action

Instagram posts were used to spread awareness about the disaster and gather funds for the affected community. The Guwahati chapter of the climate-justice organisation, Fridays for Future, posted regular updates and images from Baghjan, and organised fundraisers and donation drives. Comedian Abhineet Mishra used video posts to bring the gas leak to people's attention, and also organised a fundraising campaign. Apart from gathering financial aid and amenities, Instagram was used to urge doctors and mental health professionals to provide local communities with assistance.

Theme 6: Political Satire

Instagram posts were used to comment on the apathy of politicians towards other environmental and political issues in Assam such as recurring floods, mining in the Dehang-Patkai Biodiversity Reserve, and killings and incarceration due to protests against the Citizenship (Amendment) Act. In one caricature (see Image 5.4), the former Chief Minister (CM) of Assam, Tarun Gogoi makes light of floods in Assam, commenting 'Even the America has floods!' while the current CM, Sarbananda Sonowal trivialises the Baghjan fire saying, 'Even Russia has explosions!' while pouring *ghee* (clarified butter) in the fire to ensure that it keeps burning. The indifference of the BJP towards environmental disasters in India was portrayed in various cartoons.

Theme 7: Baghjan and EIA 2020

The Baghjan explosion and EIA Notification 2020 are linked because limitations in the existing EIA system in India contributed to incidents like Baghjan, and the new legislation is set to dilute

it further. Environmental pages employed Instagram's 'Live' feature to organise interactive sessions on the Baghjan case and EIA notification. Instagram was also used to invite people to webinars organised on other platforms. Artist Rohan Chakraborty, whose account (@green_humor) has gained massive popularity for environmental illustrations, posted twice about Baghjan and urged his followers to mail India's Environment Minister and Oil India protesting the EIA notification.

Table 5. Selection of images from top Instagram posts on #baghjan, #baghjanoilfield, and #savebaghjan.

<table>
<tr>
<td> 
Image 5.1. Post on Theme 1, 'Images of Devastation' by @fridays4future.ghy</td>
<td> 
Image 5.2. Post on Theme 1, 'Images of Devastation' by @digantarajkhowa</td>
<td> 

Image 5.3. Post on Theme 2, 'News and Updates' by @hello_tezpur</td>
</tr>
<tr>
<td> 

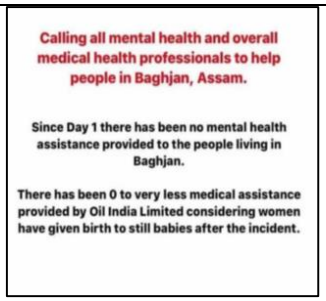
Image 5.4. Post on Theme 3, 'Indifference of Mainstream Media' by @cartoonist_nituparna</td>
<td> 
Image 5.5. Post on Theme 4, 'Role of Armed Forces' by @indian_army_fans2690</td>
<td> 

Image 5.6. Post on Theme 5, 'Calls for Action' by @iawaken.in</td>
</tr>
<tr>
<td> 

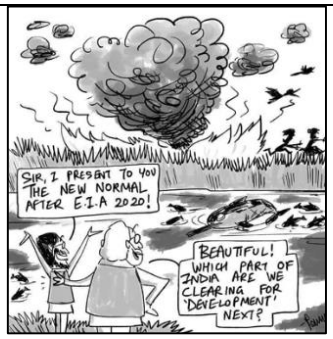
Images 5.7. Post on Theme 6, 'Political Satire' by @ruchirlad</td>
<td> 

Image 5.8. Post on Theme 7, 'Baghjan and EIA 2020' by @green_humour</td>
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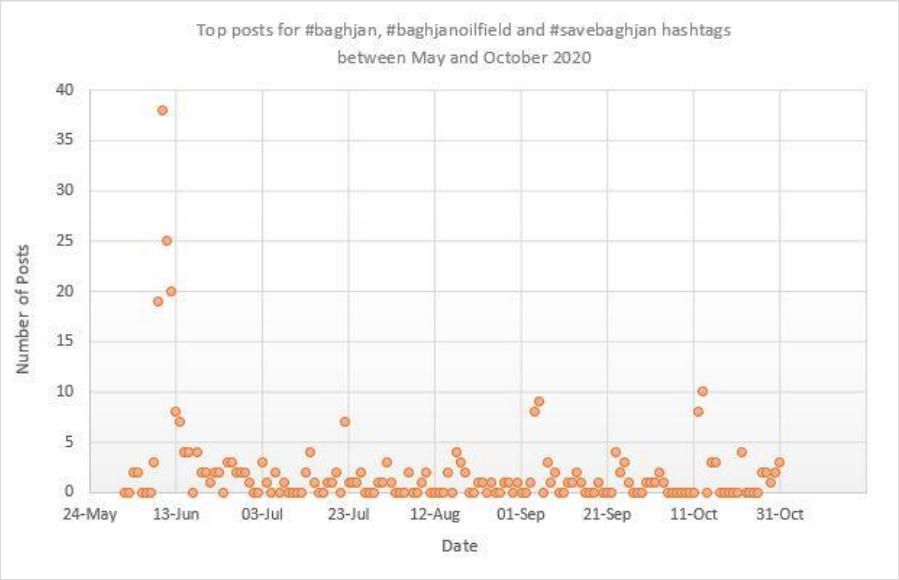
</tr>
</table>

4.2.3 Life Cycle of Case-Study 2 on Instagram

Graph 2: Posts containing #baghjan, #baghjanoilfield, and #savebaghjan. Note: N = 300.



Graph 2 shows an early peak, but the points continue to bubble up in the following months. Thus, in this case while the highest number of posts were seen in the first few days after the blowout, the posts never died out. From June to October, people continued to post about the disaster. The posts hardly ever received the amount of likes and comments that posts on the elephant case did, but the engagement has remained steady.

4.3. Competing Perceptions of Justice

The quest for justice is at the core of both cases, but posts on Instagram reflect different perceptions of environmental justice. In the first case, some argued that people responsible for the death of the elephant should be arrested using legal provisions, others proposed societal changes such as making vegetarianism or veganism mandatory, implying changes in lifestyle in order to empathise with non-human animals. Many argued for capital punishment, lynching and torturing the 'culprits' as the only solution thereby advocating for 'instant justice' and favouring extra-legal procedure. Among the three, most posts advocated for instant justice.

In the Baghjan case, posts advised people to write to central and state governments, pushing for compensation and stricter rules for EIAs in ecologically sensitive areas. While legal solutions were proposed, there were rarely any posts which held the higher officials, bureaucrats and politicians engaged with OIL accountable. Although OIL is a public-sector company, we did not come across a single post urging the government to take definitive action against OIL's regional and national management. We see competing versions of justice here. In the case of human-wildlife conflict in

Kerala, a large part of the audiences had made up their mind about the 'culprits' (Shaji 2020), but in the case of neglectful giant corporations harming the larger ecosystem of Baghjan, we observe no particular identification of the persons responsible and, as a result, no calls for punishments, legal or otherwise.

5. Discussion

In this section we look at the two case-studies together, and discuss the overlaps and contradictions in the light of theory (see Table 6 for overview).

Table 6. Comparing the two case-studies.

THEMES	CASE-STUDY 1 (KERALA ELEPHANT DEATH)	CASE-STUDY 2 (BAGHJAN OIL LEAK)
1. Relationship between humans and non-humans	Human/non-human dichotomy upheld. Livelihoods vilified, complexity of interactions between communities and creatures disregarded.	Humans seen as part of the ecosystem. Local livelihoods not seen as threat to non-humans.
2. Perceptions of justice	Identification and punishment of 'culprits' (through torture or incarceration). Conversion to veganism or vegetarianism.	Provision of financial aid to affected community. Repealing EIA Notification through protest. Particular persons not held accountable.
3. Religion	Religion was a major point of reaction. Connections were drawn with deities and religious texts. Blame placed on Muslims for the elephant's demise.	Posts did not have religious undertones.
4. Timeline	Viral event - intense uproar in initial days followed by silence.	Sustained protest - consistent posts with clear information and goals.
5. Voices	Scattered voices from across the world. Lack of local voices and leaders. Prominence of 'influencers' disconnected from landscape.	Local voices emphasised. Specific pages and people most vocal.
6. Appropriation for sale of products	Furore harnessed for sale of elephant themed products. Criticism of communism.	No attempts to promote products or services.

The image of a dead Gangetic dolphin floating in a contaminated river with its charred skin peeling off was among the earliest photographs shared of the Baghjan leak (see Image 5.1). This image was reposted frequently, used in videos, and even translated into artwork. In the second case, it

was another photograph, this time of a dying pregnant elephant that initiated an outburst of posts. Why did these images garner so much attention, and what does people's reaction to the suffering of these creatures tell us? To examine this phenomenon, we draw from Susan Sontag's essay, *Regarding the Pain of Others* (2003) which centers on wartime visuals of human pain disseminated through traditional media. Sontag argues that although people are surrounded by a blur of content in the modern world, photographs remain the most memorable since the image is the basic unit of memory. She notes that people are inordinately captivated by two kinds of images - photographs of desirable bodies, and those of bodies in pain. While it has been suggested that painful images lose their power over time, Sontag maintains that humans never become entirely habituated to them, and they continue to haunt us. Despite Sontag's framework being limited to human pain, we believe that the same haunting memorability extends to images of non-human suffering, and contributed to our case-studies gaining prominence on Instagram. This observation has important implications since it expands the boundaries of 'Others' in Sontag's thesis and confers non-human bodies with comparable status to human ones. Whether this reaction is an instinctive human response, a characteristic of particular communities and values, or the product of mainstream narratives of environmentalism is a fascinating question which falls beyond the scope of this article.

Sontag further argues that emotions elicited by painful images distract us from asking which events and whose sufferings are left out of popular discourses. In the cases discussed above, there were particular creatures to whose agony people responded with fervor. Was their prominence merely a coincidence? According to Annu Jalais (2008), certain creatures (dolphins, tigers, penguins) have become 'cosmopolitans' of the animal world, i.e., they have been transported into homes, schools, and workplaces through mass media images. Although cosmopolitan creatures are recipients of affection and protectiveness, their complexities are levelled. An unequal relationship exists between those that hold the cosmopolitan worldview, and those who must live alongside them. The elephant in the second case was a cosmopolitan creature whose death was mourned while farmers trying to safeguard their crops were vilified (see Barua 2014). The visuals of the pregnant elephant triggered emotions, but no attempts were made to understand the landscape in which the incident took place. In the Baghjan case, while the image of the dolphin increased the disaster's prominence, many posts also highlighted the human impact of the disaster. Posts depicted the entire ecosystem in the state of emergency, and did not dichotomise the issue as human versus non-human. The presence of local perspectives provided a challenge to the cosmopolitan worldview. Environmental groups like Fridays for Future (Guwahati) enabled the dissemination of voices from Baghjan and people from the region took to Instagram to share their experiences. In the elephant case, the dominant voices were scattered across the globe. The top posts included accounts of Bollywood actors (@aliaabhatt and @anushkasharma), a Hindu temple association (@iskconkurukshetra), the State Bank of India (@sbifoundation), a Taiwanese teacher-artist (@milkhoneyplanet), a Turkey-based news service (@anews), an Egyptian Youtuber (@ayaamostafaa), and an Ecuadorian animal rescue organisation (@rescateanimalec) among others. While these 'influencers' managed to spread the elephant's story rapidly, the absence of

local voices upheld the cosmopolitan worldview and prevented a more nuanced understanding of the incident. It is important to recognise the privilege associated with owning a social media account, and its implications for the construction of digital natures.

Another important question we address here is whether these two case-studies can be characterised as protests or simply as viral moments. Virality is defined as:

> a social information flow process where many people simultaneously forward a specific information item over a short period of time, within their social networks, and where the message spreads beyond their own social networks, to different, often distant networks, resulting in a sharp acceleration in the number of people who are exposed to the message. (Nahon and Hemsley 2013, p. 16)

Virality is not only about the number of likes or views. It is about the speed at which a piece of content reaches people, and the networks it is able to permeate. The case of the elephant can be characterised as a viral phenomenon because it was short-lived and spread to networks across the world. Karine Nahon and Jeff Hemsley discussed the ephemeral nature of virality by plotting the life cycle of a viral YouTube video. Upon plotting dates on the x-axis and number of views on the y-axis, the graph initially soared upward, and then plummeted just as rapidly. In the elephant case, a similar pattern was seen with the number of Instagram posts, which quickly peaked and fell. Viral content has the ability to transverse multitudes of networks, and this was true of the elephant case. On the other hand, the second case can be characterised as a sustained protest since posts on Baghjan did not die out after an initial surge, they have less emotional content, and are more focused on directing action. The protest has also expanded to include other related concerns, such as the EIA Notification 2020.

Viral social media phenomena are temporarily powerful, and this power may be converted into consumer action. In the elephant case, the influence of viral hashtags was harnessed to endorse products and pages. It was also used to make a case for veganism and vegetarianism. These dietary preferences are not innocuous and the ability to follow their strict limitations is deeply entangled with class, caste, racial and geographical privileges (see Shugart 2014; Sathyamala 2019). Not only was consumer action promoted by exploiting viral hashtags, these were also employed to spread misinformation and antagonism around communism and Islam. Further, the promotion of vegetarian diets has religio-political undertones. Yamini Narayanan (2018) has shown that perceptions of animal rights in India are influenced by casteist and speciesist beliefs. She suggests that laws related to bovines are prejudiced in favor of oppressive upper-caste Hindu notions of purity and divinity. Even though Hinduism has been regarded as a 'nature religion' due to the tradition of worshipping elements of nature, this does not necessarily translate into conservation practices. The perception of Hindus as naturalists can be seen clearly in the posts which urge Hindus to reunite with their roots of being elephant devotees and peace-loving vegetarians.

W.Lance Bennett (2012) argued that consumer action can be viewed as a personalised form of politics since individuals tend to mobilise around lifestyle values. He examined social fragmentation and personal action on digital media suggesting there is a decline in group loyalties.

He pointed to personalised forms of political participation on digital platforms, sometimes with political organisations enabling them, sometimes with crowds using layers of social media for action. According to Bennett, the main driving forces are actions based on specific consumer styles or product, and this form of personalised politics can be more successful than other forms of protests. In our study, we focus on consumer behaviour in the light of personalised action for particular discourse on 'environmental justice'. The key question here is whether these cases were a result of coordinated consumer action or a genuine demand for environmental justice. We believe that it was actually both, and that the demand for environmental justice is not mutually exclusive of consumer action, especially in digital spaces. Any attempt to discern the complex nature of our case-studies, both situated in different geographical landscapes, would require further examination into specific economic and social-political contexts.

Let us now look at whether ideas of environmental justice on Instagram reproduce existing prejudices based on socio-economic and cultural position and promote systemic exclusion. Walker (2009a) examined the significance of spatiality and geographies in perpetuating injustices. He used the concept of 'Spaces of Misrecognition', where certain groups of people and specific places are devalued and strategically misrecognised. The people in these landscapes are blamed for their supposed misfortunes and their ecological embeddedness is insignificant for policy-makers and the state. Global financial institutions like the IMF and World Bank have played a problematic role in shaping public discourses by funding controversial development projects in the Global South (Stiglitz 2002). Hence it is likely that Instagram, which is a global platform for activists and advocacy groups, reproduces the existing discourses. The elephant case demonstrates misrecognition of spaces and through the various posts we analysed also upholds the human/non-human binary. A case of human-wildlife conflict in rural Kerala is viewed as a deliberate attempt by farmers to cause harm to a pregnant elephant, and instant and violent punishments were sought as justice. The elephant was not killed in an act of brutality, rather its death was the result of persisting conflict between humans and non-humans. The visuals on Instagram, however, reinforced the existing prejudices of the urban-rural divide.

In their study on the governance of environmental justice in India, Glyn Williams and Emma Mawdsley (2005) observed that the post-independence Indian state has undertaken mass displacement for development projects. Narratives of modernisation, urbanisation, and welfare politics propounded by Jawaharlal Nehru, the first Prime Minister of independent India, still shape the economic rationale in India. The unwillingness to challenge the idea of unlimited economic growth is among the core problems. The policy apparatus and public debates are designed around the conceptually weak idea of development and economic growth, leading to incorrect identification of issues in the realm of natural resource politics and eventually towards poor formulation of environmental policies. These ideas allow us to address why the 'culprits' were never singled out on Instagram posts in the case of the Baghjan oil and gas leak. As a large public corporation, OIL, the company responsible for the devastating explosion, is considered prestigious as it generates jobs and revenue. Apart from this, its location in the small Assamese town of Tinsukia contributed to the lack of coverage, exemplifying Walker's (2009b) concept of 'Spaces

of Vulnerability and Wellbeing' in which he notes that marginalised communities have to deal with an inordinate number of environmental 'bads', further reproducing vulnerability over time and across space.

6. Towards Conclusions

This article illustrates the power of Instagram visuals to elicit emotions, construct virtual natures, and enable environmental protests. An important question here is whether this power translates into action beyond digital spaces. In the elephant case-study there was a lack of clear goals and leadership, but in the Baghjan case the digital uproar did facilitate aid to the affected community from both the state and individuals. OIL also provided compensation to families affected by the disaster in October 2020. However, the battle against the EIA Notification 2020 carries on. Does the lack of government response to public concerns against the new policy reflect the inadequacy of social media movements? It would be simplistic to draw this conclusion since the larger political context in present-day India must also be taken into account. The upper-caste Hindu ideology is not just a dominant discourse in Indian politics and society, it also shapes environmental debates and actions. As argued by Narayanan (2018), religious environmentalism in India promotes speciesism and layered oppressive tendencies, which not only affects the humans associated with certain animals and landscapes, but also adversely affects the overarching environmental discourse based on scientific knowledge and community-driven actions.

Looking at our case-studies, it is clear that voices on social media are divided with regard to environmental justice. In the elephant case, certain posts and comments dismissed the complexities of human-wildlife conflict and demanded punishment for locals. However, it did bring into mainstream discourse the presence of such conflicts and that perhaps these are more frequent than many imagined it them be. In the Baghjan case, most posts tacitly excused the management of OIL by not mentioning them, but the case was effective in highlighting the problems with the Draft EIA Notification 2020. Concerns on social media and its users are dynamic - that is, they do not owe permanent affiliations and loyalty to particular social or environmental movements. Therefore, expecting serious commitment by Instagrammers is not useful. As Goodman et al. (2016) maintain, users interact not only on the basis of mutual interests, but also as consumers.

Methodologically, an important limitation of this work is the absence of insights from Instagram 'Stories', which are only available for twenty-four hours after being posted. This is an important feature of the platform, and is particularly useful for protests since it allows users to speedily share urgent information. Stories may also be functioning as safe digital spaces for protestors due to their ephemerality, and thus there is an urgent need to develop research methodologies incorporating the Stories feature. Another question of who was able to enlist their opinion on Instagram and their respective class and caste background was largely unexplored. Further examination of the social capital of Instagram users, influencers and celebrities is needed. We observed people from all over the world sharing posts and stories on both incidents, and it would be a generalisation to draw premature conclusions based on only two case-studies. Such conclusions would require critical

assessment into the political economy being shaped in the post-pandemic world. In the Indian context, thoughtful enquiries need to be conducted for deciphering the forms of Hindutva (religious nationalism) promoted by the ruling right-wing government, and their far-reaching impact on material, spiritual and cyber culture, all of which have implications beyond this study, especially in the realm of environmental justice.

Appendix A

Image credits:

Image 3.1
Maggiolo, M. [@yellow_emme] (2020) In the end, what goes around comes around! [Instagram] 11 June. Available at: https://www.instagram.com/p/CBTRPhKgAJF/ (Accessed: 10 November 2020).

Image 3.2
Gadade, A. [@artistic_aadi] (2020) How can we be so selfish and cruel for our life, that we can't save our nature🌿🍃 and animals🦏 around. [Instagram] 6 June. Available at: https://www.instagram.com/p/CBGi-wEJCi4/ (Accessed: 10 November 2020).

Image 3.3
Naikode, P. [@p.r.a.s.h.a.n.t.98] (2020) त्याला देवंपण देणारेही आपणच... आणी राक्षसी वृत्तीने त्याचा जिव घेणारेही आपणच... [Instagram] 4 June. Available at: https://www.instagram.com/p/CA_-WDXjImN/ (Accessed: 10 November 2020).

Image 3.4
Hashi, M. [@max.hashi] (2020) Sometimes the difference is our perception. [Instagram] 7 June. Available at: https://www.instagram.com/p/CBJExarDHSq/ (Accessed: 10 November 2020).

Image 3.5
Ghori, S. [@shilzaghori] (2020) #blacklivesmatter✊🏽✊🏾✊🏿 ...⬅️ 🚫🚫🚫🚫 #alllivesmatter. [Instagram] 6 June. Available at: https://www.instagram.com/p/CBGS8WdFvSM/ (Accessed: 10 November 2020).

Image 3.6
@the_fauxy (2020) 5 Things To Know About Kerala. [Instagram] 4 June. Available at: https://www.instagram.com/p/CBBcPaxgYjH/ (Accessed: 10 November 2020).

Image 3.7
@being_vaidya (2020) Don't spread hatred, anyway if a person does something extremely wrong. That doesn't mean that entire state is wrong... [Instagram] 4 June. Available at: https://www.instagram.com/p/CBAsKhwjTPa/ (Accessed: 10 November 2020).

Image 3.8
@the_culinary_cottage (2020) She was pregnant. She was hungry. She did a mistake. She believed humans. This manmade blunder tears my heart apart. [Instagram]. 4 June. Available at: https://www.instagram.com/p/CBAaydYHw8i/ (Accessed: 10 November 2020).

Image 5.1
Fridays For Future Guwahati [@fridays4future.ghy] (2020) Binanda Hatiboruah, a birder and tour guide was the first to post images of an oil spill spreading across the Maguri wetland in

Assam. [Instagram]. 6 June. Available at: https://www.instagram.com/p/CBGSc1XHiW8/ (Accessed: 15 November 2020).

Image 5.2
Rajkhowa, D. [@digantarajkhowa] (2020) Baghjan, Tinsukia, Assam Gas well blowout: The fire at Baghjan 5 has inundated homes and adverse damage to the flora… [Instagram]. 11 June. Available at: https://www.instagram.com/digantarajkhowa/ (Accessed: 15 November 2020).

Image 5.3
Hello Tezpur [@hello_tezpur] (2020) Enough already. [Instagram]. 22 July. Available at: https://www.instagram.com/p/CC8M_cuHupK/ (Accessed: 15 November 2020).

Image 5.4
Rajbongshi, N. [@cartoonist_nituparna] (2020) #NationalMedia #BaghjanOilSpill #Baghjan #BaghjanFire #SaveBaghjan #Assam. [Instagram]. 10 June. Available at: https://www.instagram.com/p/CBQ3XsgHURg/ (Accessed: 15 November 2020).

Image 5.5
@indian_army_fans2690 (2020) NationFirst #HarKaamDeshKeNaam #IndianArmy bridging operations near the blowout site of #Baghjan Oil field. [Instagram]. 26 June. Available at: https://www.instagram.com/p/CB4Z4i6JFfT/ (Accessed: 15 November 2020).

Image 5.6
@iawaken.in. (2020) #Baghjan needs our help! Follow @fridays4future.ghy_ for more Information and how to help. [Instagram]. 12 September. Available at: https://www.instagram.com/p/CFCmN1NJ_tW/ (Accessed: 15 November 2020).

Image 5.7
Lad, R. [@ruchirlad] (2020) Assam oil well still leaking gas one week after blowout. About 2,500 evacuated, amid fears leaking oil and gas has killed river dolphins and birds. [Instagram]. 4 June. Available at: https://www.instagram.com/p/CA_bgYID0R1/ (Accessed: 15 November 2020).

Image 5.8
Chakrawarty, R. [@green_humour] (2020) Oil India Limited and the @moefccgoi have the blood of Gangetic Dolphins, birds, fish and the Assamese people on their hands. [Instagram]. 9 June. Available at: https://www.instagram.com/p/CBOUw7Og8oZ/ (Accessed: 15 November 2020).

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Book Review: *Filling the Ark: Animal Welfare in Disasters*

Irvine, Leslie (2021) *Filling the Ark: Animal Welfare in Disasters.* Rev. edn. Philadelphia: Temple University Press. x + 166pp. ISBN:978-1-59213-835-7

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When the Afghan government collapsed in the wake of the Taliban takeover in August 2021, a huge humanitarian evacuation got underway (Wadhera 2021; Zalan 2021; Sabbagh et al. 2021). During this evacuation, UK and international news media reported widely on the actions of former Royal Marine Pen Farthing who, along with his animal rescue charity Nowzad, was engaged in an attempt to get around one hundred and forty dogs and sixty cats out of Kabul to the UK on a privately chartered plane (see for more information Kim 2021; Jackson 2021; Tanner 2021). Farthing complained that the UK Ministry of Defence had obstructed this rescue on the ground, despite the fact that Nowzad had arranged a flight paid for by donations and so did not represent either a financial cost to the Ministry and, as the animals would travel in the hold, didn't represent a 'waste' of space on evacuating flights either. There ensued something of a war of words between Farthing and the Secretary of State for Defence Ben Wallace MP, with Wallace eventually declaring 'I'm not prepared to prioritise pets over people' (BBC News 2021a). Several media commentators expressed disgust that Farthing seemed to be doing precisely that (see for example Downham 2021; Kirkup 2021; Hinsliff 2021). The (frequently vitriolic) debate went viral on social media, with opinion divided as to whether Farthing was a hero or a nuisance whose priorities were offensively misplaced. The foregrounding of this sensationalised, momentarily viral debate, this perceived direct competition of interests, in media of all types served to distract from other discussions about the situation in Afghanistan at the time, including whether or not the UK Government was really being honest with the public, and doing all it could to facilitate the evacuation in general. Farthing had dubbed his rescue attempt 'Operation Ark'.

Leslie Irvine's *Filling the Ark* doesn't deal directly with animal welfare in war, though she does note in conclusion that the principles of her research could usefully be extended to a discussion of if/how animals are considered in warfare. Rather, the book focuses on how animals tend to fare in natural disasters such as hurricanes, and in man-made disasters like oil spills. The point of interest here - and the reason why Irvine's book is, I suggest, of interest to anyone working at the intersection of animal studies, environmental humanities and media studies - is the role of the media in forming responses, and public attitudes, to animal welfare in disasters generally.

Wallace's outburst about the necessity of prioritising humans over animals unwittingly demonstrates the very maxim that Irvine problematises in *Filling the Ark*. The human supremacist objection, uncritically deployed, that we must always prioritise the human over the animal on pure principle is one which will be recognisable to many working in animal studies. Irvine contests the idea that the two things are radically separate - she emphasises, for example, that proper arrangements for pets in U.S. hurricane evacuation orders increase the likelihood of humans obeying them (2021, viii), that 'evacuating animals is part of caring for the needs of people' (2021, 38) and that the deaths of farm animals in hurricanes devastates impacts both the animals and the human farmers (2021, 15). In Irvine's own words, 'animal problems are people problems' (2021, x). Of course, there exists not only this undeniable entanglement of interests and welfare, but the moral and ethical duty humans owe to the animals they force into human service, placing them, as a result, at increased vulnerability to both natural and man-made disasters.

Irvine makes frequent observations that demonstrate the significant role of the media in perpetuating or disrupting inconsistencies in human-animal relations, through choice of language in reporting, extent of coverage, or indeed whether the media choose to report on an incident at all. Examples of media 'interventions' cited include the case of 'Oily Dog', where the recording of the shooting of a small, oil-covered dog after Hurricane Katrina was released on CNN (2021, 25), the negative publicity around animal rights advocates in the wake of disasters (2021, 108), and the way the sea otter became 'media star and metaphor' after the *Exxon Valdez* disaster (2021, 75). By comparison, Irvine points out that 'there is little public outcry or support for the rescue of farmed animals after disasters' (2021, 42) and that, consonant with Peter Singer's (1975) observations about the lack of media coverage of the welfare of farmed animals, after Katrina 'reports of farm animals injured and killed were slow to appear in the media' (2021, 45). Irvine also establishes that animals in research facilities receive 'virtually no media attention' (2021, 84). In both farming and animal research, the sheer scale of the numbers of animals involved is often concealed (2021, 85). Often, it is left to animal rights and welfare advocates to 'make a fuss' in order to ensure even minimal media coverage of the plight of farmed animals and those in laboratories - coverage which is regarded as 'bad press' for the facility owners and their powerful funders (2021, 49). These dissonant attitudes are, to a considerable extent, both shaped and reflected by the form taken by media on the subject, which has a role in both information and education (2021, 111).

This is a new revised edition of the original 2009 text, with a brief preface added by the author to address the relevance of the discussion to the COVID-19 pandemic. The need for a reconsideration of this content in 2021 will be clear to those working in critical animal studies, media and policy. However, as the reference to the COVID-19 pandemic begins and ends with the new preface, this relevance is not expanded upon at any length, which is a shame given the extent to which the pandemic has highlighted so many of the glaring injustices in human-animal relations.

The animals of *Filling the Ark* are divided into four groups - Companion Animals, Animals on Factory Farms, Birds and Marine Wildlife and Animals in Research Facilities. Thinking with mutually exclusive categories can invite oversight and simplification. In this case the posited

distinctions are both structurally necessary and analytically useful, helping the reader to a clear view of the dissonance in approaches to animal welfare in disasters. It demonstrates with great clarity that the human sense of care of, and obligation to, animals varies depending on our sociozoological categorisation of the animal concerned, and the nature of its perceived value (Arluke and Clinton 1996). It also helps to make visible the ways in which media voices (and silences) have the power to reify or reject these sociozoological biases.

Irvine's principal argument is that, far less than simply failing to prepare for or avoid massive loss of animal life in disasters, policy - the expansion of factory farming, riskier oil transport methods, the insistence on often unnecessary animal testing and so on - typically *creates* the circumstances that become disastrous. Irvine argues that, for many animals, the disaster happens long before the hurricane makes landfall, or before the oil spills. It occurs at the moment when the humans who control their fate choose to house them in farms and laboratories that are obviously prone to flooding or choose to engage in capitalist processes that risk the integrity of their wild habitats. The real disaster is the vulnerability before the 'disaster' strikes. Media perpetuations of sociozoological biases that arbitrarily declare which lives have value and which do not further extend the disaster. Irvine quotes the words of Gary Francione, who hopes for a day when 'we will no longer drag animals into the burning house, and then ask whether we should save the human or the animal' (Francione 2000). Ben Wallace M.P., in his response to Pen Farthing, appealed to a fallacy that *Filling the Ark* disproves eloquently. The question is more than whether we *should* rescue animals, be they Pen Farthing's cats and dogs in Kabul or farmed pigs after a hurricane in the U.S. It is whether we are doing what is needed to avoid the need for rescue in the first place.

Irvine's argument is not radical. But that's rather the point.

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