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Framing Nature:

Image Construction, Diffusion and Reception within the Environmental and Climate Movement

Doctoral dissertation by

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"우물에 잠긴 물처럼, 내 맘은 그대 것이오"

</div>

Abstract

Wildfires, record temperatures, microplastics and extensive flooding are among the environmental and climate challenges which stem from processes of degradation engaged in by people. They are also issue areas around which social movement mobilisation has been witnessed, and these are of central interest to the present research. Specifically, this project examines the visual construction and communication of 'Nature' within the environmental and climate movement which is sub-divided into four group types for a comparative analysis. It thereby asks what representations of Nature are used and by what movement groups, as well as how these representations are received at the individual-level by movement members. In a context where existing human-Nature relations contribute to degradation, the question of the extent to which the movement may be engaged in reproducing or challenging a longstanding yet dualistic cultural construction of Nature through a Eurocentric landscape lens is posed. This lens is understood to problematically limit engagement with and understandings of Nature and people's connections to it. These themes were investigated through the adoption of a multi-method approach entailing a content analysis of movement imagery collected online (*n*=724), a survey with embedded visuals conducted with movement members (*n*=137) and a series of supplementary photo-elicitation interviews with group organisers, media team members and visual experts (*n*=8).

In so doing, it was found that points of congruence and divergence existed in the types of Nature-related images shared by movement groups. Moreover, while some of the image themes found may resonate best with members or sympathisers of a particular type of movement group such as protest or conservation imagery, some forms of imagery were similarly received across group types. Contrary to the existing literature, negatively-framed images were deemed the most useful while holding the greatest emotional salience. These findings are thereby important for developing effective communication around pressing environmental and climate challenges across audiences. Although classic 'landscape' images were not seen to be useful as communicative devices, they were nonetheless highly positively received among movement members. This thereby suggested the persistence of an arguably problematic and limiting landscape-associated valuing of Nature. Further research into these themes would meaningfully contribute to an ongoing visual research gap in the area of (climate) social movement studies.

Keywords: Social Movements; Environment and Climate Change; Landscape; Visual Sociology; Communication; Multi-Method

Riassunto

Le sfide ambientali e climatiche legate alle pratiche sociali includono incendi boschivi, temperature record, microplastiche e inondazioni. I movimenti sociali si sono mobilitati su questi temi e questi movimenti sono di interesse per questa ricerca. Nello specifico, questo progetto esamina la costruzione visuale e la comunicazione della "Natura" all'interno del movimento ambientale e climatico che è suddiviso in quattro tipi di gruppo per un'analisi comparativa. Il progetto chiede quali rappresentazioni della Natura vengono utilizzate e da quali gruppi di movimento, nonché come queste rappresentazioni vengono ricevute a livello individuale dai membri del movimento. In un contesto in cui le relazioni umano-Natura esistenti contribuiscono al degrado, c'è una domanda se il movimento è impegnato a riprodurre o sfidare una costruzione culturale della Natura dualistica attraverso una idea "landscape" eurocentrica. Questa idea limita problematicamente il coinvolgimento e la comprensione della Natura e delle connessioni delle persone alla Natura. Questi temi sono stati studiati attraverso l'adozione di un approccio multi-metodo incluso un'analisi del contenuto delle immagini raccolte online dai gruppi movimenti ($n=724$), un questionario con immagini incorporati dentro con i membri del movimento ($n=137$) e una serie di foto-elicitazione interviste supplementare con organizzatori di gruppi, membri del "media teams" ed esperti visivi ($n=8$).

In questo modo, è stato riscontrato che esistevano punti di congruenza e divergenza nei tipi di immagini relative alla Natura condivise dai gruppi di movimento. Inoltre, mentre alcuni dei temi dell'immagine trovati possono essere i migliori con i membri o i simpatizzanti di un particolare tipo di gruppo di movimento, come le immagini di protesta o di conservazione, alcune forme di immagini sono state ricevute in modo simile tra i tipi di gruppo. Contrariamente alla letteratura accademica esistente, le immagini "framed" negativamente sono state ritenute le più utili pur mantenendo la maggiore rilevanza emotiva. Questi risultati sono quindi importanti per lo sviluppo di una comunicazione efficace sulle pressanti sfide ambientali e climatiche tra il pubblico. Sebbene le classiche immagini di landscape non fossero considerate utili come dispositivi comunicativi, erano comunque membri del movimento accolti molto positivamente. Ciò ha quindi suggerito la persistenza di una valutazione landscape della Natura problematica e limitante. Ulteriori ricerche su questi temi contribuirebbe in modo significativo di ricerca visiva nell'area degli studi sui movimenti sociali (climatici).

Parole chiave: Movimenti Sociali; L'Ambiente e Cambiamento Climatico; "Landscape"; Sociologia Visuale; Comunicazione; Multi-Metodo

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List of Abbreviations

ANOVA	Analysis of Variance
API	Application Programming Interface
COP	Conference of the Parties (UN)
EF!	Earth First!
EPA	Evaluation-Potency-Activity
ESS	European Social Survey
FFF	Fridays for Future
FoE	Friends of the Earth
GHGs	Greenhouse Gases
GF!	Groen Front!
IPCC	Intergovernmental Panel on Climate Change
NGO	Non-Governmental Organisation
NSM	New Social Movement
PEA	Protest Event Analysis
POS	Political Opportunity Structures
RM	Resource Mobilisation
RQ	Research Question
RT	Retweet
SD	Semantic Differential
SMO	Social Movement Organisation
UK	United Kingdom
UKSCN	UK Student Climate Network
UN	United Nations
UNEP	United Nations Environmental Programme
US	United States
WWF	World Wide Fund for Nature
XR	Extinction Rebellion

Chapter One: Introduction

1.1 A Visual Study of the Environmental and Climate Movement

Microplastics, air pollution, deforestation and wildfires following record temperatures, with knock-on health consequences for society, are among a number of ever-present challenges. In Europe, for example, the beginning of summer in 2022 brought with it record temperatures of 40ºC in the United Kingdom, and severe drought along one of Italy's major rivers; the Po. These were accompanied by advanced glacial melt and, in forests and grasslands alike, wildfires which not only threatened the natural environment, but posed a threat to society, including through property loss.

Put differently, environmental and climate change challenges remain a pressing issue area. Responding to this field of myriad interconnected issues, however, many social movement groups actively campaign around them. Taking these groups as its central focus, this research seeks to understand the ways in which they visually construct and communicate such challenges and, in particular, how they represent the natural environment in so doing. By undertaking this visual study of the environmental and climate movement, the present research thereby also intends to speak to a call present within the literature which highlights a gap concerning the study of images and climate change, as well as images and social movements. This project is situated at the intersection of these areas, and thus makes a contribution in response to these gaps in existing knowledge.

Three interlinking questions are therefore posed: Firstly, *what representations of Nature are communicated by environmental and climate movement imagery*? Secondly, *how far are identified image themes shared across movement group types*? Thirdly, *how is movement Nature imagery received by rank-and-file movement members*? The first two of these questions focus upon the group-level and use a typology of environmental and climate groups devised from social movement literature. This typology thereby served as the main comparative element developed throughout this project, with groups additionally drawn from three European nations. These countries, to note, were the United Kingdom, the Netherlands and Sweden. The typology, meanwhile, distinguished between higher or lower levels of 'institutionalisation' and 'radicalism', with this elaborated upon in a later chapter.

For further definition, 'Nature' was broadly conceived for the purpose of this research and a capital 'N' used to denote that a (cultural) construct was being considered. This broader

definition allowed for movement groups' own representations of Nature to be identified, rather than prescribing in advance of data collection what qualified as a 'valid' representation. Consequently, Nature in visual materials could extend from a line of trees along a road in an urban setting, to mountain ranges or underwater animals, for instance. Moreover, the image was defined as still photographs, cartoons, illustrations and memes. Videos and other image forms were therefore not the focus of this study.

The first two research questions introduced above were addressed chiefly through a content analysis of movement group visuals shared online through social media platforms (Twitter and Instagram). This resulted in the construction of an image bank comprising *n*=724 Nature-related images which were subsequently sampled and coded for theme identification. The third question extended the focus to the individual level. Here, a survey was conducted with movement members (*n*=137) and was complemented by a series of supplementary semi-structured interviews with movement organisers, media team members and/or environmental visual experts (*n*=8). Under both approaches, images representative of the themes identified through the content analysis were embedded into the questionnaire and schedule, respectively.

Grounded in theory, an additional question was further posed. It asked: *To what extent could the cultural construction of Nature as 'landscape' appear to be reproduced within the movement*? This question therefore draws upon the Western/European cultural construction of 'landscape'. This lens is argued to be potentially problematic through dichotomising human-Nature relations; objectivising and possibly exploiting the latter as a result. The question therefore seeks to understand how far this construction may be present within movement imagery and what the consequences of this could be in turn.

This relates by extension to the broader theoretical basis of this work, in which the 'Resource Mobilisation' and framing aspects of social movement theory become important. With the former, images could be conceptualised as a tool with which groups could compete for and access donations, members and protest participants, for example. The latter, meanwhile, contributes to this but extends consideration into how the dominant and arguably problematic cultural 'master frame' concerning Nature as an external and detached object could be reproduced or challenged within movement visuals; hence the added relevance to the theoretically-derived question above. This particular question is addressed through all aspects of the methodological approach employed by this project.

In the end, it will be suggested that negative frames can hold greater affect and possible use for movement groups aiming to communicate effectively with an audience in order to raise awareness or inform attitudes, for instance. Findings also suggested that classic ('iconic') climate images such as the polar bear can still resonate well with viewers, but that other icons which produced largely ambivalent responses were more frequently used by environmental and climate movement actors. Both run counter to current suggestions within the literature. Among other observations, these findings bear relevance for those involved in the visual construction, framing and communication of pressing challenges like those presented at the opening to this introductory chapter. This includes those visual communication practices designed to effectively engage an audience while attempting to inspire them to act for the benefit of Nature and, interconnectedly, society. Findings thereby hold implications for how social movement actors (or others) may most effectively communicate with both their existing members and, importantly, those who are currently uninvolved yet sympathetic to a group and could consequently be mobilised by targeted communication efforts. Always building towards these conclusions, the order through which the above facets of this research are conveyed will now be considered.

1.2 Thesis Outline

Following the above, this thesis is structured as follows. Firstly, the wider research context will be established, considering the particularities of the 'image' as a sociological object. The discussion presented at this initial stage shall also extend to a consideration of literature conceptualisations of 'Nature'. Drawing both on sociology and geography to enrich this discussion, this chapter will consider 'landscape' as a core cultural construction of Nature in Western contexts. This proceeds the third chapter which takes as its main focus visual studies regarding Nature, climate change and social movements. As such, it serves to situate the research at hand and its contributions at the intersection of studies on imagery and climate change, as well as imagery and social movements; both areas where authors have highlighted a literature gap which will subsequently be addressed. It is in these chapters that a number of 'boxes' appear. These provide visual examples of the scenes and events that are discussed within the main text, drawing upon the surrounding literature's key arguments and the author's own perspectives to both elucidate and expand upon core ideas concerning visual communication and the representation of Nature.

Shifting the focus, Chapter Four draws upon existing literature in relation to the theoretical perspectives adopted for this research. This chapter therefore explores at its core the various strands of social movement theory, with particular interest in Resource Mobilisation and framing. Moreover, this chapter offers a more formal conceptualisation of 'landscape' which reflects upon the work of sociologists such as Latour and Touraine. Through this meeting, the possible existence of what is suggested to be a problematic cultural 'master frame' of Nature within movement visuals is queried. It is from this that the question concerning the extent to which the cultural construction of Nature as landscape could appear to be reproduced within the movement was formed. Through this, classic social movement theory is not only adopted but expanded explicitly into the visual field; representing an important contribution to an underdeveloped aspect of the literature.

After establishing these bases in the literature, attention turns to the multi-method approach designed to explore these themes. Chapter Five outlines the rationale behind case selection, inclusive of the movement group typology. Next, Chapter Six reviews the research questions before giving an account of the three methods used for this study. It provides detailed reflections about each method as a method in general, as well as how they were applied and to what ends. These methods were, to restate, a content analysis, survey and interviews.

The content analysis is discussed first, with Chapter Seven presenting the themes developed from the image bank collected. The first two research questions stated earlier are addressed through this. Building towards an exploration of the survey data which took as its core focus images representative of these themes, Chapter Eight provides an important reflection upon participant demographics. Attention is given to exploring not only who survey respondents and interviewees were, but also the extent to which their demographic profiles may be seen to be in-keeping with notions of the 'typical activist' found within movement literature. This demographic chapter further offers consideration of representativity between research participants and wider public demographics. Here, existing European survey datasets are utilised and comments surrounding the generalisability of findings made.

Chapter Nine takes the survey and complementary interview data to develop an in-depth analysis which speaks directly to the third main research question; namely how movement members receive movement imagery of Nature. The central findings and arguments of the project are consequently contained here, alongside an exploration of the theory-derived question. The tenth and final chapter follows in which key observations are summarised and

conclusions are drawn. It highlights, for instance, how negative imagery – contrary to some literature suggestions – was found to hold the greatest affective capacity and the widest perceived usage for movement purposes by respondents. It also discusses the continued persistence of a landscape valuing of Nature across movement group types which is suggestibly problematic for effective responses to ongoing practices of environmental and climate degradation. Such observations hold the potential for further suggestions to be made around the presence or absence of challenges to cultural master frames and their construction within the environmental and climate movement. Added reflection upon prospects for future research within this interesting and important field are also provided.

1.3 Chapter Conclusion: Movements, Cultural Frames and Environmental Degradation

In summary to these opening remarks, this research centres itself between the study of climate change and the study of social movements, with a particular focus on images. To date, this is a focus which has been underdeveloped in these areas and subject to calls for meaningful research within the literature. To address this, the project at hand asks about what visual representations of Nature environmental and climate movement groups produce and use in communications, how far these are shared representations and, lastly, how members of this movement receive and judge this imagery. Theoretically, the research attempts to build beyond a consideration of images as tactical resources to see the extent to which the movement could be said to challenge the cultural construction of Nature through the Eurocentric landscape master frame or, conversely, how far it could be said to be reproduced by these movement actors.

Using a multi-method approach divided into three stages of data collection, consideration of these questions segues from the initial emphasis placed upon the group level, towards the individual. In so doing, literature suggestions questioning the continued importance or usefulness of negative frames and 'iconic' imagery are themselves questioned. Areas for further research to address existing literature gaps and build from the present study are also proposed, including a comparative focus incorporating non-Western contexts and the use of additional media platforms. Before these concluding remarks are drawn, however, attention must be given to understandings of the natural world and the unique characteristics of the image. It is to this the focus now turns.

Chapter Two: Context

2.1 Introduction

Having outlined the intentions and focus of the current project, greater context will now be given. Specifically, how Nature can be constructed, related to and understood is to be discussed first. This is in advance of a consideration of imagery as a medium in general, including what communicative prospects it holds and why visual representation is of importance and interest to both this project and, indeed, the literature at large. This chapter will begin with the first of these foci.

2.2 What is Nature?

2.2.1 Natural Landscapes: Intentional and Unintentional [1]

Certainly, such a question as to what 'Nature' is or, rather, how it can be constructed lies at the centre of this research. Focusing attention on a point of overlap between sociological and geographical literatures, a number of different conceptualisations exist. For instance, Grove suggested that Nature can be understood as reflecting 'cultural constructions of the non-human environment that are produced through everyday practice as well as particular ecological conditions that, along with other cultural, economic, and political systems, form the context of everyday practice' (2009:209). In this, culture, social relations, an intersection between materiality and construction, as well as the everyday enacted through practice, are all important features. They each inform how Nature and human experiences of Nature can be defined as sociological objects. Many of these core themes will consequently be revisited in what follows.

Elaborating specifically in terms of a Western-centred account, there is a particularly prominent perspective of Nature reflected by the notion of 'landscape' which emerged notably from the Enlightenment period in European history (Doyle, 2007; Wylie, 2007). In this, an underlying 'fascination with the picturesque, rested on a purely visual simulacrum of an idealized nature' can be discerned (Gandy, 2013:1305). For Beza (2010), such appraisal of landscape's picturesque aesthetic relates to assessment, as a comparison between landscapes, and valuation, as a landscape's perceived significance. The author suggested that these link to what is seen

and the cognition it informs (bio-physical aspects), the negative or positive responses produced from this (emotion), and the consequences emerging from the combination of the two (concept). In this way, the aesthetic, beauty-dominated valuation of landscapes does not necessarily relate solely to the physical objects of the landscape itself, but to the effects and affects produced in individuals through the viewing and contemplating of a landscape scene (Beza, 2010).

With a slightly different aim, Nohl (2001) also noted how landscape objects can come to signify a similarly material 'something else' not visible directly in the immediate landscape (what the author refers to as symptomatic). They could have an additionally symbolic element whereby landscape materiality is connected to abstract, normative or value-related ideas. These can concern, for instance, different, idealised ways of life constructed through cognitive processes which draw upon and render comprehensible visible materialities.

Landscape along these lines supposes a delineation between subject and object or, more specifically, of humans and Nature. As a result, the classic Western landscape notion relates to dualism, in a Cartesian sense, with repercussions regarding how Nature is both engaged with and valued by constraining the possibilities for both (Wylie, 2007; also Thrift, 2004). The dualism here is that between cognition – the thinking, seeing human subject – and material Nature, defined as a passive external object.

The classical landscape way of seeing Nature therefore involves casting the latter as an entity which is observed through a detached human gaze; evaluated and understood cognitively from a distance (as also postulated by Kant, amongst others; Beza, 2010; Mavromatidis, 2012; Merriman et al. 2008; Wylie, 2007). It links further to a notion of the 'sublime' in landscape whereby any seemingly expansive, formidable vastness and sensory incomprehensibility of Nature specifically requires understandings to be produced via the mental faculties of cognition and reason (Nohl, 2001). Indeed, for Morton (2007) the very notion of 'Nature' is fundamentally grounded in distance through dualism.

Consequently, Nature as landscape sets people and the environment which surrounds them as unique and separate, with the visual sense predominating for understandings of Nature. In particular, the visual sense also lends itself to subjective mental judgements of aesthetic beauty and pleasure gained from the natural scenes being looked upon. The landscape vision thus renders Nature as valuable on the grounds that it may be relatively and beautifully untouched,

such as with conceptions of wilderness (Cronon, 1996), or reflect 'traditional' pastoral scenes to be admired – and perhaps preserved – for their aesthetic appeal (Nohl, 2001).

Indeed, images are involved in reflections around what are perceived to be better lives, including in the countryside, which can then result in the romanticisation of the bucolic. However, in so doing the difficulties of life in such environments, past or present, are erased from these ideas of 'authentic', desirable experiences and environments (Fineder and Reitstätter, 2021). In other words, the notion of the rural idyll can result in the rendering of challenges and problems associated with these places or times as invisible; these places are, so to speak, sanitised of daily worries or hardship.

As alluded to, such a view holds repercussions for how Nature conservation can be understood; indicating broadly actions which aim to preserve a decidedly visual aesthetic. Conservation efforts have therefore been connected to a conception of Nature which emphasises the protection of places which have the potential to serve as visual aesthetic spectacles to the enjoyment of their viewers (Gandy, 2013; Nohl, 2001). Indeed, such a critique is conveyed by Gandy (2013) who pointed to a perceived anthropocentrism in how Nature is valued, conserved and consumed through the detached, often beauty-centric gaze noted above.

Nevertheless, landscape as a primarily Western cultural construct formed the basis for a photograph-related research project concerning perspectives on the different environments found along the Mount Everest Trek route (Beza, 2010). To elaborate, the mountain landscape was taken as encapsulating an idealised Western perspective relating to values of scenic beauty supported through the romanticised writings and explorations of the 18th and 19th Centuries. Through these, it was suggested that the mountain environment became 'a benchmark of a beautiful landscape' (Beza, 2010:307).

Here, the values granted to natural environments and the consequent possibilities and expectations around human-Nature relations were seen to be reflections of culture. For Western accounts of mountainous regions, the author claimed that they are valued both for their visual beauty and for how they are perceived as representing pre-industrial and technological periods in the West. They are thereby associated with notions of a 'better and simpler life' since lost due to development (Beza, 2010:306) (Box 2.1). Certainly, Fineder and Reitstätter (2021) similarly suggested that the idealisation of seemingly more authentic times and (rural) places

through images reflects the current, contrasting everyday experiences and circumstances of the (urban) viewer.

Beza's project was at least partially problematic through the way in which the central interest in exploring how the mountain landscape is perceived and valued by Western visitors to the Himalayas, compared to local residents, was operationalised. As part of this, the author claimed that, on the basis of how landscape has been considered in the literature, 'all definitions and approaches restrict the term [landscape] as they represent attempts at enabling one to assign visual assessment to objective constructs' (Beza, 2010:307). The author, however, did little to go beyond such restrictions even though mountains were noted to hold other values in terms of flora and fauna, for instance. Instead, the project asked Western tourists and local Sherpa to make aesthetic judgements upon photographic material supplied by the researcher, forming a hierarchy of scenes and their specific features which was solely based on a scale extending to alternative degrees of 'beauty' and 'ugliness' (Beza, 2010).

In so doing, the author was unable to capture how the Sherpa (or, for that matter, tourists) may ascribe values to the mountains that are not fundamentally related to a detached visual appraisal, rendered in the narrowest sense of beauty. As such, in the process of examining ways of valuing mountain environments the author reproduced the classic Western landscape aesthetic and constrained the possibility of responses that relate to other sources of value or, indeed, different experiences of the mountain route.

In the end, the two participant groups expressed a preference for natural beauty with one of the only slight qualifications occurring through the idea that the local Sherpa, who work as guides for tourists, appreciate mountain beauty both in itself as well as because it links to tourist desires to visit; thereby linking to income generation (Beza, 2010). Again, the focus was artificially constrained by the author so findings revolved primarily – and exclusively – around an aesthetic predicated upon visual appraisals of beauty. As will be outlined in Chapter Six, the present study's approach attempted to avoid such pigeonholing at each stage.

Box 2.1: A mountain view

Comment: The above image attempts to approximate what depictions of a romanticised mountain landscape mentioned through Beza (2010) can be. It thereby shows a range of snow-capped mountain peaks with edges extending down towards a body of water and some flatter land bearing trees nearer the foreground. The image is taken from afar, and yet the mountains still dominate the frame given their magnitude.

In one way, it could be taken as curious the claim Beza (2010:306) raises about mountain scenes such as these bringing to mind notions of a 'simpler', past way of living. This is because the mountain environment like that of the above photograph does not directly show past ways of life. The means by which the mountain could come to be associated with such a notion – an arguable nostalgia – demonstrates precisely how images and, of added interest for this research, Nature, can be attributed different (cultural) values and identities. Consequently, the mountain image ceases to only show a geological formation, impressive as it is, but becomes a reference point for a sense of loss as (Western) societies proceeded through the industrial and into the post-industrial period. This is marked, for instance, by greater urbanisation and thus an increasing detachment from life linked intimately and directly to the land through past forms of agrarian existence, for instance. This, of course, would represent also a particular, curated vision of the past where it is rendered docile and idyllic despite the hardships that would have existed (Fineder and Reitstätter, 2021).

Such ideas of the past linked to these landscapes, however, could perhaps also be witnessed in modern popular culture through the fantasy genre of film, tv, games and literature. These cultural artefacts, to elaborate, also draw on vast, rugged environments but coupled instead with themes of adventure, quests and magic. In this way too, then, mountains have also been subject to cultural framings and connotations which can be understood and inferred by viewers even where there is no directly visible trace of that which is being perceived. In these ways, mountain scenes are opened up to cultural readings which are tied intimately to the imagination and extend beyond the present, or even the real, into different times, lives and worlds. In this, mountain imagery could be suggested to be powerfully evocative for viewers in numerous ways. It also, therefore, points towards the polysemic character of imagery should such a scene be viewed through the mediation of a photograph, such as that presented above.

Source: "Aoraki/Mount Cook", Bernard Spragg (CC0 1.0).

Furthermore, there is an arguably perceivable overlap between the association made between mountains and past modes of living, and mountains as part of the Western, Eurocentric 'landscape' frame which is important to the present research (indicated also by Beza, 2010). To elaborate, the past pre-industrial life could also be captured by the cleanliness and freshness of the depicted environment (cf. images of litter; Beza, 2010). It appears, therefore, as a contrast against urbanised environments polluted through traffic and similar occurrences. Moreover, the mountain itself as a longstanding physical feature can be imagined to have stood for much longer than busy city centres and mass industry have existed, re-emphasising the possible linkages to an idea of the past. Put differently, mountain scenes can be presented as pristine, wild and relatively untouched by humans. This cleanliness thereby presents the possibilities of a better, healthier life, and this perhaps accounts for their usage in various advertisement campaigns linking products to healthy, active and fun lifestyles (see Houghton, 2019).

These ideas can be used to point towards another observation, however, that a wilderness landscape vision like that linked to the mountains can hold colonial connotations. If mountain or similar landscapes represent a simpler life, for instance, then what of the people who do live there? How are they caught up in a Western cultural construction and value structure surrounding the site of their home and livelihood? What are the consequences upon their own identities and agency? While not elaborated on directly here, this is a theme covered in Chapter Three with particular reference to the work of Cronon (1996) and Brígido-Corachán (2017).

Gandy (2013, 2016), however, offered an alternative conceptualisation of Nature through focusing upon urban spaces. Specifically, this author drew attention to 'unintentional landscapes', or 'wastelands', as 'an aesthetic encounter with [N]ature that has not been purposively created. It is a space that has nonetheless undergone some form of sensory enframement, perhaps only momentarily, as a focus of attention' (Gandy, 2016:434). These sites, the author suggested, can incorporate roadside verges and the spaces between buildings, as well as disused industrial areas (Gandy, 2016) (Box 2.2).

Consequently, these spaces where Nature has emerged spontaneously and in a non-designed, non-beautiful, non-functional nor curated manner form sites of disjuncture with regards to the picturesque, idealised and visually pleasing landscape construction. Certainly, they have been conceptualised as spaces which can evoke different positive and negative experiences, instilling in the momentary viewer feelings of anxiety, fear and disdain, or alternatively presenting themselves as places of exploration, discovery, as well as stimulants for the imagination; a tension in their existence (Gandy, 2013, 2016). Indeed, for Nohl (2001), spontaneous Nature in landscapes offers greater possibilities for perceptual engagement,

experience and (cultural) meaning than functional spaces which reproduce large-scale land use management and standardised development practices.

With ambiguity in how these unintentional landscapes can be understood and engaged with, they challenge the classic Eurocentric notion of landscape as fundamentally prioritising cognition in relation to the enjoyment gained by viewing Nature as an aesthetic spectacle through the 'social production of space' (Gandy, 2016:434; also Gandy, 2013).[2] While landscapes in this classic sense are thereby held to have cultural value, those that are unintentional are perceivable as empty, unproductive and valueless spaces indicative of wasteland (Grady, 2013).

There is the resulting risk that their own characteristics, potential and arguable values are lost since they are viewed and judged in accordance with the more popular landscape frame of experiencing and valuing Nature, against which unintentional wasteland spaces can present no aesthetically-pleasing features (Gandy, 2016). Nevertheless, for Gandy (2013, 2016) these spaces can engage more senses and imagination processes than is allowed by an emphasis on visual appraisal seen with intentional landscapes encapsulated within a particular Eurocentric cultural construction of Nature.

There is another lens through which these 'marginal' spaces can be viewed, but as with the aesthetic focus, it too frames these areas as valueless. This concerns a more functionalist or utility-centric perspective, again relayed by Gandy (2013, 2016). Here, the unintentional landscape as wasteland was referred to in terms of redevelopment and so as a space, valueless in and of itself, which is subsequently to be removed. They can also help highlight one of the features of urban wasteland spaces that, beyond the different means of engagement and experiences which become possible, there is an added complexity in how these sites came into existence in the first place (Gandy, 2013).

While emerging spontaneously, unintentional landscapes still relate to human involvement in the environment, including through industrial activities, their cessation and subsequent site abandonment. Simultaneously, they retain the possibility for further human intervention and management for redevelopment purposes, 'landscaping' or the control of non-'native' species under a more functionalist view (with places designated as 'brownfield', for instance; Gandy, 2013, 2016).[3]

Box 2.2: Wastelands and unintentional landscapes

Comment: The images here present a great contrast to the expansive, idyllic and clean mountain imagery reflected upon in Box 2.1. Instead, the images here could be taken as representing the 'unintentional' landscape and wasteland considered notably by Gandy (2013, 2016).

That on the left relays a disused area positioned between inhabited apartment blocks along a road. The photograph was taken from the edge of the pavement. Preventing easy access to the enclosed space within is a rusty, padlocked gate which also bears a small graffiti tag at the top. The perimeter walls are made of plain, grey concrete. Inside the space itself, there is a large orange tube which extends upwards from the ground. Although not discernible within the reproduced photograph, this object adds intrigue to the viewing of this space, in part because it contrasts against the rest of the interior scene in which no additional construction-related elements are present. Additionally, questions around what used to be there before the site became disused or, perhaps, what is being planned as part of a new development on this otherwise unused land are raised.

Contributing to this are the trees which reduce the possible size and shape of any structure which used to stand on this small parcel of disused land in Milan. Moreover, they appear tall and old, and so perhaps predate the orange tube which similarly extends upwards from below the topsoil. Did they form part of a garden around a small household in the past? While the gates are large enough for vehicles to pass through, there is no obvious sign of a driveway on the other side, raising yet further questions and intrigue about what this space is, was or will be; and how, therefore, it can best be understood. Lastly, if there was no previous driveway for vehicles despite the large gates, then why was this land never developed unlike the lots to either side? Attempting to understand and give this space meaning thus requires a more protracted engagement compared to the earlier mountain scene which is readily interpretable through existing cultural frames of picturesque, wild landscapes; the past and fantasy.

The grass which covers the ground, however, does not appear to be overly long and small piles of branches lie towards the far end of the space. These both indicate that the site has perhaps not been completely forgotten or abandoned, but may be infrequently managed. When the last time was, and why there appears to have been no maintenance in the recent past also remain open questions as a result. These questions continue to go without answer, and so there is a persistent indeterminable quality to this place which exists long after it is directly encountered.

Source: (*left*) "Via Verro, Milan, Italy", the author; (*right*) "Viale Toscana, Milan, Italy", the author.

Box 2.2: *Continued*

Finally with regards to this space, there are purple wildflowers growing just beyond the gate which arguably provide some aesthetically-pleasing element. However, they may contrarily be viewed as weeds growing only because the land has been neglected; becoming an unkept, unpretty part of a wasteland depending on the dispositions of the viewer. These alternative and perhaps simultaneous views on this space again speak to an indeterminable character reflecting the discussions of Gandy (2016) and, on flora, Trudgill (2008), which are considered in the current Chapter.

Another similar space is relayed through the image on the right (above). This area, also in Milan, Italy, is situated along a larger main road. The photograph was taken from in-between the narrow bars of an old metal fence, which was peered through while standing on the pavement beside the road. From the street it could be easily passed without notice, and perhaps is by many who walk along this stretch of pavement.

Immediately, this place appears as a large abandoned wasteland; an overgrown area without development surrounded by functioning infrastructure and inhabited apartment blocks. In the foreground of this image, thick shrubbery and weeds dominate. Dark, they imaginably provide cover for smaller wildlife, although perhaps not the most liked creatures (spiders and rats, for instance). That said, this could be used to suggest that weather can be an additionally important feature regarding how landscapes are judged (Nettleton, 2015). On the day the above photograph was taken, grey clouds dominated and emphasised the imposing darkness of the undergrowth. The weather could thus be seen to provide a desolate, glum atmosphere around this disused space which facilitates a more negative interpretation of it. Had the weather been sunny, then perhaps the shrubs would still have been seen as untidy and unpleasant, but maybe as being in use by birdlife or other (generally preferred or more appealing) wildlife.

Again, as with the other photo considered here, there was some also graffiti on the fence to the left which is not overly visible in the reproduced photograph. This indicated some means of gaining access to this site if an attempt is made, although there were no clear entrances along the main road from which this view was captured. It indicates further that the thick, dominant shrubbery is not – or has not always been – present, and thus suggests processes of change over time even in seemingly neglected spaces.

This neglect is suggested further by the long grass beyond the foreground, extending up to the residential buildings in the distance. In the middle of this ground stands a lamppost which raises questions concerning the use of this wasteland. Does the lamppost speak to a story of an intended yet stalled development of a new residential street or park, or does it stand as a last reminder of something which previously existed on this site? Once more, these questions remain open and unanswered during and after the encounter with such environments.

In short, the spaces encountered in the images above provide an intrigue around past and future uses and what may inhabit the overgrowth. They can raise questions around how people gained access to add graffiti to the fences, why certain elements are present (such as the orange tube or streetlight) and, with wildflowers, a degree of natural prettiness and passing aesthetic appeal (unless viewed as invasive weeds; Trudgill, 2008).

While unintentional landscapes are not necessarily the most aesthetically beautiful spaces, and hold little or no value in this respect, they do have other types of value insofar as ecology and biodiversity are concerned (Gandy, 2013, 2016). Indeed, value can rest more widely on a perceived 'harmony' between biodiversity and landscapes as a source of non-aesthetic value (Brittan, 2001), or between the different components that make up a single unique landscape of which intimate knowledge can be held (Nohl, 2001).

It was along these lines that Trudgill (2008; also Trudgill, 2001) investigated 'biogeographies' or, put simply, perceptions about what constitutes 'British' flora under the frame of a changing environment related to climatic shifts. The author highlighted how from the 19th Century a notion of 'native' vis-à-vis 'alien' species of flora developed. The latter was seen as invasive, unwanted, out-of-place and, in turn, as entities to control or remove since they were counter to normative values and expectations around 'landscape' (also Beza, 2010). The former, meanwhile, was to be celebrated, protected (including from alien species) and, as native, deemed appropriate to that space (Trudgill, 2008). There are, then, notions of belongingness granted to certain species but not afforded to others.

This is interesting when coupled with the discussion of ecological value presented by Gandy's unintentional landscapes in which a variety of flora and fauna can emerge, including that which is rarely found in a given geographic region (Gandy, 2013). Under a cultural framing of Nature which emphasises visual aesthetic and pleasure as core values, such ecological diversity – an undesigned mix of 'native' and 'alien' plant species – renders the 'invasive' as unnatural, detestable and unpleasing to the eye; as 'weeds' (Gandy, 2013; Trudgill, 2008) (Box 2.3). In this, mentioned too was how conservationist efforts draw directly from cultural and historic conceptions of what belongs and, by extension, what does not. They are consequently oriented against perceived alien flora in protection of that which is seen to belong (on technology as 'alien' see Brittan, 2001; Nohl, 2001).

In making this point, Trudgill (2008) presented a wider claim around how conservation and related ways of seeing and knowing Nature are grounded in cultural constructs. This includes ideas about belongingness as a set of normative values, and how these may feed into emotional attachments (also Gandy, 2013). Based on this discussion, landscapes thereby involve elements of both presence and (desired or missed) absence (Merriman et al. 2008).

Box 2.3: The belongingness of flora

Comment: Consider the above image. It can be viewed as representing a picturesque aesthetic scene, understandable through the landscape lens. It is, a primarily visually-appraised and appealing place. But what can be said of the flora, specifically? The tall yellow flowers arguably seem appropriate to the rest of the landscape, giving the overall impression of a strong and clean environment. The flora could therefore be said to hold a belongingness in this pastoral location. The scene as a whole can then be interpreted as relaying a calm, coherent and idyllic form of Nature within what appears to be a semi-managed agricultural area (indeed, the photo title refers to these as fields, indicating an agricultural element to this bucolic place).

Source: "A path through a field of yellow flowers. Belarus", World Bank (CC BY-NC-ND 2.0).
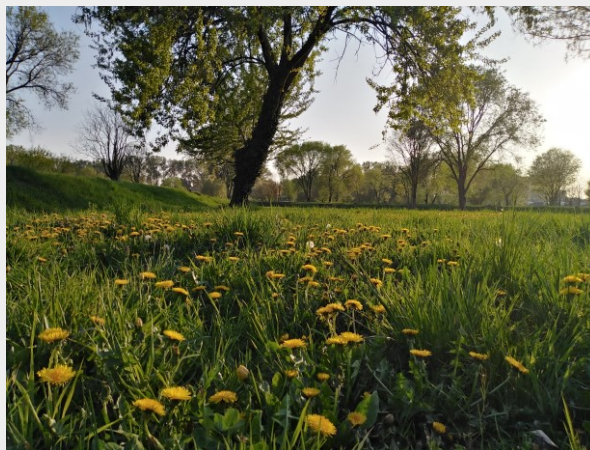
Comment: However, this second image which shows a cluster of dandelions could be read in a slightly different manner. Whereas the flowers in the previous image seem to be appropriate to the environment being shown, dandelions can be considered as a type of weed and, as such, as undesirable. It is nonetheless possible to see them as 'native', however, and so not as being invasive in the sense of not holding a belongingness; but perhaps for some an undesired belongingness all the same. Alternatively, they could be viewed as fairly pretty and bright wildflowers which add to the 'naturalness' of, in this case, a local park; being both native (belonging) and desirable despite general classification as a weed. The flowers in both images could also be seen as beneficial for insect life.

Source: "Parco Ticinello, Milan, Italy", the author.

Moreover, these emotion-evoking attachments based in cultural constructions of Nature have further been considered to potentially motivate actions, including conservation and efforts to control 'invasive' species (Trudgill, 2001). Here, the language used around Nature, such as invasive, native, fragile and pristine can be understood as value-laden terms which themselves reflect and re-entrench cultural values around plant life. This language, however, was also explored by Trudgill (2001) as potentially positive insofar as it denotes shared norms and sentiments which can facilitate communication around Nature, including between different societal groups.

While it can confirm exclusionary categorisations similarly to native vis-à-vis alien, the potential to tap into the cultural constructions around Nature and the associated language that exists. This could be suggested to provide a means by which efforts to produce understandings of Nature and emotively encourage particular behaviours aimed at conserving or restoring Nature could be achieved in line with dominant socio-cultural and historic frames.

This idea would therefore present itself as a possible pathway for environment and climate-oriented movements to engage others on Nature and the threats posed to it by human-related activities. Namely, to employ cultural norms around landscape or Nature in general to highlight perceived issues, challenges and their consequences in order to emotionally motivate people to become involved in campaigns, alter certain behaviours or gain more awareness of depicted problems. This could include the degradation of idyllic scenes and the loss of 'native' species due to poor environmental health or development projects within their habitats.

Arguably, part of the value of conceptualising Nature in this way is to understand and value it not as requiring aesthetic beauty to be distantly gazed upon and cognitively understood. Rather, it provides a point from which to acknowledge Nature in its own right as a series of natural processes and materialities that unfold without the central involvement of a human protagonist; as independent with its own life and vitality (Gandy, 2013). This was captured well through the concept of 'vital materiality' espoused by Bennett (in interview with Khan, 2009). In this, attention was drawn to the delineation of agency between passive objects on the one side, and active human subjects on the other, before being challenged.

As part of the critique of such a human-centric attribution of agency, the vital materiality concept attempts to emphasise ongoing natural processes that are not necessarily perceivable nor interacted with by people, but instead relate to the interactions between objects.

Assemblages become important here, these being a group of agents which can be diverse and interact to productive ends or effects, broadly defined, with 'a distinctive history of formation and a finite life span' (Khan, 2009:93). That said, there still appears to remain a distinction between the human and the assemblages which comprise these forces of vital materiality. Specifically, the agency granted to otherwise passive, inactive objects is retained as being lesser than that of the human subject, with a seemingly continued distinction between the human and the external natural processes represented under the vital materiality frame (Khan, 2009).

To draw a linkage throughout the above, what unintentional landscapes present are spaces which challenge dominant historical and cultural constructions of Nature as a visibly, anthropocentrically beautiful and enjoyable landscape. They open up possibilities for experiencing Nature which engage more senses and question existing understandings of the natural. Consequently, there have been efforts to surpass ideas of subject-object or human-Nature dualistic relations which centre attention on cognitive and logically reasoned renderings of Nature, such as 'landscape'. In this, authors have pointed not to a disconnect, but rather towards an interweaving of body, mind and Nature which informs the identities of the individual, those around them and, indeed, of the natural environment as part of a deeper connection.

The geographer John Wylie is among those who have critically explored these themes, including by relaying central claims from non-representational theory and associated scholars such as Merleau-Ponty. These scholars attempted to build beyond a statist, dualistic landscape notion in geography and anthropology, particularly from the latter half of the 20th Century (Merriman et al. 2008). Emphasis was placed upon a non-dualistic intertwining between body and landscape. The body was conceived as the means through which people experience the world and inhabit the space around them; being 'both *in and of the world*' (Wylie, 2007:149, original emphasis). This pointed towards an understanding of Nature and place which does not rely solely upon nor prioritise the visual unlike the classic European landscape idea, but provides room for other senses, too.

In this vein, Wylie (2005) embarked upon a solo walk along the South West Coast Path in England. Within this, the author charted the senses and feelings that were experienced as a result of passing through place while walking, and the knowledges that were gained of each inhabited section of the path. In so doing, landscape was conceptualised as an entity which is more than something seen and experienced only at a (cognitive) distance. Instead, it formed a

physical input through which people are able to experience the world. This was considered in terms of the materiality of the environment coupled with the sensory perceptions offered by the body in conjunction with these inputs. Subsequently, the author described walking and similar activities as a 'performance' of place which builds particular understandings of and connections to environments through their enaction in the everyday (Wylie, 2005; also Merriman et al. 2008).

With an intention similar to Wylie, and taking place on part of the same path, Sidaway (2009) built upon these notions of a greater situatedness and human-place interweaving. The author drew particular attention to how past experiences and memories can be bound with place as one's own life is intertwined with an area and consequently feeds into place-based knowledges (also Sagoff, 2008). Here, the argument that walking serves as a performance of place facilitative of some of these different, possibly deeper connections and ways of 'seeing' was re-stated. What was being indicated was an embodied engagement with Nature and place in which the narrow set of values granted to Nature insofar as beauty, spectacle or pleasure are concerned through the cultural-historic landscape vision is challenged.

It should be additionally noted that such engagement with and within landscape – a 'doing' rather than a solely cognitive, objectifying gaze – does not preclude the ability to value Nature on the basis of their aesthetic beauty, too (Merriman et al. 2008; SEI and CEEW, 2022). Moreover, while the everyday is oft-associated with practice or performance, it is not necessarily productive of something new but may reproduce what does and has already existed (Merriman et al. 2008). It should not, therefore, be assumed to always result in newer understandings, experiences or relations with respect to Nature.

Other work followed in the overarching direction of Sidaway and Wylie to emphasise the importance of movement through place, including that which examined fell running in the English Lake District. Specifically, runners' movement through this environment was suggested by Nettleton (2015) to provide particular understandings of that environment and the minute details they respond and adapt to through the direct use of their bodies. Subsequently, this highlighted not how the encounter with the Lakes rested upon a narrower detached, visual-cognitive appraisal of the picturesque, beautiful qualities of this landscape. Rather, attention was again drawn to the potentials for more immersive, embodied engagement through the body in motion serving as a 'unifying experience' bringing together and intertwining people, place and Nature (Nettleton, 2015:770).

It thereby becomes possible to speak of ideas concerning 'emplacement' in which mind, body (including movement), imagination, memory, as well as the environment's sensory and material components combine intimately to form knowledge and processes of meaning-making around Nature (Pink, 2009; also the 'aesthesis' concept in Jackson, 2016). It was in this sense that Wylie consequently and interestingly discussed landscape as a tension between the internal subjective, sensing, cognitive being and a material exterior producing 'an intertwining, a simultaneous gathering and unfurling, through which versions of self and world emerge' (in Merriman et al., 2008:203). A sensory, performative meaning-making relatable to Nature and its definition is therefore foregrounded by following these lines of enquiry.

Another complementary and noteworthy concept is that of the 'social aesthetic'. This was again involved in efforts to challenge dualistic landscape notions (Olcese and Savage, 2015). Here, attention was drawn to the possibilities of an embeddedness within Nature which, by value of an everyday embodied engagement with place, feeds into identities and understandings of self, others and the environment; holding possibilities to inform behaviours in turn. This, it was held, represented an important process of meaning-making (Olcese and Savage, 2015).

Through the social aesthetic, the intention was to denote and explore the physical qualities of the natural environment while centrally introducing a crucial role for embodied engagement behind meaning-making and knowledge production. By extension, this was argued as transporting people across spatial and temporal scales as they further inhabit place through their imagination and memory. Olcese and Savage (2015) thereby advocated this non-dualistic conceptualisation on the basis that it becomes important for the construction of social worlds and the ways in which they are experienced and performed throughout the everyday. This emphasis on experience-based understandings of the world which are created through interaction with 'physical and cultural surroundings' while informed by memory and emotion – and not only rational thought – was thereby shared with Dilthey (1976[1910]:203; also Holborn, 1950).

However, while multiple understandings exist around connections to place and related identities (Manzo, 2003), it is possible to place Olcese and Savage's ideas in line with those of place attachment. For example, although conceptualizable as relating to 'not-in-my-backyard' (NIMBY) efforts to prevent developments in one's own area, actions to protect place were discussed differently by Devine-Wright (2009).[5] The focus of attention was here directed towards place not only as a physical, geographic entity, but also as an area attributed with

emotions, sentiments and values by those who experience it; also through the everyday. Moreover, places were understood to be able to inform identities, as with the above, resulting in a place-based identity element that extends beyond a detached visual relation between people and place; the latter substitutable by 'landscape' or 'Nature'.

Of particular interest in this discussion were the ways in which, in the face of local developments, these values and identities bound to notions of place and Nature built through everyday life can consequently be at risk (Devine-Wright, 2009). In turn, therefore, it has been argued that these attachments, emotions and identities are challenged in periods of land use transformation and can thus result in place disruption. This occurs where individuals with deeper connections to place experience feelings of emotional loss, but potentially also in terms of physical distance as people move away from their former areas of residence (Devine-Wright, 2009). A want to preserve these places, including through conservation efforts, could result from this possible disruption. The discussion nonetheless centred on local, known spaces and not those which are distant to a given group of people; a distance potentially related to a disconnect with their lived experience or knowing of place, resulting in less issue engagement (Chapter Three).

Additionally highlighted here are the points that, firstly, attachments to place are not static but changeable, including following certain experiences, happenings or social relations (Manzo, 2003; also Beza, 2010; Pierce et al. 2011). Indeed, places are themselves open to change and processes of re-definition in relation to an 'Other' and senses of responsibility within or between places (Darling, 2009), through the diffusion of landscape perspectives across contexts, or over time through history and different, shifting cultures (Merriman et al. 2008).

Secondly, it suggests an important qualification to the discussion since place attachments and experiences are not necessarily positive, but can be negative where tarnished by poverty, unemployment, crime and unwanted local developments, for instance (Groves, 2015; Steacy, 2017). From the latter, an explicit linkage can again be made to unintentional landscapes and how they are simultaneously spaces of exploration and intrigue whilst evoking fear or disgust, contra to the narrower visual aesthetic-based notion of landscape.

Equally, socio-cultural relations and signification associated with landscape and place can also be threatened by development. It was Mavromatidis' contention regarding globalising cities that, in efforts to promote middle/upper-class investment through economic (re-)developments,

a '*virtual landscape*' to supplant the cultural can emerge (Mavromatidis, 2012:17, original emphasis). Here, social and cultural values, attachments, identities and relations are neglected in favour of another landscape-related construct which emphasises (economic) consumption patterns and lifestyles. While heading towards a slightly wider focus than that of the study at hand, such re-development in favour of commercial images of cityscapes attractive to investors has been seen to result in feelings of disassociation from place and challenge identities and ways of life. Thus, these processes reflect ideas surrounding place disruption and underscore a functionalist perspective that can be adopted around place, space, landscape and, within this, Nature (see Kennelly and Watt, 2012; Watt, 2013).

There are, therefore, linkages to be made between landscape constructions of Nature based on dichotomised relations and environmental degradation (with its knock-on effects for human health and wellbeing). Echoing much of this argument, it has been raised how 'Society's disconnection from [N]ature has been acknowledged as a root cause of the current ecological decline', with this grounded in the externalisation and commodification of Nature (SEI and CEEW, 2022:70). This discussion can nevertheless be broadened to not only speak about environmental degradation with associated challenges such as deforestation or biodiversity, but also to the deeply interlinked issue of climate change.

2.2.2 Climate Change

The discussion of Nature can therefore be expanded beyond debates around the imbuing of aesthetic or more connected, co-constituting values in human-Nature interactions. Through environmental degradation it can also be linked to climate change, a second area of interest in the present study. Specifically, environmental destruction through processes such as deforestation (with the associated loss of habitats, biodiversity and carbon sinks, in addition to issues with subsequent land use practices) contributes to climate change. Climate change in turn contributes to environmental degradation (for instance, glacial melt, drought and sea-level rise). It thereby forms an interconnected process conceivable as a feedback loop.

To provide a formal introduction, climate change is definable as long-term increases in the overall temperature of the Earth with consequences for weather patterns, drought occurrence and ice melt alongside other related issues (Doyle, 2007). While climatic shifts have been charted throughout history and the archaeological record, what is of greater concern here is

anthropocentric, or human-induced, climate change which can most simply be placed in terms of the release of greenhouse gases (GHGs) stemming from societal consumption patterns into the atmosphere. Such GHGs incorporate carbon dioxide (CO_2) and methane (CH_4), amongst others (Jang and Hart, 2015). Commonly, atmospheric greenhouse gases are related to production and consumption activities, including from energy supplies and the use of transport modes such as private cars or commercial airlines; these relying predominantly upon the burning of fossil fuels (Doyle, 2007). The associated term 'global warming', to note, refers more specifically to rises in the overall average global temperature under the wider climate change label (Fownes et al. 2018) (Box 2.4).

Moreover, climate change is global and inter-generational, but also comprises myriad unseeable or otherwise intangible aspects. Climate change has thus been deemed to be a 'wicked' issue requiring cooperation between different actors in order to address the multiplicity of climate-related challenges and events which cross traditional borders; whether geographic, political or generational (McEvoy et al. 2013; Vink et al. 2013; Williams, 2006). However, these different actors can hold varying perspectives, values and approaches towards the climate (Jang and Hart, 2015).

In such a context and as a long-term challenge, science has been considered as central to relaying and legitimising understandings of climate change and its potential consequences. This includes scientific predictions which are grounded in GHG emission trajectories based on current usage and growth rates (Doyle, 2007).[6] Recently, the call has been to limit global temperature rise to 1.5°C with this relating to the notion of avoiding certain 'thresholds' which, when passed, increases possible climate impact severity (IPCC, 2018; Manzo, 2010a). Nevertheless, these projections concerning 'dangerous' climate change impacts are still references to an unknown, intangible future and so can once more be difficult to comprehend. This is especially the case since climate change is a multifaceted issue (Hoffbauer and Ramos, 2014).

Box 2.4: 'Warming stripes'

Global temperature change (1850-2021)
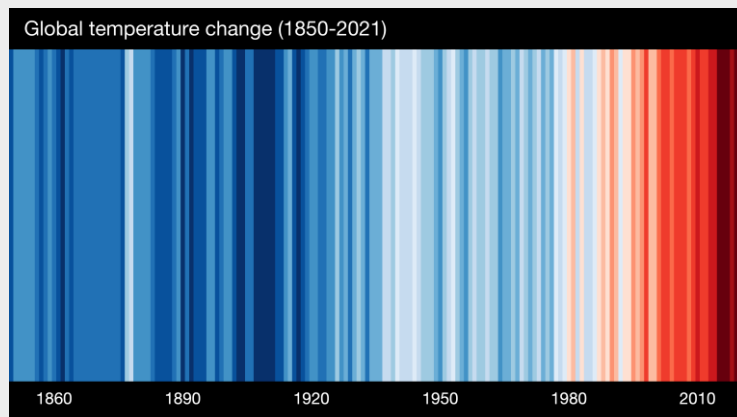
Comment: One means through which to visually represent temperature changes across time and place are the 'warming stripes' like those in the image above. This is a strongly visual means of conveying global warming with only minimal text used. Through this, it indicates the way in which colours and their shades can be used in a symbolic way to convey certain meanings. Here, for instance, the blue indicates cool or cold periods, while red indicates warm or hot periods of time; lighter shades representing less severe cold or warmth, respectively. As a result, in the context of 'global temperature change' a progression from a long period of cooler temperatures to a warmer period in the present can be quickly understood. Moreover, with attention to shading the darkest red, and therefore the hottest temperatures, can be seen to have been reached in a short amount of time. These stripes thereby communicate a rapid increase in temperatures since, approximately, the year 2000 through this symbolic colour usage; with the darkest red periods being more common than not over the past decade.

Additionally, another cultural understanding and use of colour is interpretable here through the way in which (at least in the UK where these stripes were first designed), red symbolises danger as well. In this context, the temperature change graph could be read as showing a rapid increase in levels of danger concurrently with increasing temperatures. There is thus a (culturally) understandable double meaning to this visualisation of global warming (on colour, Chapter Nine).

However, it perhaps does little to persuade or inform people with doubts, large or small, around the existence and/or seriousness of climatic change. This is relatable to how there is little information about the data (which came from meteorological records and, as the source website indicates, the UK's Met Office in particular), as well as how the story this image tells is purposefully simplistic yet perhaps not overly informative about what is going on and, crucially, why, as a result.

It says little of the causes and nothing of the appropriate response that viewers can take. As will be discussed in detail within later chapters, the absence of this guidance around possible actions to take in relation to the presented issue, as well as limited responsibility placement, are common features with climate imagery. It may be that this image of 'warming stripes' is insufficient to challenge scepticism or, in general, to inform a wider audience about climate change by itself, and may thus be better used in concert with additional visual materials as part of a broader narrative construction. On the other hand, for those who already hold concerns about climate change, this image could serve as a stark reminder and indication of issue seriousness and urgency, while reinforcing their views concerning this challenge, including its importance as well as the need for more immediate action.

Source: "Warming stripes (global temperature change, 1850-2021)", Ed Hawkins/University of Reading (CC BY 4.0). Available: https://showyourstripes.info/l/globe (accessed 16th May 2022).

In this sense, to perceive climate change as an issue that necessitates behavioural change among a motivated public in the present forms a crucial difficulty in encouraging climate action and communication (Nicholson-Cole, 2005), including through visual mediums. Indeed, to anticipate later discussions, Latour et al. (2018; also Hoffbauer and Ramos, 2014, amongst others) highlighted how images can hold the capacity to encourage an audience so that they feel increasingly able to address complex, possibly daunting issues like climate change. The image will now be addressed.

2.3 The Importance of Imagery

Conveying and producing understandings of Nature strongly relates to its visual communication, including landscape art and associated aesthetic values as one example.[7] Imagery as a medium to inform or perhaps challenge dominant perspectives regarding Nature and the ways in which it is engaged with and experienced would therefore appear important. According to the literature, visual communication is also on the increase within society, including as part of organisational outreach strategies (Baele et al. 2019), as well as through social media such as Instagram where engagement and shareability are directly linked to the image (Wang et al. 2018). Indeed, the visual has been held to be crucial to the production and ensuing consumption of mass communication, and so images are an important form of data to be treated seriously (Grady, 2001). Put simply, images permeate society (Prosser and Schwartz, 1998).

The remainder of this chapter will therefore consider imagery in general while the following chapter narrows the focus to literature concerning visual representations of Nature, the climate and social movements more specifically. Both parts will consider what images can relay and their use for various ends, amongst other aspects. To note, while many studies focus upon imagery as still photographs, the 'image' is definable to a greater extent to incorporate artworks, graffiti, video games, cartoons, memes, (scientific) graphs, film and similar (Grady, 2001; Harper, 2002; Jones et al. 2022; Sassatelli, 2011; Wang et al. 2018).

There are numerous studies which look at images, taken to denote photographs, in order to explore their position in family life (Becker Ohrn, 1975; Collier, 1957), how they construct domestic space productive of 'home' (Reme, 1993; Rose, 2003), how photography can be used to express a sense of self and convey perceptions of one's local environment (Aitken and

Wingate, 1993; Kennelly and Watt, 2012), as well as regarding gender construction in relation to advertisements and other visual media (Frith et al. 2005; Goffman, 1976; Sassatelli, 2011).

Among literature perspectives, imagery has a number of potential functions and constitutive elements that are important to consider. One such aspect regards images as a means to convey certain meanings or desired representations, including of self. This was the case in a recent study of promotional materials utilised by UK medical schools as part of their recruitment strategies, and how these may influence prospective students' choices (Macarthur et al. 2019). The researchers discussed how the construction of certain representations of each medical school, its degree programmes and the medical profession in general helped to produce unintentional barriers to access. Such barriers, the authors held, were most perceivable with regards to community medical practice, with hospital-based placements strongly favoured, and concerning ethnicity with a lack of diversity promoted within examined materials.

Images as communicators of certain representations has also been discussed in domestic contexts. Here, scholars have pointed to how the creation, selection and display of family photographs in the home facilitate the construction of a seemingly coherent, idealised family unit absent of tension (Gardner, 1990; Reme, 1993; Rose, 2003; also Baele et al. 2019 on extremist groups' 'reification' of identity and othering). This in turn raises a particularly interesting insight from the literature; namely that surrounding a presence-absence dynamic.

To elaborate, numerous authors have highlighted how images not only convey what is directly pictured, but by extension what is not shown; the absence (Benjamin, 1969[1935]; Collier, 1957; Rebich-Hespanha and Rice, 2016; Rose, 2003; also Gariglio, 2016, on visuality and the (in)visibility of referents). Such images are, therefore, only partial representations of reality even though they can appear to be direct, neutral reflections of it (Collier, 1957; Gardner, 1990; O'Neill, 2019; also Latour, 2002).

Indeed, they can be seen as a record or evidence of past events, experiences and of how the people or places captured used to be (Becker Ohrn, 1975; Grady, 2001; Rose, 2003; Sassatelli, 2011; Szarkowski, 1978). Yet, at the same time they are imbued with a variety of different, changeable, perhaps contradictory meanings (Baele et al. 2019; Dempsey and Tucker, 1991; Gariglio, 2016; Grady, 2001; O'Neill and Smith, 2014; Rose, 2003). This polysemic nature can be commonly related to the notion that there are three key and interlinking stages in the

production, signification and interpretation of images which influence the meanings ascribed to them.

Namely, these cover the initial production of the image (incorporating the photographer's view and intention; referred to as a non-neutral 'photographic seeing' by Kirova and Emme, 2006; or a 'mirror' by Szarkowski, 1978), the image itself and, finally with regards to those who view it, audiencing (Rose, 2001; variously, Aitken and Wingate, 1993; Baele at al. 2019; Gardner, 1990).[8] How images are produced or displayed has also been noted to additionally influence the viewing of them (regarding domestic contexts, see Reme, 1993; Rose, 2001; on the research context, Collier, 1957; Grady, 2001).

It was these main elements that Rose (2001) formally specified as the 'sites' of meaning-making regarding imagery. Within this framework, Rose understood each site to share, to greater or lesser extents, the same 'modalities' (2001:16) concerning: the technological, as mediums for production and dissemination; the compositional, centring on colours, lighting, content and the feelings evoked, alongside the spatial organisation involved in and behind the image (on colours and their signification, Doyle, 2007; Manzo, 2010a; Walsh, 2015); and, finally, the social, pertaining to the relations and institutions that work upon the image.

Rose also mentioned how images are influenced by different cultures and cultural practices (read different ways of seeing, or modes of making and displaying images; also Goffman, 1974); these forming yet further areas for consideration with regards to images and their meanings. Images can thereby be further understood as cultural artefacts that portray, speak to and are received by or through certain normative values, perspectives, realities and (social) contexts which exist around their subject matter (Crang and Cook, 1995; O'Neill, 2019).

Durkheim also spoke along these lines when discussing how symbols of representation change according to the society within which they are found (Durkheim, 2004[1985]). This reflects a societal or cultural difference in the use of symbols and their associated meanings as part of a particular understanding of reality. This theme was also present in Durkheim's study of religion which, when discussing totemism, noted how different clans adopted different symbols and visual emblems representative of elements from the natural world. These symbols were in turn taken to inform which behaviours were permissible and which were not (Durkheim, 1964[1915]). The point here therefore related to Durkheim's broader claim that such emblems,

as representations, hold a sanctity and come to be regarded as sacred objects in a more religious sense (objects holding cultural significance was noted also by Goffman, 1974).

Through respect for the sacred – conceptualised as an emotion – and the related moral authority and pressures to conform, certain behaviours are observed and others dissuaded against as forbidden or profane (Durkheim, 1964[1915]). Following these studies, imagery as emotionally evocative representations or symbols of something else would indeed appear sociologically interesting. This includes how they can subsequently influence the actions undertaken by individuals and societies by serving as normative cultural and collective artefacts.

Continuing in relation to Rose's (2001) sites of meaning making, image production can be re-emphasised as not being a neutral process, but rather one involving selectivity around what is depicted and how (amongst others, Prosser and Schwartz, 1998; Walsh, 2015). Indeed, linking to the idea that images are representations of a partial reality, yet can appear as a truer, direct reflection (the 'indexicality' of imagery; see O'Neill, 2019; O'Neill and Smith, 2014; also Grady, 2001), Benjamin (1969[1935]) elaborated upon this with specific reference to photography.

The argument put forward was that the camera (and the following photo editing process) serves as a mediator between the audience and the depicted entities (Grady, 2001). As such, not only does the camera's eye and positionality to the photographic object determine that of the viewer who assumes the same pre-determined and thus non-neutral vantagepoint, but the experience of the depicted reality is different to that gained through seeing a visual representation of it. It is from this that Benjamin (1969[1935]) claimed that the photograph relays its focus in a manner devoid of its 'aura' and 'authenticity'; these experienceable only directly without camera mediation (also Sachs, 1999).

Goffman (1974) specified further that these camera positionings and later image editing – the extent and form of which remaining unknown to viewers – can render framing experiences vulnerable. Specifically, through providing partial information or presenting carefully curated imagery as something more objective, an audience could consequently engage in misframing (see Chapter Four).

Additionally, accompanying material such as captions and titles can act as 'signposts' intended to provide direction to the audience regarding the understandings, interpretations and ways of

viewing the imagery (Benjamin, 1969[1935]:8; also O'Neill, 2019). These are themselves not necessarily a neutral element but can also be chosen by image users with a desired end, perspective or argument in mind (Walsh, 2015). They may, however, present a seemingly different or conflictual message to that of the associated image (Rebich-Hespanha and Rice, 2016). With such possibilities to convey intended messages, it is feasible to conceive of the arguments made through visual mediums as potentially 'indirect, multiple, and open-ended' (Walsh, 2015:365).

This is supported by the audience stage in image meaning. Here, differing interpretations around any given image are possible, not only due to how the image was produced and consequently depicts the object of focus. It can also relate to audience demographics and predispositions which extend broadly to attitudes, experiences, values, political leanings, backgrounds and cultures (Krause and Busy, 2018; Nicholson-Cole, 2005; Rebich-Haspanha and Rice, 2016; Rose, 2001). Images can help shape opinions (Wang et al. 2018), yet the positionalities brought to any contemplation of or reaction to an image by viewers further link to the broader concept of motivated reasoning or, similarly, biased assimilation. The core idea these terms share is that individuals interpret and retain knowledge about the information they consume, including imagery, in line with pre-existing beliefs and values (see Leiserowitz et al. 2010; Wolf et al. 2010; also Krause and Bucy, 2018).

In other words, while what is depicted may seem objective (O'Neill, 2019), there is subjectivity, selectivity and some degree of abstraction involved. This subjectivity and value-laden nature of image meaning therefore lies also in audience consumption alongside production. Therefore, the impact of an image is not guaranteed given audience diversity and processes of biased assimilation which can influence the making and interpretation of meaning (also Hoffbauer and Ramos, 2014).

Moreover, images can hold an emotional salience for audiences to varying degrees of intensity (Grady, 2001; Hayes and O'Neill, 2021), both positively or negatively. In this, emotional reception is arguably able to influence the overall interpretation made of the image, what it depicts and how (Krause and Bucy, 2018; Nicholson-Cole, 2005). Indeed, images can subsequently inform conversations about the themes included whilst attempting to relay particular messages or frames around these themes. In this sense, Nicholson-Cole (2005) further noted that images can raise awareness of certain discussion topics for audiences (but

without necessarily influence how they are talked about; recalling the idea of motivated reasoning).

Through issue framing and associated emotive impact, images hold the potential to improve people's memory recall of depicted issues (Nicholson-Cole, 2005; O'Neill and Smith, 2014). Certainly, imagery's communicative power, insofar as conveying emotion is concerned, has been argued to be greater than that of text alone with the further ability to convey messages and resonate with audiences across geographic and linguistic borders or barriers (O'Neill, 2019; O'Neill and Smith, 2014; on crossing borders, Doerr, 2017).

Speaking of images more methodologically, Gariglio (2016) similarly highlighted the importance of two of these sites through photo-elicitation interviews conducted with prison staff about their use of violence. The author suggested that the image itself in conjunction with any subjective interpretations and connotations inferred by viewers are crucial to visual studies. This was placed in terms of visuality which comprises the various aspects which form an image, extending from intended meanings to the purposeful usage of lighting which can, for instance, suggest connotations or highlight certain image elements over others.

Relatedly, invisibility was proposed by Gariglio as being of interest and importance to methodological considerations with image-based research. Specifically, the visibility and means of relaying or emphasising objects included in an image can by extension stress the parts that are excluded (also Geunther et al. 2023 on framing; Chapter Four). With the author's research with prison officers, this invisibility of certain referents was picked up on by study participants and consequently informed how they judged the images and directed the conversation around them within the research encounter.

Indeed, it is not only what is directly depicted within images that is important to consider, but this idea of absence, too. In other words, the non-inclusion of various elements can also be key to the production and possible readings of visual materials. It is thereby feasible to consider 'missing' elements in the scenes offered to audiences not only as a selective relaying of more desired realities, but potentially as a conscious decision by image producers to leave the image open to a wider range of interpretations and, therefore, to appeal to a broader audience.

Latour (2002) highlighted a similar point while discussing 'iconoclash' in which there can be ambiguity around what an image depicts – as to whether it is 'destructive or constructive' (Latour, 2002:16) – and is through this feature rendered interpretable in numerous ways.

Illustratively, Latour's example was of an image in which, under one view, the Shroud of Turin is being stolen by axe-wielding individuals attempting to break into its protective glass case. Under another reading, those wielding these weapons are firefighters rescuing the Shroud from damage or loss (Latour, 2002). Put differently, meaning can be found specifically in the ambiguity of an image.

In sum, imagery and ways of viewing are never neutral but offer an interpretation and manner through which to see the world. There is, consequently, a complexity to imagery which can be unpacked and explored through social science research; as is proposed by the present study. These are not the only aspects of images raised within the existing literature, however. Consideration has additionally been given to how, through producing and reinforcing particular narratives, images can feed into overarching meta-frames (read 'master frames'; see Chapter Four). These frames are understood as key organising ideas (and ideals) around which worldviews are promoted (Baele et al. 2019).

It is this wider framing ability of visual narratives that has been pursued more recently by Baele and colleagues (2019) who studied the imagery published by Islamic State, a violent extremist group. They observed over 2,000 images from every edition of two English language magazines produced by Islamic State, understanding that images can promote and strengthen specific perspectives including through provoking emotional responses. In this vein, the authors offered a concept of visual style. Here, a number of facets to the imagery were covered, from icon usage (symbolic valence) and shock factor (the level of graphic violence), to image linkages with the specific narrative being promoted and, finally, the people being depicted (Baele et al. 2019).

This latter feature was further discussed in terms of in- and out-group identification which can reflect stereotypes (Baele et al. 2019). Moreover, the distinction of an 'us' in contrast to 'them' was held by the authors to relate to the depiction of the in-group as the solution to the undesirable issues and crises posed by the out-group. The latter was considered a 'push' factor influencing group membership and the former an interlinked identity-based narrative construction serving as a 'pull' factor in recruitment (Baele et al. 2019). With frequent repetition over time, these narratives can become increasingly ingrained and feed into a seemingly coherent and positive group identity, purpose and, by extension, juxtaposition against perceived opponents.

This was a key point raised by the study; that images taken together and with sustained usage over time present the potential to hold a 'narrative power' (Baele et al. 2019:3; also Latour, 2002; O'Neill, 2019). Through a particular and narrow set of visual elements and narrative devices, this power intends to promote one overarching perspective (a meta-framing) over others. Very finally, these identity narratives promoted by imagery were discussed as possibly inspiring certain behaviours or actions. Nevertheless, it was also noted how the use of images and what types are employed may change over time as group strategies, foci and resource-related situations also change (Baele et al. 2019).

In developing upon the above points, images such as photographs are not only interesting since they are actively constructed, but also how they are purposively used for a particular end. It is in this sense that Rose (2003) further added to her conceptualisation of the image, understanding them not solely as something that is read like a text, but instead as something more practical; as an object. Under this view, they do not only convey narrative meaning or definitions similarly to text, but are suggested to be of great interest insofar as how they can be deployed to tell stories, produce and reinforce frames, or to galvanise an audience (Rose, 2003). For the current project, visual representations along these last lines are of keen interest with regards to movement campaigns and meta-frames surrounding Nature and the climate; as elaborated upon in later chapters.

2.4 Chapter Conclusion: Nature and the Potentials of Imagery

This chapter, by way of introducing more explicitly some of the key foci for the project at hand, has covered different ideas and values that surround Nature and the climate. Within this, it has been noted how classic Western Enlightenment notions of 'landscape' exist, by which the natural world is observed and understood through cognition and reason, including for its picturesque beauty; the viewer always remaining detached from the scenery they observe. Yet, this is not the only way of understanding Nature as it has been conceptualised as a more active entity which is deeply interwoven into people's everyday lives and experiences.

Through this latter notion, it challenges human-Nature dualisms in which people are removed from the physical environments that surround them; engaging only the visual sense to mentally appreciate landscape beauty and spectacle. Alternatively, Nature can feed into individual or collective identities and practices. These factors and the different overarching ways of seeing

and engaging with Nature and climate change are able to be relayed through visual mediums, extending from landscape art to photography, film and scientific graphs, amongst others.

Therefore, the question could be asked regarding what the sociological relevance and interest of imagery is. In response, images in their many diverse forms and forums are not neutral in how or why they are produced, they remain open to different interpretations by different audiences, plus are involved in processes of re-framing and meta-frame construction. They can challenge discourses, reflect cultural norms and ideas (including around Nature), bear witness to events taking place and raise awareness of them and their severity (also Hoffbauer and Ramos, 2014). They can evoke strong emotional reactions, provide material for the imagination, inspire or deter certain behaviours, inform identities and contribute to in-group and out-group distinctions and tensions, including across borders while overcoming language barriers.

Last but not least, in all of these ways they can be purposively used through social movement campaign efforts. It is for the above reasons that imagery, like Nature and the climate in and of themselves, appears to be a complex entity; and should therefore be of great interest for sociological studies. However, as the following chapter discusses, research that has been conducted with the image as a central focus highlight a number of gaps within the literature to date; gaps the present project intends to address.

As a result, the next chapter will take up these themes to examine literature focused upon Nature, climate change and social movement-specific imagery. Doing so will better situate the current research within the broader scholarship and relevant debates while more clearly framing its own contribution to knowledge. This will now become the main focus.

Chapter Three: Imagery, Nature and Social Movement Studies

3.1 Introduction

Polysemic, evocative, informational and complex; the image can be seen through the proceeding chapter to be an important object for sociological study. Indeed, it opens possibilities to explore how Nature, as a specific focus of this research, is constructed by image producers, with what intentions and to what reception by different audiences. Moreover, as an object the image has been conceptualised as reflecting cultural frames, perhaps like that of 'landscape' in Western contexts. This background to this study thereby well-introduced some of the core ideas underpinning the direction of this research, including the central topic and guiding questions.

Up to this point, the literature considered helped to state the ways in which imagery is an important medium of communication and expression that can inform identities and their enaction, as well as issue representations, for instance. To further focus this discussion and build upon it, an account of scholarship concerned directly with social movement, climate change and Nature themes is presented; areas that have to date been subject to a number of literature reviews (for instance, Fownes et al. 2018; O'Neill and Smith, 2014; Pearce et al. 2019; Schäfer, 2012; Wang et al. 2018).

After first detailing the key approaches, findings and suggestions from this multidisciplinary body of research, the idea will be forwarded that there is scope to expand the literature through greater consideration of the Nature imagery produced by movement groups. This includes its dissemination through online platforms. Indeed, this is a gap a number of scholars have highlighted; and it is one addressed through the main orientation of this study. Accordingly, studies focused centrally upon Nature imagery will first be considered, before linking into climate change and then social movement research that similarly attempts to engage with the image. The first of these themes is now taken up.

3.2 Visually Representing 'Nature'

To begin, studies of Nature in imagery have focused upon understanding people's visual preferences towards different types of landscape. Drawing on insights from the Netherlands, two such papers exemplify this line of investigation. In the first, public preferences for different natural landscapes were examined through a non-representative postal survey distributed randomly by postcode (Van den Berg and Koole, 2006). Doing so returned a final sample size of 500 individuals from six case locations in the Netherlands, with a response rate of 38 percent. These areas were selected according to their different environments and Nature restoration projects within a broader context of national government plans to convert farmland into more 'natural' areas. The aim of this policy push was to restore Nature either damaged or at risk from a range of human activities, including agriculture and other industries. The survey included colour photographs of different landscapes, both unmanaged and those actively maintained by people, with statistical approaches such as linear regression adopted for the ensuing analyses (Van den Berg and Koole, 2006).

From this, the overall preference expressed by respondents was found to be for wilder areas subject to less human management (Van den Berg and Koole, 2006). That said, demographic characteristics were deemed to influence preferences with older individuals and farmers, alongside those with lower income and education levels, indicating greater preference for more managed landscapes. However, while the preference for managed vis-à-vis relatively untouched land seemed to differ along these lines, this did not extend to judgements about their beauty with wild and managed landscapes regarded equally in this light (Van den Berg and Koole, 2006).

Respondent preferences, moreover, were found to be consistent with evaluations made when directly seeing such scenes without the mediation of a camera (Van den Berg and Koole, 2006). In this way, reactions to signs representing an 'object' such as Nature provide insightful means to explore Nature perspectives in the absence of direct bodily experience of the signified during data collection (also Osgood, 1979). Images as signs, therefore, can be a relevant and appropriate material through which to understand people's judgements and feelings around that which is captured by an image.

Expanding on these ideas, Buijs et al. (2009) elaborated upon the effect of immigrant status for landscape preference; linking the discussion to cultural differences. Specifically, these scholars sought to uncover whether the natural landscape preferences of immigrants to the Netherlands

from Morocco and Turkey differed much from native Dutch. Here, the authors relevantly noted that while the concept of Nature as 'landscape' – as beautiful scenery to protect and observe – emerged in Europe during the Enlightenment, such a notion is not found within the traditional Islamic societies from which the sampled immigrant groups originated (Buijs et al. 2009). The idea of cultural differences in visual representations, narratives and interpretations was further noted by Goffman (1974). This extended to the values and characters assignable to physical objects and what they signify within particular cultural frames. Cultural differences, therefore, remain important to consider when approaching visual materials.

Buijs et al. (2009) determined that immigrant status was a good predictor of landscape preferences along these lines. Dutch natives demonstrated noteworthy preferences for wilderness imagery while, on the other hand, immigrant groups exhibited an overall preference for 'functional' images of Nature under greater human management. Contrary to the previous study above, demographics such as age, gender, education levels and similar were suggested not to be good predictors of Nature preferences. Instead, they exerted only minimal influence.

These findings were similarly gained through a survey instrument, alternatively conducted face-to-face, in one area of three different Dutch cities. This resulted in a sample size of 618, which was roughly split equally along native and immigrant lines, and a 47 percent positive response rate. Once more, the survey incorporated ten images of natural areas commonly found within the Netherlands, presented as full-colour photographs depicting dunes, polders, agricultural land and forestry, amongst others (Buijs et al. 2009). The analysis, again as with Van den Berg and Koole (2006), followed a quantitative path.

What was also common between the two projects was a broader idea that the settings in which individuals have lived and gained direct experience of informs their overall preferences. To be specific, the thought here is that rural inhabitants less prefer wild or otherwise non-intensively managed landscapes compared to urban dwellers. The reasoning often proceeds that those with rural links are more accustomed to managed land and hold more direct interaction with such settings, informing anthropocentric rather than eco-centric landscape values (Buijs et al. 2009; Van den Berg and Koole, 2006). The former value orientation tends towards heavily managed Nature, while the latter leans more in the direction of Nature left to develop alone (or, at least, with minimal human involvement).

These studies reinforced previous points regarding how the interpretation and valuing of images depends just as much upon the 'site' of the audience insofar as backgrounds, cultures

and, perhaps, other demographic features are concerned as it does the content of the image itself and the process that produced it. Certainly, Buijs et al. (2009) ended by suggesting the benefits to understanding that become possible by examining culture differences. Culture here was related to the underlying values and beliefs that inform relationships with and conceptions of Nature. Consequently, they advocated examining social representations as 'socially elaborated systems of values, ideas and practices that define an object for a social group' (Buijs et al. 2009:121), perceiving these to form an important orientation for future studies.

The idea that preferences regarding Nature and its management differs little between direct or mediated experiences of it, including through photography (Van den Berg and Koole, 2006), holds in other respects as well. To elaborate, access to Nature, considered comprehensively to incorporate natural views from workplaces, for instance, has been argued to pose benefits for physical and mental health which extends to lower stress and greater (job) satisfaction (Nadkarni et al. 2017; also SEI and CEEW, 2022). Acknowledging this, Nadkarni et al. (2017) examined the potential health benefits of viewing Nature where access to it is unavailable. Specifically, their study focused on a maximum-security prison setting in the US with inmates who lacked Nature access.

Conceptually, the authors explained that the potential health benefits of experiencing Nature is divisible into direct and indirect experience. The latter concerns experiences more managed environments such as farms or through pets, and the former as contact with Nature unaffected by human intervention (Nadkarni et al. 2017). There was a third, less desirable aspect to this, namely of a 'vicarious' experience where no physical experience of Nature is gained except through the mediation of film, television or printed media. Potentially occurring through urbanisation or busy life and work schedules, a continual lack of engagement with Nature was referred to as a potential 'extinction of experience' which could produce biophobia; a fear and discomfort when faced with Nature (Nadkarni et al. 2017:395). It could thus result in a deeper, overarching dislike for Nature as well (Nadkarni et al. 2017).

Taking a selection of Nature-centred videos for inmates to watch and listen to during their daily exercise period alone, the authors hoped to better understand the impact this albeit more vicarious access to Nature could hold for them when they had already experienced the extinction of experience in prison. Aesthetically, through surveys and six interviews with prisoners (and more with prison staff) as part of a one-year project, inmates expressed their preferences towards videos depicting a range of natural environments, colours and animals

without a human presence. Preference was expressed too for videos with sounds associated with the scenes rather than artificial music overlaid. With regards to the videos' effects, those who watched them felt calmer and less aggressive, including for a time after the conclusion of the film. Moreover, a reduction in violent behaviour reports was also observed for participating inmates (Nadkarni et al. 2017).

In short, Nature imagery held positive emotional and behavioural effects even as a vicarious experience, leading the authors to recommend greater access to Nature in a variety of settings to encourage more desirable behaviours (Nadkarni et al. 2017). To link this explicitly to the current study, Nadkarni and colleagues' (2017) work helped highlight how Nature images can produce positive and lasting emotional and behavioural effects. If images hold such ability, then efforts to frame Nature in such a way so as to result in or enforce environmentally beneficial behavioural shifts as part of a broader meta-frame construction may be feasible. Indeed, Goffman (1974) discussed how presenting narratives (as a 'replaying' of events through stories and anecdotes) provides audiences with not only an account of an event, but also an entity or context in which they can situate themselves, thereby 'vicariously reexperiencing what took place' through the power of narratives, frames and imagination (Goffman, 1974:504).

The idea that Nature imagery holds the ability to influence feelings and behaviours for viewers can also be considered regarding advertisements. This formed the focus for Houghton (2019) who examined cigarette vending machine images in Ireland. The particular use of countryside and coastal scenes on the machines was understood by the author to create a frame associating cigarettes with good health, outdoor activities and enjoyment linked to experiencing the depicted landscapes (similarly also oil industry advertisements; Widener, 2022). Moreover, it was raised how from production to disposal cigarettes are damaging for natural areas and so there was an arguable greenwashing by those behind the advert designs. This was through the positive associations the usage of Nature imagery sought to create. Depictions of Nature as attractive landscapes were further deemed to normalise cigarettes as a product both in terms of lifestyle (healthy, active, outdoors) and environment (picturesque, idealised landscape) despite their effects to the contrary (Houghton, 2019).

Informative yet still was work from Porter (2018) in the area of literary history. Taking plant illustrations appearing in an 18th Century botanic-inspired poem, an attempt was made to see these images as more than aesthetically pleasing accompaniments to prose. The author was

keen to suggest that the printed plant illustrations contained in verse represented not only the taxonomical features as they exist, but sought also to convey a more philosophical ('epistemic') claim around the active interactions and animation of plant life beyond their physical characteristics or outwardly visible beauty. This related further to a number of aesthetic conventions in the depiction of botanical specimens through which life and motion was captured via artistic expression. However, in emphasising motion and vitality, the plants' representation may themselves become an idealised version a reality (Porter, 2018).

In this sense, the production of images and what those involved seek to highlight or, indeed, obfuscate, is important to the ways in which reality is selectively relayed for an audience. In sum, therefore, the above studies with different conceptualisations and forms of Nature imagery emphasise, directly or indirectly, the importance of the 'sites' of meaning mentioned by the preceding chapter. How Nature is depicted and why, plus their reception by and impact upon viewers as unique individuals, are interwoven factors. They inform the truth claims of images and their producers, as well as the extent to which their efforts to promote new understandings or behaviours through Nature visuals could be considered successful.

The literature shows this to be possible, be it in advertising, prose or general life, based upon audiences' pre-existing experiences, beliefs and values. Such insights are thus relevant to the project at hand, as will continue to become clearer. That said, it is not just the visual representations of Nature that have been the focus for scholars, but a number of studies have complementarily addressed the overlapping and broader issue of climate change. Resultantly, these projects are to be considered.

3.3 Imagining Climate Change

Firstly, Milkoreit (2017) drew attention to their notion of socio-climatic or socio-environmental imaginaries. It was argued that the ways in which a 'grand societal challenge' (Milkoreit, 2017:1) such as climate change is framed, positively or negatively, holds the ability to influence societal transformations. For the author, there was an understudied yet informative or emotive role for art and popular culture, including climate fiction novels (more generally, Wang et al. 2018); two of which being examined. It is in their ability to provide people with ideas and other materials through which imagination can be stimulated that this influence was held to exist. Noted further here was a key role for climate science,[9] aiding in understandings of Nature while providing future projections. These materials and imagination processes could, for instance,

concern (un)desirable futures and the pathways to them coupled with reflection upon present structures and behaviours.

Put differently, such materials were held to facilitate the envisioning of strategies concerning how to achieve or avoid potential future events, motivating action around these scenarios which can be framed in utopian and dystopian manners. It is in this sense that Milkoreit (2017) defined socio-climatic imaginaries as a shared phenomenon focused largely on the means to reach or avoid future events. They were additionally conceptualised as involving acknowledgement of the complex interweaving between natural and social systems in which actions in the social realm impact upon the natural and can create a feedback loop, affecting humans in turn. Nature was, therefore, not passive in this conceptualisation but deeply interconnected and complex (Milkoreit, 2017). The framing of Nature then becomes important under these ideas for understandings of climate change, its effects and the possible futures that people have in mind and work towards addressing.

While not extending to Milkoreit's (2017) climate imaginaries conceptualisation, a number of studies do nonetheless examine climate change imagery. One was that of O'Neill et al. (2015) which examined framings from mainstream (television and print) and social media (Twitter). The authors focused upon UK and US-based coverage surrounding the IPCC's Fifth Assessment Report and found that coverage was higher in the UK compared to the US, and that much of the engagement with the reports focused predominantly upon one of the IPCC's working groups.

In general, media was taken to have the potential not to directly influence what people think, but rather what they think about. It was also noted, however, that studies of the media often focus heavily upon text as a communicative medium to the relative exclusion of other forms such as imagery (O'Neill et al. 2015; Rebich-Hespanha and Rice, 2016; Wang et al. 2018). Moreover, the authors observed that attention has predominantly been drawn towards print newspapers as the chief data source in the literature, neglecting online variants which for many people are main sources of information consumption, including among younger generations (O'Neill et al. 2015). This extended to a perceived lack of consideration of Twitter – a popular social media platform – by some in this subject area (cf. Chapter Six; Pearce et al. 2019).

Focusing on framing, ten frames formed the schema inductively-devised by the scholars based on related research and elite discourse (O'Neill et al. 2015). Of these, the risk to health theme (related to pollution, malnutrition or similar) rarely occurred, while political and ideological

struggle (concerning conflict over climate strategies and approaches) was dominant in print media. The settled science frame (namely that the science is clear and immediate action required) appeared most frequently on Twitter.

O'Neill et al. (2015) further found that disaster framing was commonly used, conveying progressively negative climate impacts and a lack of preparation to mitigate against them. However, in contrast to Milkoreit's (2017) suggestions, such 'dystopic' representations of climate change were considered more discouraging regarding people's own abilities to address these challenges. Indeed, others such as Rebich-Hespanha and Rice (2016) have also suggested that dystopic futures may cause defeatism among audiences given the strongly negative imaginary, but that depictions of the future in general, be them dystopic or otherwise, may lack salience since they do not reflect a present, and thus known, reality (Box 3.1). This form of threat-laden and dystopic imagery has therefore been suggested as more disengaging and disempowering as a result of negative framing, and perhaps not effective for communicating environmental and climate challenges by extension.

Alterations in climate framings used by the UK and US news media over time has also been studied (O'Neill, 2019). Frames were again understood as ways in which certain aspects of a perspective are emphasised in order to communicate beliefs and issue standpoints. The media, while not passively consumed by audiences, has meanwhile been characterised as still being able to use different framings to influence the direction discussions can take, as mentioned previously (O'Neill, 2019; also Daun et al. 2017; O'Neill and Smith, 2014).

The starting observation from which some of this work builds was how the predominant orientation of social science literature, including that concerned with climate change, leans heavily towards text-based analyses. What is missing, therefore, is a consideration of imagery as a communicative medium which, O'Neill (2019) advocated, can hold greater emotional salience, facilitate issue engagement, convey relevant meanings across linguistic barriers and improve memory recall for, in this context, news items (with broader scope, Nicholson-Cole, 2005; O'Neill and Smith, 2014; further, Doerr, 2017; Rebich-Hespanha and Rice, 2016).

Box 3.1: Ruins and rubble in Dystopia

Comment: Presented is a photograph approximating the dystopic future image presented in Rebich-Hespanha and Rice (2016:4847) which similarly showed damaged and abandoned multistorey buildings with a mountain backdrop. Given this similarity, dystopic futures could be an extension upon existing, known issues such as earthquakes (pictured) or flood damage. They would thereby retain a relevance to reality and already lived experiences, and thus not be completely abstract for all viewers (cf. Rebich-Hespanha and Rice, 2016).

Nonetheless, according to the literature (amongst others, O'Neill et al. 2015) such imagery may continue to be dissuading on the basis of its negative frames. Even where dystopic futures do resemble known circumstances like earthquakes, this could still be disempowering since comparable disasters have already occurred in the past and present, and were therefore already unpreventable (Doyle, 2007). By extension, it may leave viewers thinking about how they could be stopped or avoided in the future; perhaps with doubts based on prior happenings.

It is interesting also to think about the above image in terms of human stories which could be more engaging and relatable for audiences (Chapman et al. 2016; see below). Specifically, and while no human subjects are directly captured by this photograph, the ghost of human activity and life remains among the remnants of this destroyed infrastructure. Therefore, perhaps human stories need not be told through the direct depiction of human bodies, but could be conveyed instead by the strength of their absence (Chapter Two; Gariglio, 2016).

Source: "Sichuan Province after 2008 earthquake, China", Wu Zhiyi/World Bank (CC BY-NC-ND 2.0).

Examining UK and US newspapers between 2001 and 2009, with a final sample of 1,278 climate-focused articles with images, the author suggested a shift in visual framings of climate change. Discussing this time period as one where climate awareness and scepticism notably grew, two consistently predominant frames existed. One concerned contestation and tensions in climate debates, while the other which was dominant at an earlier stage centred around distancing viewers from experiences and dangers linked to climate change, both physically and psychologically (O'Neill, 2019; 'psychological distance' covered by Duan et al. 2017:346; see below).

Within media framings, the use of iconic images such as polar bears were another notable presence (Box 3.2). These images can be both quickly understood by an audience as a climate synecdoche – or, put differently, as a 'simple visual shorthand' denoting the broader issue (Wang et al. 2018:9) once a sign comes to represent something 'other than itself' (Osgood, 1979:57) – yet easily parodied or derided as cliché by opponents of the commonly associated meaning (Chapman et al. 2016; Pearce et al. 2020; on parody in protest, Mattoni and Doerr, 2007, next section). In the case of the polar bear, this meaning revolves around linkages between vulnerability, melting sea ice and global warming. Other iconic climate images, to note, include melting glaciers (without fauna), industry-originating pollution ('smokestacks'), scientific diagrams of rising temperatures, plus dried and cracked land as a signifier of drought (Manzo, 2010b; Rebich-Hespanha and Rice, 2016) (Box 3.3).

That said, the thematic range of these climate icons could be deemed limited compared to the scale of the challenges posed, potentially constraining the debate to a select few climate impacts as a consequence (Wang et al. 2018). Moreover, their overuse in climate communication may result in reduced salience for audiences whilst remaining tied to pre-existing and therefore not novel nor creative ways of thinking about related challenges (Rebich-Hespanha and Rice, 2016).

There have been similar studies that look at newspapers' visual representations of climate change and/or environmental issues, although mainstream media is not the only actor nor data source using climate imagery (O'Neill and Smith, 2014). Among these, it has been discussed that the more distanced climate change appears, the more abstract it is constructed as an issue (Duan et al. 2017). Regarding climate change coverage in the US, this was placed in terms of temporal and spatial distance through which climate change is construed as affecting other geographic places without immediate nearby consequences (Duan et al. 2017; Nicholson-Cole,

2005). Indeed, others have commented on how the lack of direct personal experience in everyday life hinders individuals' understandings of environmental or related events and issues (Hoffbauer and Ramos, 2014).

In Duan et al.'s (2017) study, coding of 635 images collected through a content analysis of large US-based news media's climate-related articles between 2012 and 2015 extended not only to what was depicted, but also to the formatting (for instance, whether the image was a photograph and in colour or black and white). The intention through this coding schema was to evaluate the overall 'abstractness' of climate change representations (see Duan et al. 2017 for elaboration). Subsequently, the authors developed their core claims concerning the distancing they observed through the use of seemingly more abstract visual representations of climate change.

More broadly, Jang and Hart (2015) built from these themes to examine Western media framings' relation to and integration within public conversations of the climate through Twitter. Employing data from the US, UK, Canada and Australia which comprised 5.7 million Twitter posts identified based on a series of keywords, the authors discerned how climate discussions were more likely to reflect sceptical viewpoints within the US and, specifically, in 'red' (i.e. politically Republican) states compared to elsewhere. In such contexts it was noted how 'global warming' was the main term adopted rather than 'climate change'. This could be on the grounds that global warming is deemed more debatable when experiencing periods of cold temperatures, casting doubt on the notion that any 'warming' is taking place (see Fownes et al. 2018, and others).

Australia, with high dependency on fossil fuel industries in the national economy, was also found to have more framings related to contestation around anthropogenic climate change. With this, the authors suggested that the climate debate, particularly in the US, involves an online polarisation following political lines (regarding red states and associated scepticism, for example) with partisan or stance-related networks on social media placed in terms of 'homophily' (cf., perhaps, Jones et al. 2022 on the enduring salience of environmental icons irrespective of political leanings). This mechanism relates to how individuals connect to others who are similar to themselves in some regard with greater frequency, including shared worldviews and issue perspectives (Jang and Hart, 2015; also Williams et al. 2015 concerning online, homophily-oriented echo chambers; more broadly, Bellotti, 2015; Crossley, 2011; Yardi and boyd, 2010).

Box 3.2: A polar bear on the ice

Comment: Unlike with some polar bear images, the one presented here does not necessarily make it immediately clear that ice coverage is lower than usual without a wider angle. It does nonetheless appear thin in the above image and the photograph's title directly mentions a reduction in sea ice which helps to frame the reading of the image in this way. Moreover, the polar bear seems relatively healthy and as not being in danger, and so a lack of vulnerability could be perceived for this animal. Indeed, given their size, power and labelling as 'charismatic megafauna', polar bears like this one can look strong; not the opposite as the wider environmental case may be. With this directly visible vulnerability lacking, therefore, it might be that this image also holds a lesser ability to evoke a moral shock in the sense of Jasper and Poulsen (1995; below) through the absence of animal suffering as a central frame. Contributing to this is the manner in which the environment looks clean without pollution or other direct indicators of human-led degradation.

Equally, no risks to human society appear evident, and so the scene depicted and any associated issues seem removed from everyday life. As a result, it may be perceived as not being of particular relevance or importance to the viewer. This image could thereby have a distancing effect on the basis of this abstraction from an audience's lived experiences.

Moreover, in the absence of clear and direct threats to animal or human, readings of this image may give way to spectacle and aesthetic appeal similarly to the view adopted under a landscape framing of Nature. Attention might consequently be drawn away from possible concerns and towards the reflections in the clear water, the different shades of blue on display and/or the details of the polar bear's fur, for example.

Lastly, this animal is also well-used within climate communications in general so that, even if the polar bear and ice were more clearly depicted as being in danger, the effect may not be as strong as it would perhaps have been in the past (Chapman et al. 2016, and others; cf. Chapter Nine). Nonetheless, this type of image continues to signify climate change as a classic icon and so can still highlight this issue to image viewers, even if not in a particularly strong or emotive manner.

Source: "Polar Bears Across the Arctic Face Shorter Sea Ice Season", NASA Goddard Photo and Video (CC BY 2.0).

Box 3.3: Assorted climate icons: glaciers, smokestacks and drought

Comment: A glacier between the sea and a mountain is seen in the above image. Unlike with the polar bear icon (Box 3.2), glacier imagery like this is presented with an absence of fauna. This may remove a potentially emotive element from this image and reduce its possible influence on an audience, however, even though the underlying issue of polar bears and glacier images – global warming – is shared. This is suggestable since fauna such as polar bears could be more eye catching than ice and rocks alone. It may thus result in the absence of sympathetic responses to visions of animals in danger, since animals can be humanised and attributed more agency than ice landscapes. This can remain the case even in the presence of potentially more striking topological features which could themselves be a feature of largely visual interest to certain audiences. Put differently, in animal life there is a potentially greater narrative that could be told or imagined.

Moreover, although this type of image focus has been associated with climate change and the challenge of global warming more specifically, this is not necessarily clear to all viewers. To elaborate, while the image depicts what is under threat, unless global warming is perceived (or, for that matter, believed) by the viewer, it could be that the glacier seems fine and normal. It still exists and the photo could be seen evidence of this, in turn undermining the original message of environmental vulnerability and degradation.

This is perhaps where the composite 'before and after' photos discussed by Doyle (2007) in the context of Greenpeace's previous communication campaigns could be useful. This is because they directly show change over time, and can thus demonstrate the loss of ice coverage. In this sense, such composite imagery could better convey the theme of glacier vulnerability and its relation to global warming processes.

Nevertheless, there remains another potential limitation of ice imagery, and namely that such a scene has not been directly experienced and is non-local for many. This may again reduce the salience of the image, including any desired message of urgency to reduce emission contributions to support efforts against global warming and, by extension, ice melt. Indeed, viewers of images similar to the above may be unable to determine what the environment should look like and whether there is a problem in the first place.

Source: "Glaciers. Chile", Curt Carnemark/World Bank (CC BY-NC-ND 2.0).

Box 3.3: *Continued*

Comment: With the 'smokestacks' image, like the two above photographs show, the central focus is placed upon tall industrial chimneys and air pollution, including GHG emission release. In so doing, this image stands out as it is the only icon which depicts a cause of environmental degradation and climate change. Within this, it makes a clear link between industry as the actor involved, and pollution (the cause) which stems from their activities. A contrast is thereby made to the themes and messaging captured by the alternative 'solutions' imagery (Box 3.6).

Examining the smokestacks icon further, it presents a negative framing which could be seen to highlight a theme of dirt, pollution and destruction. The focus remains, however, strictly centred on industry as the problem, and so perhaps makes the contributions of individuals – including image viewers – to environmental and climate challenges less visible. This includes being the end users of the products or services for which these industrial sites are used. There is also no indication of what viewers can do when faced with these issues, and so no practical means by which they are informed and encouraged to take personal action is provided; and this point is applicable to the other icons considered here, too.

Moreover, the smokestacks icon draws attention uniquely to chimneys and air pollution, but it does not do likewise for other forms of industry which can similarly be destructive. These others could include agriculture or extractives industries which also have a significant impact upon environmental and social health.

Certainly, the image on the right features farming in the foreground, yet the negative focus remains solely upon the industrial complex and smokestacks at the back. In this way, it could appear as though the negative factory of the background is being contrasted against a comparably positive activity closer to the camera (and therefore to the viewer also). In this way, it appears as though the industry does not belong in this scene and has consequently encroached on a more natural, original and unproblematic land use. It therefore avoids land changes and negative agricultural practices linked to environmental degradation (including pesticide use) and climate contributions (for instance, meat production and consumption), and instead frames the foregrounded activities of the photograph as seemingly 'belonging' more in that scene when compared to the dark, smoky chimneys farther in the distance.

Source: (*left*) "Factory smokestacks. Estonia", Curt Carnemark/World Bank (CC BY-NC-ND 2.0); (*right*) "Iron and Steel giant ISKOR's Vanderbijl Park refinery. Farm land bordering the industrial area. 2007", John Hogg/World Bank (CC BY-NC-ND 2.0).

Box 3.3: *Continued*

Comment: The final icon to be considered in this box is that of dry, cracked land; a signifier of drought. Firstly, the image can serve as evidence of drought happening in the world, with this being linked to ongoing climate processes of which humans are the leading cause. As evidence, however, it necessarily relays an already-occurring disaster and thus one which was therefore unpreventable. This could be enough to demotivate an audience from taking meaningful actions or engage constructively with the challenge in some way (although again there is no guidance on what audience members could do in light of this issue, potentially reinforcing this viewer-challenge distance as a result). It may also be quite a shocking scene for some viewers, and be one which induces fear for the future as climatic changes continue. In this sense, the drought image could be suggested to present a strong threat-oriented framing which risks being too strong and, in turn, overwhelming for the viewer. It could thus create a cognitive distance to the issue being presented (Manzo, 2010b; Nicholson-Cole, 2005; Rebich-Hespanha and Rice, 2016).

There is also a possible point to be made about image context though, as it is not clear where the above-pictured drought is without the caption. Even with location information, the natural environment shown could be unknown for many viewers and thus seem as a distant and, by extension, not so immediately important issue to them. This could be the case with both the drought-hit landscape, and its pre-drought appearance for some. In this way, the image again may not encourage longer-term issue engagement or recognition through geographical distancing (Duan et al. 2017; Hoffbauer and Ramos, 2014).

Alternatively, this image's focus could be used as an indication of what might become a more frequent and pronounced occurrence in the future. This could be through framing existing droughts as a precursor of what may come should serious, concerted action not be taken on climate change now. This itself, however, could pose problems insofar as audience engagement is concerned. Specifically, it may continue to share an overly threat and dystopia-based frame which is demotivational for viewers. That said, it might also be argued that this dystopic scene presents a future preferably avoided; with this possible only if mitigative action against this future is actually taken (Milkoreit, 2017).

Source: "Parched soil by the White Nile. Khartoum, Sudan", Arne Hoel/World Bank (CC BY-NC-ND 2.0).

Moving beyond news media visual representations of climate change, the degree of convergence between numerous actors over single environmental events and how they are depicted has also been explored. Examining press releases from governmental, industrial, media and third sector bodies, Hoffbauer and Ramos (2014) centred attention on coverage of the 2010 Deepwater Horizon oil spill in the Gulf of Mexico. They considered 'simplicity' and 'visuality' as concepts through these actors' communication, devising a count-based scale for the number of event-relevant statements made across the 34 weeks studied. In so doing, simplicity in messaging and how well environmental harm was visually captured were found to be partially important for issue engagement (yet not statistically significant). It was the socio-economic consequences of environmental disasters – not the environment itself – that soon became the key element around which actors engaged and subsequently converged, however. The environment was thereby side-lined in the discourse around environmentally harmful events, including the significant BP oil spill in 2010 (Hoffbauer and Ramos, 2014).

Overall, the notion that climate change is abstract or distant and thereby difficult to communicate, with the visual side of this communication being important, is prevalent (for instance, Rebich-Hespanha and Rice, 2016). That said, its understudied nature appeared as a claim present within the literature. Investigating how different forms of climate imagery may influence or be received by an audience, Chapman et al. (2016) focused upon photographs as their central visual medium. The differential effects of climate imagery were here studied through focus groups and an experimental survey with demographically representative individuals in Germany and the UK (combined $n=3,046$). Climate imagery was introduced then discussed among participant groups and, for the latter, followed by closed questions concerning understandings, feelings and behavioural motivations caused by the viewed images (Chapman et al. 2016).

Adopting this approach, the authors relayed how depictions of people that were seen to be authentic and credible were preferred and, given possible emotional effects upon viewers, caused the most concern as well as motivation to alter current behaviours. This motivation was attributed to the relatable human stories and everyday experiences presented (Chapman et al. 2016; also Wang et al. 2018). Protest imagery, on the other hand, was received in a negative light by participants (Box 3.4). Equally, while positive, solution-based images were found to potentially demotivate research participants, although the reasons as to why this may be the case remain absent from the paper's discussion (Box 3.6, later in this chapter).

Box 3.4: A climate protest

Comment: The above is one example of a climate protest image, showing a demonstration and occupation taking place in London, UK. The event itself was held by Extinction Rebellion and, as can be seen, involved bold visuals including numerous colourful flags and, unmistakably, a pink boat with the demand 'Tell The Truth' printed along the side. The image is able to serve as evidence of what the group does, what its demands or claims are and how many people are already involved through sharing similar issue concerns. It seems to be a peaceful protest event with police facilitation based on the photograph. That said, the police officer's presence to the right of the frame could alternatively indicate for some that arrests are being made.

It is perhaps this kind of protest image which was reported to evoke negative reactions in Chapman et al.'s (2016) study considered above. This negativity may be the case for a number of reasons. For example, viewers may be uncomfortable with protest in general, or unsupportive of the disruption the action has upon other's daily routines such as commuting, or on the emergency services. There could also be the issue in which image viewers see those involved in this form of protest as 'professional' protesters, and this is a perspective which can undermine the salience and value of the message the protest event intends to convey as it, along with those involved, are cast in a negative light and dismissed.

Nevertheless, some environmental and climate change-related activists have intentionally tried to avoid a 'protester' label altogether on account of these negative associations (Steger & Drehobl, 2018). In this way, some have tried to present themselves by identifying with their day jobs as respectable teachers or scientists, whilst also using alternative labels such as 'protector' in their communications and framings. This was the case, for instance, with the UK anti-fracking movement (Garland et al. 2023).

Moreover, and as discussed below, imagery surrounding protests can focus less on the demonstration and more on the mundane everyday activities which occur at the side-lines (McGarry et al. 2019). In this way, those involved in protest can again attempt to counter negative discourses and perspectives around what 'protesters' are and what they do by presenting themselves as part of a relatable general public; much like the image viewer is. Such images may therefore have more 'success' in speaking to a wider audience.

Source: "Extinction Rebellion 2019 (Oxford Circus)", Mark Ramsey (CC BY 2.0).

Finally, iconic images such as polar bears can be viewed positively and as providing clear representations of climate consequences, whilst remaining open to cynicism stemming from perceptions that these images are cliché (Chapman et al. 2016). These findings were informed by author conceptualisations around the importance of specific sets of image features and their variants, including: what people are depicted and how; whether causes or consequences are shown; if they are relayed as local or more distant to viewers; if solutions are included; and, lastly, image aesthetics regarding photo quality and similar (Chapman et al. 2016). Similar was also found by León et al. (2022) in their study of climate image engagement online. They argued that engagement with imagery is increased where emotional authenticity through depictions of 'real' people are present alongside a storytelling, local connection to the viewer and, lastly, the impacts upon or actions of the people affected by an environmental event, for instance.

In their review, O'Neill and Smith (2014) noted how literature from varying disciplines have identified a degree of diversity in the forms that climate imagery takes. However, they suggested that images depicting people, and often politicians, predominate unlike infrequent depictions of mitigation or adaptation-related elements (Box 3.5). Moreover, a focus on climate impacts such as sea-level rise and ice melt were common but, the authors proposed, such imagery often focused upon the effects felt by non-human entities and so could place the viewer at a greater distance to the issues at hand. In these cases, image themes were not personal to the viewers (O'Neill and Smith, 2014). There was, in other words, an 'absence of human stories' in visual representations of climate change which may consequently render associated issues and impacts less relatable to an audience since authentic, everyday stories are absent (Wang et al. 2018:2).

Such concerns were reflected further by Manzo (2010b) while studying climate imagery in the UK. Again, it was noted that iconic imagery of a single vulnerable polar bear upon withering icesheets can both raise awareness yet simultaneously create issue-audience distance. Imagery similarly ascribing to discourses of fear or threat – common within climate imagery – was moreover considered as disempowering for audience members, rendering their possible individual actions as seemingly insignificant and so not worthwhile; as being not much more than a 'drop in the ocean' (Manzo, 2010b:203; also Rebich-Hespanha and Rice, 2016, who claim non-threatening imagery may consequently be more effective).

Box 3.5: The environment at the political level

Comment: Images from the opening of a 2019 meeting of the United Nations Environmental Programme (UNEP) in Kenya show speeches by politicians addressing the event and, therefore, speaking about environmental and climate challenges. The left image is of Kenyan President Uhuru Kenyatta, while the right shows French President Emmanuel Macron.

There are some potential issues with showing politicians, or alternatively celebrities, when trying to communicate and engage viewers with environmental or climate issues. Firstly, while they are part of a human story, their positions in life and in the public eye do not necessarily make images of them (nor the messages they convey) relatable to viewers. In this sense, images telling the stories of people who are not well-known might speak more to viewer experiences and emotions (Chapman et al. 2016; Wang et al. 2018). Moreover, there is an arguable risk that viewers may be put-off by images of politicians they do not like, even if they could agree broadly with what they say during UNEP events, or the UN's climate conference (COP) mentioned elsewhere in this chapter. Put differently, an unrelatability or disliking of political elites may reduce the salience or possibilities for positive effects concerning images of them. These images may nonetheless appeal to and engage audiences who do support the politician in question. In which case, an image of a preferred leader could successfully capture, inform and inspire an individual to engage to a greater extent with climate change, for instance.

Either way, there is a risk that messages on climate challenges and the actions which need to be taken, including by the wider public, might be undermined where they are disregarded on the basis of a viewer's attitudes towards the politician, their political affiliation, domestic policy platforms or similar. There is a possibility, by extension, that these challenges and related messaging become unproductively politicised and subsumed into general political debate; indeed, this has already been witnessed regarding climate change (Jang and Hart, 2015).

Lastly, images of politicians could give the impression that challenges are being handled at a high level, and so no need for personal concern nor involvement consequently exists. Politicians centrally within environmental and climate imagery may thereby not necessarily be effective if the aim of the visual communication is to encourage individual-level actions or attitude shifts.

Source: (*left*) "March 14, 2019. Nairobi Kenya. The 4th United Nations Environment Assembly UNEA 4", Natalia Mroz/UNEP (CC BY-NC-SA 2.0); (*right*) "Untitled", UNEP 2019 (CC BY-NC-SA 2.0).

It was in this sense that the author presented such imagery as paradoxical. Indeed, this related to the broader point being made that while any given climate image or frame may succeed in attaining one goal, it may nevertheless fall short or be counter to another (also Nicholson-Cole, 2005). These goals were suggested to comprise cognition (awareness), behaviour (action) and affect (emotional salience) (Manzo, 2010b). This was reflected also by Wang and colleagues (2018:14) who nevertheless suggested that continued use of imagery can produce 'a powerful visual narrative' which can inform the climate-related perspectives of a wider population.

Without disparaging the use and importance of photography as a communicative medium concerning climate change, Manzo (2010b) highlighted limitations to this form of imagery that should be acknowledged. Fundamentally, this centred on the extent to which it is able to capture climate complexities which expand often invisibly across temporal and spatial scales (also Doyle, 2007), and to do so while not being disengaging or demotivational for viewers. Consequently, positive and 'inspirational' imagery without fear or threat designed to encourage audiences was proposed as one means by which the observed paradox of climate images may be addressed (Manzo, 2010b).

Relatedly, Nicholson-Cole (2005) sought to investigate people's attitudes towards climate change and the mental imagery associated themes gave rise to through 30 semi-structured interviews in the UK. Within this study, many participants were found to deem climate change as something overly distant in time and space; thereby seeming of limited relevance to themselves and their everyday lives. Climate change was, however, still thought of as a negative phenomenon overall (Nicholson-Cole, 2005).

The author raised two additionally interesting points. Firstly, that negative imaginaries relaying possible future impacts were less relevant for participants given image abstractness and depictions of issues that may fall outside of their own lifespans (similarly, Duan et al. 2017; cf. on dystopia, Milkoreit, 2017). Contrastingly, locally or nationally-focused images held greater relevance, as did those referencing 'solutions' (Box 3.6) which includes renewable energy (cf., perhaps, Chapman et al. 2016). Secondly, while interviewees held people in general to be responsible for climate change, little reflection upon their own behaviours occurred. In this vein, personal behavioural changes were perceived once more as meaningless (the 'drop in the ocean' from Manzo, 2010b:203), particularly where other individuals and governments were not deemed to be taking action themselves (Nicholson-Cole, 2005).

Through reflecting upon these findings, the author suggested designing climate visuals to be as personally relevant and clear, and thus as effective, as possible. Moreover, including easy to follow instructions which highlight the relevance of behavioural shifts to climate change, and of climate change to the audience, was also stressed as important (Nicholson-Cole, 2005). In so doing, images and the climate may be understood in less abstract and distant ways, and motivation for actions to help address depicted challenges provided.

The author did not, however, introduce actual imagery into the conversations held with study participants. Consequently, the images elaborated upon by interviewees were those generated in their own minds within the research encounter, including therefore those seen previously through various media including film and television (Nicholson-Cole, 2005).

Certainly, many of the above themes and claims, including those around the understudied nature of climate imagery and visual representations, stand true also for the social movement scholarship. Since it is the visual construction of Nature and associated challenges from the environmental and climate movement which is central to the present research, consideration of this additional literature will now be covered in greater depth.[10]

Box 3.6: Renewable energy under a 'solutions' framing

Comment: Above are images showing renewable energy landscapes created through wind farm installations in what appear to be agricultural or otherwise open, less developed spaces. As examples of 'solutions'-based imagery, they speak to a shift away from fossil fuel dependencies and associated pollution which contribute to atmospheric GHG levels and global warming. In this way, these images could be interpreted as presenting actions which are already taking place to address climate change concerns, and this perhaps accounts for the positive although demotivational affects recorded – yet unexplained – by Chapman et al. (2016). Wind turbines, however, are not always viewed in a positive light and may be seen to cause disruption to existing areas, including aesthetically (for example, Brittan, 2001; Nohl, 2001; Pasqualetti, 2000). They may thus be seen to damage Nature-as-landscape perspectives of untouched, pristine, idyllic or otherwise visually appealing environments.

There is a contrast to be made between these two images as well. For instance, the image on the left leaves the turbines as dark, possibly menacing silhouettes of machinery emerging from the black soil among a low-lying mist. This may therefore be perceived in a more negative way by viewers, particularly if it was contrasted against the photograph on the left. This image is comparably brighter, and so of a potentially lighter mood. It also indicates how solutions imagery can show actions occurring in the present or future. Specifically, the use of the road which extends forward in the direction of the turbines which appear on the horizon could be understood as framing renewable technologies not only as a solution, but also as the future. The road leads to the development of this form of solution in response to climate change.

Finally, while these scenes may be familiar to viewers depending on their place of residence, the turbines are captured far away from the camera and so they might retain a degree of mystery or distance from viewers regardless of any general familiarity with such renewable energy landscapes.

Source: (*left*) "Green Energy", Jutta Benzenberg/World Bank (CC BY-NC-ND 2.0); (*right*) "The wind park near the village of Bulgarevo, Bulgaria", Boris Balabanov/World Bank (CC BY-NC-ND 2.0).

3.4 The Visuality of Social Movements

To begin considering the social movement literature, the ways movements can and have engaged with framing processes and what this entailed has been subject to a number of studies. In broader terms, scholars have highlighted how frame construction is important to create messages which resonate with others and may therefore aid recruitment. Moreover, framing processes are argued to facilitate the development of movement identities through defining the targets of their protest, subsequently feeding into 'us'-'them' distinctions (Snow et al. 1986; Tarrow, 1998; Chapter Four).

A number of studies have fallen along these lines, examining how images of protesters carrying out everyday activities such as cooking or cleaning can form an expressive performance of protest, for instance. Here, McGarry and colleagues (2019) focused explicitly upon the social media imagery that became a notable element of the 2013 occupation of Gezi Park in Istanbul, Turkey. Focusing upon visual representations of the 'everyday' and 'mundane' actions of participants, including cleaning, talking and eating, the authors argued that such images constituted a performance of protest which captured and conveyed the activities of movement participants in a certain manner, challenged dominant narratives and promoted ideas of 'normalcy' (McGarry et al. 2019). Such performances were further argued to potentially challenge frames, including of participants as violent, whilst building in-group solidarity. A consideration of these images, they further argued, is often missing in movement studies with text-based sources and messages frequently given preference (McGarry et al. 2019).

These findings therefore bore similarity to those of a study into the 'yellow vests' movement which began in France around 2018. During these protests, activists purposefully utilised images of themselves engaging in mundane activities to be both personally identifiable by viewers and counter opponent's attempts to frame participants as not representing ordinary citizens (Clément and Luhtakallio, 2021).

Related identity construction processes regarding orientation against an 'Other', meanwhile, was of specific concern for Doerr (2017). The overarching interest here was in understanding how the diffusion of far-right anti-immigrant imagery over European borders connected groups and activists, supporting a shared cross-country solidarity and identity producing what was discussed as a 'transnational network public' (Doerr, 2017:7). Through examining web-based materials, the author charted and analysed how the anti-immigrant 'black sheep' imagery published by a Swiss populist party travelled across national borders and linguistic barriers;

being adopted by similar groups in Italy and Germany (Box 3.7). Certainly, channels for diffusing materials including images can in this sense be deemed crucial with the internet and social media directly providing activists with such means (Mattoni and Teune, 2014; also Hopke, 2016).

One notable paper engaging with imagery along related lines was that of Jasper and Poulsen (1995) who were keen to examine recruitment processes regarding imagery and network ties. They did so comparatively between anti-nuclear and animal rights protest groups. Suggestions followed that imagery, like that depicting suffering animals, was able to produce 'moral shocks' through the emotional responses evoked. This subsequently facilitated protest recruitment where pre-existing network ties did not exist or were weak (alternatively spurring donations, see Manzo, 2010b; generally, Hoffbauer and Ramos, 2014).

As before, images creating strong emotional reactions may increase awareness yet pose the risk of simultaneously being counter-productive because these reactions could overwhelm or disturb, and thus be disengaging for viewers (Nicholson-Cole, 2005). Complementarily, Saunders et al. (2012) discussed 'approach' emotions such as anger and frustration which could push people to participate in protest, vis-à-vis 'avoidance' emotions which spoke more to feelings of worry or fear and may dissuade people from protest. There is, therefore, a strong affective element to protest participation which could be captured by imagery depending on the feelings evoked in viewers.

However, Jasper and Poulsen's (1995) focus on the role of imagery was relatively narrowly defined; it was a resource movement groups employ for recruitment purposes and not much else. This remains an insightful yet limited interpretation of the use – and usefulness – of imagery in general and for protest groups specifically. The project presented here therefore intends to build from and broaden the consideration of images as objects produced for various ends like recruitment, but also as possibly active attempt to convey or reinforce certain meta-narratives. Centred around their issues of concern – here, environmental and climate challenges – movements could engage in framing processes to redefine common ways of perceiving the world and life within it, including the non-human. The concern is therefore the development of master frames that challenge problematic yet culturally dominant conceptualisations of Nature as landscape. This will be elaborated upon in Chapter Four.

Box 3.7: 'Black sheep'

Comment: The Swiss People's Party 'black sheep' poster studied by Doerr (2017) is shown here. At the descriptive content level, the image, which is in a cartoon format, depicts three white sheep standing on a representation of the Swiss national flag. One of these sheep is physically kicking a black-coloured sheep from off the flag. This visual is accompanied by a short slogan about protecting the safety of 'our' home (read country), alongside the political party's logo and abbreviated name (SVP).

More symbolically, there is a process of Othering occurring here which can be related to racism. This is reflected, for instance, in how the threat to the home's security comes from a non-white sheep. Blackness, or non-whiteness in general, is thus problematised within the poster's security discourse. The solution indicated is consequently to forcibly remove those deemed problematic and undesirable from the country (hence the black sheep's removal from off the flag). Unlike the white sheep which are accepted as being in their proper place, the black sheep is depicted as a potentially dangerous, undermining entity that does not belong.

For reproduced examples of how the image was adapted to other national contexts, namely Italy and Germany, see Doerr's (2017) paper directly. The related possibility of image editing to increase circulation to speak to different audiences was also relevantly considered by Jones et al. (2022), amongst others.

Source: Online repository (Ithaca), accessed 6th May 2022:
http://www.ithaca.edu/depts/i/Swiss_Peoples_Party,_Creating_Security,_2007/14381_photo.jpg

Interestingly, Mattoni and Teune contended that social movements are 'essentially visual phenomena' (2014:876). Visuality here was cast broadly to include videos and images (photographs and posters), as well as clothing. Others have similarly highlighted how visual framing can form an important aspect of movement campaigns, including in the framing of protest actions (Doyle, 2007). Within their discussion, however, Mattoni and Teune (2014) argued that images can serve to facilitate recruitment through shocks, they may more broadly aim to generate sympathy from viewers. They again drew attention towards a limited visual focus for movement studies despite its importance or centrality, including producing sympathy for activists and their claims (Mattoni and Teune, 2014).

Drawing similar conclusions, parodies of cultural and religious icons by precariat worker protests in Italy were considered within an earlier paper (Mattoni and Doerr, 2007). Without dismissing these protests' text-based outputs which made claims for greater social and employment rights, the imagery which adopted and subverted pre-existing icons was suggested to potentially reach a wider audience while presenting clear critiques of current employment situations. Indeed, Mattoni and Doerr (2007) further proposed that although protester-produced texts relayed the commonalities in precariat experiences and demands, the visual imagery simultaneously disseminated was able to capture the diversity present within the protests; including gender and migrant aspects.

Others have also discussed the design and creation of items such as t-shirts within labour movements, with these serving as non-textual conduits for expressing grievances and demands (Iwadate, 2021). Clothing items can also become focal points for identity and expected behaviours associated with it (Benzecry, 2015), thereby potentially informing notions of 'us' and 'them' within protest movements (also Widener, 2022).

More directly relevant to the present research, however, was Doyle's (2007) examination of Greenpeace UK's climate imagery as part of their communication strategies from 1994 to 2007. Noting how media framings have enjoyed much scholarly attention, Greenpeace was purposely chosen since such non-governmental organisations' (NGOs) climate communications were identified as being understudied (Doyle, 2007). Defining five phases in Greenpeace's climate imagery use for various campaigns, ice-related images with the purpose to bear witness to climate impacts through the degradation of otherwise aesthetically appealing landscapes were frequently found. This was achieved partly through drawing direct comparisons between photographs taken in the past to those of the present within 'before and now' scenes showing

climate change, including glacial melt (see Doyle, 2007). Indeed, key climate imagery themes have been seen to emphasise notions of danger and vulnerability (Manzo, 2010a). However, an arguable tension or incongruity in the use of images as still photographs to convey climate change remains (Doyle, 2007).

Specifically, Doyle made a fairly keen and critical observation concerning how this type of campaign imagery necessarily represents climate impacts that have already occurred and cannot capture potential future consequences. Recalling, of course, that these possible futures are crucial to climate change as a long-term, enduring and ongoing global challenge. There was consequently an arguable limitation upon Greenpeace UK's climate imagery which stems from temporality; photographs necessarily relaying either the past or, at best, the present context (Doyle, 2007). Moreover, the use of shock in emphasising climate impacts as those that have already occurred could produce a sense of personal inability to make a difference given they were already unavoidable; an idea discussed earlier. There is also a potential distance introduced between the audiences and depicted events which can frame Nature as the only victim or focus with and absence of human stories. This was again a theme considered previously.

This remains potentially true for images of the Earth from space, which arguably present an entity separate from lived and tangible experiences (reflecting Doyle, 2007; also Manzo, 2010a). These pictures, originally produced by NASA as part of the Apollo programme and dubbed within some literature as 'Apollo's Eye' (otherwise and here, 'The Blue Marble'), have been discussed explicitly in this light. As relayed by O'Neill and Smith (2014), it has been subject to competing interpretations as symbolising a deep interweaving between the planet and life on one hand and, on the other, as representing socio-economic domination (also Sachs, 1999). It could also be seen to narrow the climate focus to one single issue, and namely global warming (Manzo, 2010a).

Nevertheless, it was adopted for climate campaigning with global-level calls for sustainability and action on the planet's behalf, including by figures like former US Vice President Al Gore. It was also deployed as a key visual for the 2021 COP26 meetings in the UK (Box 3.8) where the international community discussed climate issues and solutions under the United Nations' framework. With the latter, it could be deemed as another climate-related icon and synecdoche, highlighting global-level processes and consequences related to global warming. It is in this

way that the Blue Marble image shall be understood within the present research, alongside polar bears and other iconic imagery (for instance, Box 3.3).

As raised by Manzo (2010a), the existence of climate concern among the public does not always result in behaviour changes and this is in line with the broader notion of the 'value-action gap' (Blake, 1999). Moreover, while concern may be held, imagery that presents overwhelming threats, impacts that have already occurred and were unpreventable, or frames issues in ways that that appear spatially and temporally distant can result in viewers feeling unable to effectively act and so unmotivated in their behaviour. Indeed, such imagery can unintentionally produce a sense of powerlessness at the vastness and intangibility of climate change (similar points being made by others, including Latour et al. 2018).

Given behavioural shifts from wider publics are crucial for reducing GHG emissions and averting the most 'dangerous' climatic changes predicted, their motivation is crucial and could be galvanised more where climate change is linked to everyday experiences and practices (Nicholson-Cole, 2005). Here, Walsh (2015) suggested that to empower the public to act, climate communication may best focus upon relaying climate change on the individual level, covering both risks and practical suggestions about what can be done to effectively mitigate against them through everyday action (Nicholson-Cole, 2005; Wang et al. 2018).

It was in this sense that Christian Aid's climate campaign imagery deliberately employed satire as a tool to approach themes of vulnerability, development and the climate; possibly being able to 'circumvent guilt and empower the viewer to act' (Manzo, 2010a:105). However, Manzo (2010a) highlighted the possibility that climate imagery, including of 'vulnerable' peoples, can unknowingly reproduce (Western) colonial standpoints which depict the Global South as weaker, more vulnerable and less capable while depriving such nations or peoples of their own voices. By juxtaposition, the Global North could be inferred to be stronger and its intervention in the Global South's 'zones of vulnerability' subsequently necessary (Manzo, 2010a:102).

Box 3.8: The Earth and COP26

Comment: With the purpose to be used on social media coverage and discussion around COP26, a hashtag (#TogetherForOurPlanet) has also been included on this particular version of the image. This additional text perhaps helps understandings of the idea behind the usage of the view of the planet from space. It appears to speak specifically to an idea of an interconnected whole, and so there is a globality conveyed through its framing (Sachs, 1999).

This is relatable to notions of working for the benefit of the whole Earth. In this, therefore, the event and its purpose are not directly framed in terms of specific issues which may be more tangible or understandable for image viewers, including those with societal impacts and possibly greater communicative resonance for audiences. Instead, and as could be said of the Blue Marble in general, there is a potential distance placed between the viewer and the challenges which exist with a lack of location-specific focus and relation to everyday lived experiences (which can be important for audience engagement; Chapman et al. 2016). In other words, the image of the Earth coupled with the text represents the idea of interconnectedness and the international nature of environmental and climate issues, yet it may simultaneously create viewer-issue separation which could reduce the salience and impact of the image.

Moreover, it indicates that there is a mutual responsibility to act, captured directly by the use of 'Together'. Who this 'together' involves and who is attributed this responsibility, however, may be slightly ambiguous. Does it extend only to conference attendees and perhaps the richest nations among them, or is the claim a different one aimed also at members of the wider (international) public? In this way, impressions that individuals do not need to engage nor act could conversely be communicated if the intended message was the latter. Indeed, in this way there is overlap with images of politicians which take climate and environmental challenges away from the individual level and places them within a potentially problematic political realm (Box 3.5).

The original Blue Marble photograph from which this COP image was derived will be presented in a later chapter.

Source: "Twitter banner", COP26 (CC BY-NC-ND 2.0).

Yet, imagery is not only deployed to generate awareness or participation. The visual representations employed by movements can and have also served as means by which to reclaim and reassert some form of control or autonomy over identity. Such usage was observed by Brígido-Corachán (2017) in a study about anti-oil pipeline protests led by the Native American community around the Standing Rock Indian Reservation in 2016 and 2017. Here, the photographs disseminated online explicitly avoided reflecting colonial-related stereotypes of Native Americans as warriors in particular styles of clothing, riding horses in landscapes depicted as untouched land-turned-visual scenery; otherwise referable to as wilderness.

Cronon (1996) has written very informatively around the notion of wilderness in the US as a natural environment characterised as untouched by humans, but how it is in fact perceivable as a very specific product of (Western, Enlightenment and, by extension, colonial) society (Box 3.9). It is in itself an artificial construction of Nature associated with value structures which serve to obfuscate its basis in human culture; it can be seen as a more utopian opposite to (modern) society (Morton, 2007). To speak of 'wilderness', therefore, is not unproblematic but could compound colonial perceptions of Native American communities, identities and heritage. The wilderness or more general Western landscape vision could thus be seen to strip both Nature and the people living in particular environments of their agency. They could be rendered as an 'Other' through the application of Western viewpoints, values and culture which rests on detachment, visuality and cognitive evaluation. Moreover, the imposition of Western value structures towards Nature could result in the loss of indigenous voices and knowledge concerning environmental management, with these linked to less degrading practices and better environmental health (SEI and CEEW, 2022).

Instead, the Native Americans who partook in the Standing Rock protests conveyed visual stories of an intergenerational community's resistance and different, more interconnected and reciprocal relations between human bodies and practices vis-à-vis the land. Through this, Nature was depicted as more than an untouched visual phenomenon or usable resource (Brígido-Corachán, 2017). Subsequently, the author reported how imagery shared through social media was without filters or nostalgic elements, comprising 'no epic narratives, no dramatic ethos, but quiet, quotidian images that are not staged for a mainstream audience' (Brígido-Corachán, 2017:82). The imagery used in this movement was therefore decolonising both of the people and of Nature.

Box 3.9: A view of wilderness

Comment: Old trees, mountains and shrubs covered by a blue sky: a picturesque, tranquil wilderness scene of a natural environment without any obvious marks of human modification. But what, however, of the people who may live nearby, and for whom such space may be part of their everyday? What of their identities and agency? They could arguably become lost in the Western construction of Nature in the manner of wilderness as an untouched environment, and perhaps as one which represents a mental imaginary of a past (and so less developed) way of existence or life (Beza, 2010). Would this make the people who have a closer connection to this place, whether geographic or spiritual, less developed, too? This thereby underscores potential problems with landscape and related wilderness conceptions of 'Nature', informatively considered by Brígido-Corachán (2017) and Cronon (1996).

This kind of image may be visually appealing to (Western) audiences if subject to this pristine idyll frame, and this may support conservation efforts to maintain the land as it currently is. This could be stronger still if a wilderness landscape were placed in relation to the threat of, for example, industrial development, which is also possible to visually communicate. This may create additional urgency or importance for conservation work, highlighting and perhaps influencing audience contributions in protection of these spaces.

However, while such affects could be hypothesised, the question would still remain about how the land is understood and related to. Would it remain an external object valued for its beauty, or would it be seen in a deeper non-landscape way where there are complex interconnections and overlapping agencies? If it remained externalised and stripped of its agency, there is the danger that it would continue to be seen by some as a neutral resource; untapped yet potentially useful. Conceptualised in this way, perhaps the landscape vision and value structure could facilitate concern and encourage donations to conservation trusts, but it is arguable that it is this same vision which can underpin an approach to Nature where it is exploitable and consequently a source of environmentally degrading and climate change-contributing practices. This line of reasoning will be developed further in Chapter Four.

Source: "Photo submitted for UN Environment's Shaping Forests competition", Dominik Merges (CC BY-NC-SA 2.0).

Box 3.9: *Continued*

Comment: Consider briefly this second photo as well. This image presents a view over Bodmin Moor in Cornwall, UK. Taken from The Cheesewring, a hilltop rock formation, the vista extends outwards with the land, fairly flat yet also with some rolling hills, stretching towards the horizon where it meets a blue sky and light clouds which cast moving shadows on the ground in the sunlight. Windswept trees and rocky outcrops dotted across the land complete the scenery walkers are presented with.

It seems a wild and natural place, left largely untouched by modern human activity except perhaps for the gravel pathway visible in the centre of the photograph. A connection to the past, like that discussed in relation to mountainous landscapes in Box 2.1, is also perceivable here given this closeness to Nature and seeming distance from human developments. As part of this linkage to past ways of life which could be romanticizable for Nature's proximity and (as above, problematically) assumed simplicity, the Moor itself is the site of Neolithic or Bronze Age stone circles and barrows.

But what remains unseen in this picturesque, seemingly 'wild' landscape?

What this and similar images betray is how, although these vast areas of land may not take the form of agricultural field systems or urban-industrial developments, the traces of development can still be seen. For instance, there is a metal fence to the left of the photographer's position which provides some safety from the dangerous drop created by previous quarrying along one part of the hill. Behind the photographer, the land similarly stretches out into the distance, yet forms a patchwork of differently coloured fields divided by rows of trees designed by the landowners. Numerous houses and working agricultural buildings are also seen in this direction. Moreover, the moorland itself is not completely free of farming practices. There are herds of free-roaming cows with numbered tags in their ears, with the same true for flocks of sheep which bear additional signs of human management through red-painted spots on their coats.

Encounters with these more or less domesticated animals can take place along the path connecting the Cheesewring to the prehistoric monuments and, eventually, to a small car park on the outskirts of a local village. To viewers of the above image, and perhaps to many in-person visitors too, these scenes could nonetheless still speak to a landscape construction of Nature in which Bodmin Moor becomes a place of untouched, accessible Nature to be enjoyed for leisure and its picturesque scenery. It could speak to a simpler past despite its continued usage for daily life and livelihoods by locals. The Moor could thus become a site used and valued for its visual aesthetic and leisure purposes, but not much more. Such could be the effect of landscape.

Source: "A view over Bodmin Moor", the author.

3.5 Chapter Conclusion: Seeing Nature, Depicting the Climate

This chapter has therefore detailed a number of image-related findings, organised around the three broad themes of Nature, climate change and social movements. From the ensuing discussion, the 'sites' of the image, its production and its end audience all appeared important regarding how Nature is depicted, as well as the realities that images emphasise or downplay. It was also noted how viewer demographics, prior experiences of different types of Nature or culturally-informed beliefs and values influence what judgements are made about the representations placed before them (Buijs et al. 2009; Porter, 2018).

Accordingly, it was also raised and restated that Nature or similar imagery can produce emotional reactions and influence behaviours (Jasper and Poulsen, 1995; Nadkarni et al. 2017, amongst others). Furthermore, image frames would seem to be additionally important to studies concerned with Nature representation. Motivational messages and experiences can be relayed through various imaginaries (Milkoreit, 2017), yet they can be demotivational through the semblance of distance between the viewer and depicted challenges; as found poignantly regarding climate change and interwoven issues of time and space (Duan et al. 2017; O'Neill and Smith, 2014).

Indeed, while emotions can generate awareness, support and participation for movements or issues in general (Jasper and Poulsen, 1995), emotional resonance can paradoxically work against image producer intentions by dissuading viewers due to the strength of the depictions. According to the existing literature, this can especially be the case when images convey themes of fear and threat, and so also a sense of individual deficiency in addressing possible futures or, indeed, current situations (amongst others, Nicholson-Cole, 2005).

Studies have further seen how visual framing can seek to re-claim self-determination over a group's own identity against representations imposed by others (McGarry et al. 2019), or indirectly build international connections based on shared identities and politics (Doerr, 2017). This consideration has bridged into the realm concerned with decolonising (visual) discourses (Brígido-Corachán, 2017; also Manzo, 2010a). Such points are held to be relevant for a range of imagery, such as wilderness, humanised animals or polar bears on ever-retreating ice (Chapman et al. 2016; Manzo, 2010b; O'Neill, 2019).

What becomes apparent upon consulting this literature is the way in which authors have highlighted a limited consideration of images by scholars (for instance, Mattoni and Teune, 2014; McGarry et al. 2019; O'Neill et al. 2015; Wang et al. 2018; in terms of climate imagery

through social media, Pearce et al. 2019, 2020; about audience engagement, Hayes and O'Neill, 2021). This would appear to be a significant gap in the literature and the understandings it produces that is necessary to address in light of the importance and multifaceted nature of images as sociological objects; a point first established in the previous chapter.

Chapter Four: Theoretical Perspectives

4.1 Introduction

Having seen how the image holds potentially great importance to sociological understandings of events or identities, plus the myriad of ways in which Nature and the climate more broadly are perceivable, attention will now be turned towards building in a theoretical direction. In particular, an account shall be given of the social movement theory literature followed by a more focused discussion of framing processes and how the themes raised complement the present study. In so doing, a conceptualisation of the image as a locus of framing efforts by social movement groups shall be advocated, with further development presented through the work of Touraine and Latour in so far as meta-frame (from now on, 'master frame') construction and Nature are concerned. Therefore, the current chapter builds first from social movement theory, to framing more specifically, then offers a newer approach to studying project themes by linking discussions into insights from two noteworthy sociologists in the areas of movements and Nature, respectively.

4.2 Social Movement Theory

Beginning with social movement theory, it represents a vast, well-established and well-critiqued literature with three key lines of inquiry. These three approaches are, in brief, Resource Mobilisation, Political Opportunity Structure, and New Social Movement perspectives. These shall be considered in turn.

Firstly, however, it is important to define what a 'movement' is, and how it has been conceptualised within the literature. While 'movement', like 'protest' and similar terms, is used to refer to a myriad of phenomena (Melucci, 1996), Diani provided one notable definition in attempting to capture the essential elements of movements, suggesting that they can be seen as a 'network of informal interactions between a plurality of individuals, groups and/or organizations, engaged in a political or cultural conflict, on the basis of shared collective identity' (Diani, 1992:13); this networked aspect further developed by Saunders (2007a; amongst others). Indeed, the network feature can similarly be found within the broader movement notion of structural availability whereby knowing someone directly involved in protest suggestibly has the effect of increasing one's own probabilities of involvement

compared to situations without such network ties (Saunders et al. 2012; Schussman and Soule, 2005). Taking Diani's attempt as a starting point in understanding what a movement is, the conflictual and identity-related aspects subsequently link into Touraine's (1985, 2000, 2002) three central conditions which are also important. These were, the definition of self, other and the issue over which actors stake competing claims (also Latour et al. 2018; Melucci, 1996:30).

While fairly encompassing in breadth and levels of abstraction, these basic but no less shared definitional underpinnings of a movement are adopted for the present project. There do exist a plethora of more specific factors and influences on mobilisation, yet these too could be seen to fall under the adopted definition. A number of these factors are elaborated upon throughout what follows as attention is turned to the three core strands which exist within social movement studies, beginning with Resource Mobilisation.

4.2.1 Resource Mobilisation

Firstly, these 'grand' theoretical understandings of movements emerged largely in the 1960s and 70s (Snow, 2007). This was spurred by perceived deficiencies in grievance-based explanations of collective action coupled with the emergence of 'new' social movements which included civil rights, peace and environmental mobilisations not concerned with the more traditional economy and labour-oriented protest which preceded it (Melucci, 1996; Rootes, 1992; Van Stekelenberg et al. 2012).

For the former, it has been highlighted that the presence of grievance is insufficient in and of itself to produce collective action of some kind (Jasper, 2010; Snow, 2007; Snow et al. 1986), with attention subsequently directed towards other potentially influential features. Among these, and by drawing attention to resource availability and access, Resource Mobilisation (RM) scholars seek to emphasise the role of internal organisational structures and environments to movement formation, activities and success (Jasper, 2010; Kitschelt, 1986). Within this, resources have been broadly defined to include a myriad of types. These include finance, skills, expertise, staff, leadership, networks and legitimacy (Edwards and McCarthy, 2007; Saunders, 2013).

However, representing a key paper in the early development of the RM approach, McCarthy and Zald (1977) outlined its fundamental bases. As such, the presence or possession of resources is again not enough for any given 'social movement organisation' (SMO) to

successfully mobilise. These resources have first to be available and accessed by SMOs, suggesting the importance of movement organisational structures and capabilities (which benefit themselves from resources as skills, personnel, and leadership by movement 'entrepreneurs'; McCarthy and Zald, 1977). Without such structures, it has been contended, movements may fall short of securing mobilising resources such as finance and participants which ultimately facilitate SMO survival and action.

RM discussions have therefore centred upon the important ways in which movements attempt to influence 'adherents', namely those sympathetic to their concerns but uninvolved with their activities, to become 'constituents'; those providing some form of resource to support the SMO (Crossley, 2002; McCarthy and Zald, 1977). What constituents provide can again be understood in a more general rendering of 'resource' to include, for instance, time through volunteering, or financial donations which could extend solely to 'cheque-book' membership as regular monetary donations without further involvement in group. It is the contention of this present research that visual communication is important for not only maintaining constituents' involvement in any given SMO, but also to mobilise those adherents who may share the concerns of constituents and may, therefore, respond similarly to constituents in terms of the visual themes they are presented with by group communications; hence the importance of understanding movement member perspectives for wider (adherent) mobilisation potentials.

To continue with RM as a theoretical frame, however, SMO attempts to gain access to these resource 'pools' of potential constituents is not performed by one movement group alone. Indeed, conceptualisations note how SMOs find themselves in a position whereby they must cooperate or compete with other groups in order to access and benefit from the same constituent pool (Melucci, 1996). For McCarthy and Zald (1977), this is further defined through social movement 'industries' which comprise SMOs with congruent goals and/or concerns. It is within such industries that competition and cooperation over available resources within constituent pools emerges. For a brief illustrative example, in the present project individual case groups include SMOs like Greenpeace which, according to their area of concern and mobilisation, would fall under an environment and climate-oriented social movement industry.

Since groups can express their goals and claims differently, defining industry boundaries and membership may not always be simple (McCarthy and Zald, 1977). Moreover, with the shift from 'old' to 'new' issues, such as from labour rights to the environment, social movement industries or sectors include both more formal or long-lasting organisations alongside relatively

short-lived, informal groups (Van Stekelenberg et al. 2012). This shift could in turn influence movement research to examine protests' individual-level features rather than organisational factors (Walgrave and Verhulst, 2011).

There are additional points to raise concerning RM perspectives in general. One regards the activities movements undertake to gain access to these pools, and this speaks in particular to the networked element of the movement definition presented above. Specifically, McCarthy and Zald (1977) postulated that in order to access adherents who are not structurally available, and to convert them into constituents, SMOs may strategically turn more towards advertising techniques through various media to present their goals and other group details. They raise the possibility too that constituents who are structurally available through pre-existing ties to the movement represent a more consistent or reliable resource access point than those who are less connected and, resultantly, comparably 'isolated' (McCarthy and Zald, 1977:1228; reflected also in Edwards and McCarthy, 2007; Jenkins, 1983).

As mentioned, development of RM perspectives in this direction therefore helps to underline network importance to SMOs alongside their organisational capabilities to access resources of various kinds. By extension, however, organisational capacities and activities should extend beyond initial access to a constituent pool to facilitate the effective use of gained resources to sustain movement actions in pursuit of their goals as well.

There is however an issue arguably existing around the central idea of the 'resource' in Resource Mobilisation. To elaborate, authors have pointed towards the wide application of the term to encapsulate an increasing amount of goods, both material or non-material (in the latter sense, legitimacy, for instance). Saunders (2013) as well as Soule et al. (1999) are among those who have raised this issue, warning that, as with many concepts within movement or other literatures, the wide usage of 'resource' to refer to a plethora of items could transform it into a catch-all phrase. In this case, the term underpinning much of the RM frame concerning mobilisation would arguably be rendered less useful to knowledge around SMOs and the processes in which they engage.

Beyond networks for resource access, appealing to adherents and constituents has been framed within a rational choice paradigm. Through this, those whom SMOs target for resource access and recruitment are more likely to contribute if they themselves will benefit in some manner. These benefits are thus juxtaposed and weighed against the perceived costs which may be incurred through involvement with an SMO (Saunders, 2013). As such, links exist to the idea

of freeriding in which an actor accrues some benefit through the mobilisation of others while avoiding any costs which could be associated with their own involvement in action (Cohen, 1985; Jenkins, 1983; Melucci, 1996; Saunders, 2013).

Consequently, to access resource pools SMOs may decide to target individuals with incentives to promote their becoming – and remaining – a constituent. This, like the concept of resources more generally, can be put in terms of material (including financial) and non-material (opportunities to share and reinforce an identity or a sense of belongingness) incentives (Jenkins, 1983; Klandermans and Oegema, 1987; Melucci, 1996; Saunders, 2013).

Finally, a criticism of structural bias has also been levelled at RM theorisations. Here, successful groups such as Greenpeace or Friends of the Earth can be depicted as professionalised, institutionalised and organisationally effective SMOs (Doyle, 2007; Saunders, 2012; next chapter), thus ensuring their continued survival. However, mobilisations still occur even in situations where these strong, formalised organisational characteristics are not present in other groups.

This has been suggested by a study of self-declared autonomous and non-hierarchical movement groups which formed part of an anti-globalisation movement in Spain. In this, Flesher Fominaya (2010) paid close attention to the comparable lack of formal organisational structures which existed. The author thereby illustrated how these groups held horizontal assemblies where a range of movement participants interacted to decide upon the key aims and activities to be followed by the group going forward. This thereby added some weight to contentions that RM approaches over-emphasise the importance of organisational structures behind the success or failure of mobilisations, and so fails to account for non-hierarchical group structures which can to some degree sustain mobilisation.

Highlighted also could be lifestyle movements centred in the everyday practice of individuals' lives, like with vegetarianism or veganism. Consequently, these movements do not require resource access in the same manner or to the same ends as movement types that are captured by the RM notion of organised SMOs (see Haenfleur et al. 2012). This feeds into suggestions around an alternative centring of culture and identity within accounts of movements, with these considered later with the New Social Movement approach of social movement theory. RM is not the only (structurally-leaning) conceptual framework through which attempts have been made to make sense of movements and mobilisations, however, with important insights presented through the lens of 'political opportunities' which is now to be considered.

4.2.2 Political Opportunity Structures

This second key strand of Political Opportunity Structures (POS) has enjoyed much attention with social movement studies. As opposed to RM, POS centres upon the environment external to movements (Tarrow, 1998; Tilly, 2006). Specifically, the 'structures' forming the bedrock of this perspective broadly yet not exclusively refer to 'the stability of political alignments, the formal channels of access to the political system, the availability of allies within the polity, and intra-elite conflict' (Diani, 1996:1055). Alongside these components, levels of state (de)centralisation, policy-making and implementation capacities and the degree of legitimacy state institutions enjoy have also been incorporated into POS accounts (Tarrow, 1998; Tilly, 2006; also Goodwin and Jasper, 1999).

Resultantly, work along these lines has suggested that the possession of grievances and resources are not sufficient conditions for actual mobilisation efforts; in contrast to RM's emphasis upon resource access, use and organisational capabilities. Instead, there is an added importance upon how movement actors evaluate and respond to the structural elements they are faced with and the subsequent expectations for mobilisation success and effectiveness (Diani, 1996; Suh, 2001).

It is along these lines that another definition from the POS literature emerges, namely that external structures highlight the importance of 'specific configurations of resources, institutional arrangements and historical precedents for social mobilisation, which facilitate the development of protest movements in some instances and constrain them in others' (Kitschelt, 1986:58). This thereby underlines the idea that resources have a place yet, in and of themselves, are not enough since they are collected and utilised within a broader political, structural and institutional environment.

By 'specific configurations', attention is brought to a distinction between 'open' and 'closed' systems. With this, Eisinger (1973) served as an early point of reference through the study of Black-led protests in US cities which showed different institutional features. Broadly put, open POS grants movement actors access to responsive, and perhaps sympathetic, policy-makers. Meanwhile, the closed variant indicates the opposite situation where mobilisation is not encouraged through greater chances to encounter repressive responses from authorities which remain unresponsive to movement claims and goals. With the former, Eisinger (1973) additionally suggested that, at the extreme end of open systems, such openness and responsivity from government agencies could serve to allay the need to engage in collective action as

authorities' agendas already align well with those of movement actors whose input is encouraged by the state.

Openness has elsewhere been characterised as an 'expansion' of POS, such as an increased likelihood or ability for a state to implement policy programmes which speak to movement concerns. It has been considered in terms of an increasing number of access points to a polity for movements, too. This has in turn been related to the degree of state decentralisation, or situations where a plurality of political parties exist within a system, providing more avenues for movement goals and claims to be incorporated into policy-making processes (Kitschelt, 1986; Kriesi, 2007; Melucci, 1996; Van der Heijden, 1999).

Elections serve as another example of POS expansion when understood as a period of elite instability facilitating mobilisation. Kousis (2007) explored this particular facet through consulting two decades of newspaper and ecology magazine publications with a content analysis. From this, the author suggested that protest was seen to increase during election periods on the Greek island of Crete. Moreover, some evidence supporting ideas that protest increases under right-wing governments while remaining comparably lower under left-wing governments was found. This chimed POS' emphasis on the presence of elite allies who are more open to movements and so encourage their activities. Another relevant suggestion from the scholarship is that left-leaning political parties may be broadly more supportive of mobilisations than others and, when in government, introduce a policy platform which appeals to movement actors and potentially lessens the requirement for mobilisation (Kriesi et al. 1992).

Closure, on the other hand, has been defined as a 'contraction' in opportunities through an increased tendency or material capability for authorities to repress mobilisations, for example (Suh, 2001). Indeed, it reflects the reverse situation to decentralisation and a range of accessible political actors within state. In short, closure has been taken to denote increased repression and thus higher mobilisations costs, this in turn dissuading movement activities. That said, others have proposed that any form of government repression holds the potential to be both demobilising and mobilising (Diani, 1996; Goodwin and Jasper, 1999).

Consequently, POS could arguably be more open or closed to different movements at the same moment in time. This idea was elaborated upon by Garland et al. (2023) who suggested a revised POS framework examining the possibilities of movement mobilisation not only under open or closed national-level structures, but also with the openness or closure presented to

movements simultaneously at the local-level. As a result, the authors emphasised the interactions and influences which may be present in a multi-level rendering of POS, conceptualising this as the 'local-national-state-nexus' (Garland et al. 2023:212).

Indeed, Eisinger (1973) noted how mobilisation may be more likely when opportunity structures comprise a mix of open and closed features, such as the ability to access authorities without repression but also without complete accommodation; both of these features being demobilising according to Eisinger. Extending the ideas still further, it has been proposed that mobilisation in response to POS at any given time may itself render opportunity structures more conducive to further such mobilisation in the future (Goodwin and Jasper, 1999).

It is suggestable from these points that this open-closed dynamic of the POS framework helps highlight the complex compositions of opportunity-related factors within a state. Moreover, it does so alongside consideration of the equally complex and multiple interactions movement groups might assume in relation to them. By extension, however, it is possible to contend from this basis that what is being highlighted is also a shortcoming in POS explanations for movement activities vis-à-vis institutional settings.

Specifically, since the range of factors discussed under the idea of open and closed systems can be simultaneously constraining yet also facilitative of mobilisation (Goodwin and Jasper, 1999), the complexities of the interactions risk obfuscation (Saunders, 2013). Certainly, the explanatory power of POS components could be seen to have no clear nor consistent influence upon movement activities when taken at this more general level.

While many insights have been gained by theorising around movement mobilisations in these ways, this does reflect criticisms of POS within the movement literature. Chief among these are claims of definitional incoherence and wide applications or understandings of POS (Goodwin and Jasper, 1999; Soule et al. 1999). As with the broad and possibly catch-all notion of 'resource' within RM, questions exist around definitions of 'political opportunity', as well as 'structure', under POS. With this, authors have pointed towards how structure has been extended to include both more stable and changeable aspects of a polity; where the latter includes political elite alliances and government strategies regarding movements, and the former more enduring electoral and constitutional systems (Saunders, 2013; Suh, 2001; Tarrow, 1998).

For Goodwin and Jasper (1999) the result is a structural bias within POS wherein the non-structural, such as emotion and culture, is conflated with the structural (also Jasper, 2010). An

example here concerns the non-delineation between a state's ability to repress and its inclination to do so. This ability to repress would refer to material resources held by a state, and the latter to more changeable strategies or decision-making by political elites presently in government (Goodwin and Jasper, 1999). Moreover, given such definitional flexibility and stretching, scholars have further pointed to the risk of 'opportunity structures' becoming another catch-all phrase; potentially rendering POS of little theoretical value and discernment (Goodwin and Jasper, 1999).

Additionally, the open-closed system dynamic and its relation to movement activities could be interpreted as indicating the presence of a cost-benefit tendency within this literature (as found regarding RM). This can be claimed insofar as POS represents movement actors as examining the potentials for mobilisation success and failure, weighing the options and associated costs and benefits before deciding upon a strategy in relation to the expansion or contraction of opportunity structures (Suh, 2001).

Nevertheless, further theoretical development of POS has occurred. Building on the open-closed structures central to this strand of social movement theory, efforts to define 'weak' and 'strong' states have been made. These attempt to introduce greater detail into the account of opportunity structures provided so far. This relates, however, to two further concepts; namely, input and output structures.

To elaborate, the input structure concerns the points of access a polity grants to actors, while output structure refers to a state's ability to successfully implement policy. From this, 'weak states' is a label applied to polities where an input structure conducive to movement contributions is coupled with a lack of output structure capabilities. Strong states, meanwhile, have limited input yet well-functioning output structures (Kriesi, 2007; Van der Heijden, 1999).

Representing a more empirical application of these concepts, a content analysis of print newspaper materials spanning fourteen years helped Kriesi et al. (1992) to construct a typology. They thereby provided greater elaboration upon movement-state interactions under a POS perspective, centring attention on these within different opportunity structures and the state-based strategies they inform. It also indicated the implications of these strategies for mobilisation and the tactics movements employ.

Specifically, where a state is both strong yet open, 'informal co-optation' was said to be likely and involves movements enjoying access to policy-makers via informal channels, but with the possibility of (occasional) repression. In the reverse situation with a weak state and closed

opportunities, movement actors hold some formal access to the state but again retain the possibility of experiencing repression. This was termed 'formalistic inclusion' by Kriesi and colleagues (1992).

Concerning this framework's remaining two categories, 'full exclusion' occurs where movements have no access to state apparatus and could be subject to repressive action; the state being both strong and closed. Lastly, and again reflecting the opposite case, 'full procedural integration' sees open and weak states. Resultantly, movements may enjoy a range of formal and informal points of access to engage in policy discussions (Kriesi et al. 1992).

Once more, however, there does not appear to be much room for a consideration of agency-related factors behind mobilisation, focusing only upon external structures which inform state strategies towards movements; these constraining or facilitating movement activities in turn (Goodwin and Jasper, 1999). The POS literature nonetheless claims such structures as central to movement mobilisation and tactics.

For example, assimilative tactics aim at capitalising on polity openness and thereby promote the use of petitions, litigation and voting to pursue movement objectives. When faced with closure, confrontational activities like direct action may become more viable without channels of access to policy-makers (Garland et al. 2023; Kitschelt, 1986; Saunders, 2013). That said, movements do not always target the state and so these might remain unaffected by state strategies since they do not necessarily interact with the polity (Crossley, 2002; Saunders, 2013), including aforementioned lifestyle movements (Haenfleur et al. 2012).

Moreover, movements do not always target national-level government authorities, but can focus upon and respond more intuitively to local-level structures. Discussed by North (1998) and Saunders (2007b) through studies of anti-roads and anti-cinema construction protests respectively, these authors examined how campaigns attempted firstly to engage with local authorities during the planning process stage which, in the UK, is local government's responsibility. However, after perceiving closure following the end of planning consultations in favour of development, the movements altered their tactics (also Garland et al. 2023). This included greater cooperation between residents' and radical protest groups (Saunders, 2007b), and the adoption of previously unused direct action repertoires (North, 1998).

From the above, therefore, it becomes clear that POS approaches are based strongly in a consideration of the institutional structures surrounding mobilisations, and how these in turn

influence movement repertoires in line with any given contraction or expansion of polity access.

4.2.3 New Social Movements

Meanwhile, the third noteworthy social movement theory strand concerns the New Social Movement (NSM) approach which, in a break from RM and POS, builds upon less structural foundations. To do so, it is important to mention one of the central scholars in this area, namely Melucci (1980), who drew attention to features including identity, solidarity and, as Rebughini and Scribano (2018) well-discuss, (embodied) emotion. Here, identity and solidarity were not solely conceptualised as facets of a movement as it pursues its objectives and actions, but they become themselves part of the end goal of movement groups and their participants (Melucci, 1996; also Tarrow, 2019). Moreover, it has been suggested that priority has shifted away from concerns about influencing policy-makers, to being able to define oneself and be recognised based on this identity.

As such, Touraine's (1985) emphasis on movement engagement in the definition of a conflictual Other may not be captured under one understanding of NSM, unlike RM and POS. Nevertheless, it is perhaps with this in mind that Diani's movement definition includes both 'political *or cultural conflict*' (1992:13, emphasis added), thus enabling culturally-centred (read, identity and lifestyle-oriented) movement actors to arguably be included.

Indeed, for Pizzorno (discussed by Tarrow, 2019), collective identity emerges within periods of significant societal conflict and remains a core movement goal in itself. It is additionally held to form a necessary requirement behind actor interactions and understandings of others' behaviours. Certainly, NSM offers a greater focus on agency-related factors informing mobilisation, including emotions which Melucci considered to be part of both an actor's agency and processes of meaning-making, thereby going beyond rational choice or material- and structure-based accounts of movements (Melucci, 1996; also Rebughini and Scribano, 2018).

With collective identity foregrounded in NSM theorisation, movements are held to engage actively in its development and definition over time. Subsequently, collective identity has been understood by some movement scholars to represent an emotional, affective, ongoing and changeable process involving senses of connectedness and belonginess within a group. In turn, this sense of being which could be deemed to represent feelings of solidarity feeds into a

conception of what it means to be 'us'; with this important for mobilisation (Diani and Bison, 2004; Rebughini and Scribano, 2018; Saunders, 2013). Indeed, for Melucci (1996) collective identity does not just exist as a given, but is rather built through processes of negotiation and conflict over time.

Linking to networked aspects of the above movement definition, this point has been interpreted as leaving open the possibility that processes of collective identity and solidarity formation could result in greater distance between different movement groups. To explain, it has been claimed that the stronger a shared identity and affiliation to one group becomes, the stronger ideas of 'us'-'them' distinctions might relatedly be. Consequently, and while strong in-group ties could facilitate collective action participation, such between-group distinctions may hinder wider, more cooperative collective actions (Diani and Bison, 2004; Melucci, 1996; Polletta and Jasper, 2001; Saunders, 2013). Others have further suggested that emotional ties and affective senses of belonging or connection to a group sustain group networks through latent periods in which mobilisation does not occur (Flesher Fominaya, 2010; Polletta and Jasper, 2001; Rebughini and Scribano, 2018); although cross-group, movement-level networks may become fragmented in such periods (Saunders, 2007a).

The (dis)similarity of inter-group perspectives can be understood through the values, beliefs and behaviours which may be cornerstones of the collective intra-group identities that have been built. While not a view shared by Flesher Fominaya (2010), from these networked ideas regarding in-groups and Others, Saunders (2013) suggested that collective identity may be better conceptualised as a group-level – not cross-movement – process. This was based on how it could lead to cleavages between movement actors precisely along identity, solidarity and commitment lines. Indeed, it was Saunders' (2013) contention that given the variety of individual group identities, campaign tactics and issues of primary concern, the existence of movement-wide collective identity is unlikely. This, however, does not by extension mean that the groups do not form part of a wider movement. These are then the considerations forming the backbone of NSM perspectives.

In summary, therefore, social movement theory has drawn attention towards a number of diverse elements which may exist behind mobilisations. Resource Mobilisation places the most emphasis upon a movement's internal organisational capacities, leaders and strategies alongside a range of broadly defined and accessible resources. Meanwhile, Political Opportunity Structure frameworks shift the focus from the internal, which has been argued to

be insufficient in and of itself to produce (successful) mobilisation, towards the external. As such, the nature of the political system, including elite alliance and division structures, for instance, are deemed crucial to mobilisation through presenting relatively open or closed contexts for movements to respond to. While RM and POS have been critiqued for over-emphasising structural factors, the New Social Movement approach provides a view of movements based upon non-structural notions of collective identity and solidarity; these discussions supplemented by debate around the in- and out-group dynamics that might result.

Within movement studies in general, however, and under these core strands, framing has also been conceptualised and applied. Understood broadly as providing aids to help issue or grievance interpretation, including their definition, causes and solutions (Jang and Hart, 2015), frames and framing processes will now be considered in greater detail.

4.3 Framing

The work of Snow and colleagues (1986; also, Cress and Snow, 2000; Snow, 2007) provides a good starting point. The authors aimed to present a formal conceptualisation of frames and framing in social movement studies, drawing upon previous research for illustrative examples while highlighting how movement literature was underdeveloped in this area (also Cress and Snow, 2000). Frames were presented as interpretative lenses which 'organize experience and guide action' (Snow et al. 1986:464), linking otherwise loosely or unconnected issues, events or actors under a more or less coherent worldview (Snow, 2007).

Consequently, how the world is framed bears relation to what behaviours are deemed acceptable and which are to be curtailed. This thereby extends further to the (de-)legitimation of actors, the actions they take and movement possibilities for gaining sympathetic allies (Cress and Snow, 2000; Snow et al. 1986). Frames and framing can additionally be situated in a broader context in which they are themselves influenced by existing socio-political, structural and cultural factors within society, or relate explicitly to the socio-economic and physical characteristics of place (in the latter sense, Martin, 2003).

Framing considerations are not restricted to the movement literature, however, with Goffman (1974) being an important reference point. For Goffman, frames related to the definition and organisation of experiences. They related to the initial meaning-making surrounding the materials and happenings within a scene which are comprehended via 'primary frameworks'

where there is either a perceived agency behind occurrences (social frameworks) or not (natural frameworks). In this sense, it can be highlighted how frames rest not solely on an actor's behaviour or mentality around events, but also to the environment in which that behaviour occurs. That said, the primary framework is an open process whereby understandings of a scene are transformed through 'keys' and 'keying'; and this can draw upon the conventions or norms surrounding an activity (Goffman, 1974:43).

There were however limits for Goffman insofar as framings are deemed acceptable or appropriate; this being changeable over time and across spatial contexts. Certainly, events and activities could be seen in various lights through different frames and keyings based upon primary frameworks. The possibility for people to hold different frames for a variety of reasons thus exists, resulting in added possibilities for frame disputes between actors. The framing adopted, furthermore, influences and informs the types and extents of involvement actors take within events (Goffman, 1974).

For the present project, therefore, framing is understood in the common sense as an ongoing process of meaning-making around issues, events or actors which is actively engaged with by said actors. Oriented towards some end, these actors present their interpretations of phenomena and emphasise potentially contradictory elements of a perceived reality in line with their values, normative beliefs, knowledge, interests and experiences through frames. This process subsequently informs behaviours, identities, networking and legitimacy among a wider audience. Frames can both challenge and be challenged by alternative, competing frames. Moreover, they are held both individually and collectively. These features thereby remain in-keeping with the literature (for instance, Johnston, 2002; Juhola et al. 2011; Martin, 2003; McEvoy et al. 2013; Snow, 2007; Vink et al. 2013).

With this in mind, Snow and colleagues (1986) proposed a definition of four crucial and framing strategies SMOs could employ. Falling under the overarching term of frame alignment, these were frame bridging, amplification, extension and transformation (Snow et al. 1986). To elaborate upon these in turn, frame bridging primarily concerned bringing together movement groups and individuals who hold similar issue concerns but have remained structurally disconnected from each other. It could, for the authors, involve SMOs reaching out to potential members and supporters (adherents) through various media, postal and network-related communications.

Frame amplification, meanwhile, was divided into two sub-categories of value and belief amplification. The overarching idea was that amplification developed and promoted particular frames with, under one form, certain values regarding ways of life or behaviour (re-)emphasised and linked into movement goals. With the other, beliefs were selectively emphasised instead with these suggested to constrain or promote certain actions in pursuit of values and goals. Belief amplification was categorised along the lines of issue severity, cause and blame, action targets, probabilities for change stemming from actions and, finally, the overall necessity to mobilise on an issue (Snow et al. 1986).

To continue with the last two important framing processes conceptualised by the authors, frame extension was suggested to involve SMOs widening the boundaries of their core standpoints to speak to potential adherents with viewpoints related to but not directly concerned with the core SMO concern. Resultantly, the intention is to broaden the appeal of the SMO and its claims by speaking to a connected yet nonetheless wider range of issue concerns and interests. Meanwhile, the fourth process covered was frame transformation. This entailed more fundamental revisions and reorientations of SMO frames, including where current frames lack salience for or are in opposition to those of adherents whom SMOs may wish to involve in their movement (Snow et al. 1986).

In the above, therefore, frames are not static phenomena but open to change over time. Moreover, they are linked closely to the interactional settings through which they are negotiated, challenged, adopted and altered, with meanings contested as part of 'discursive fields' (Snow, 2007). Indeed, framing is an ongoing process in which actors, including movement groups, actively participate (Cress and Snow, 2000; Snow et al. 1986). That said, frames and framing processes have also been subject to differential application with Diani (1996), for instance, more narrowly conceptualising frame alignment as concerning SMO messages' relation to master frame interpretations of external political environments rather than about appeals to movement members and potential supporters.

Additionally, two further types of frame have also been developed within the literature. They concern how issues are perceived and addressed. Specifically, these are diagnostic and prognostic frames where the former centres upon the attention and definition granted to issues, as well as responsibility or blame placement. The latter focuses upon defining solutions to these issues, how they can be achieved and what SMO objectives or roles are within this (Cress and Snow, 2000; Martin, 2003).

Once more, these are not static but, according to Cress and Snow, may be more effectively performed by what they refer to as 'viable' SMOs. By this, the authors indicated groups with a reliable resource base; boasting 'the raw materials (e.g., alternative ideas) and interactional venues (e.g., meetings) and mechanisms (e.g., talk and debate)' (Cress and Snow, 2000:1099) facilitating frame development and advocacy.

However, the POS-related critiques of structural bias made by Goodwin and Jasper (1999) remain applicable. These authors contended that framing, while a POS attempt to introduce cultural aspects into conceptualisations, misses much of culture and renders what it does consider in structural terms. Specifically, they argued that culture becomes reduced in POS accounts of framing, being equated with active and strategic undertakings by movement leaders regarding mobilisation efforts under certain structurally-bound opportunities. The point was thus made that framing as a cultural phenomenon does not necessarily emerge through strategizing, but can instead be heavily influenced by the wider cultural contexts within which groups and their audiences exist. Consequently, the culture in SMO frames may not be purposively constructed but rather influenced naturally by the wider culture (Goodwin and Jasper, 1999; also Rose, 2001; Chapter Two).

Nevertheless, emphasis on the importance of framing to POS understandings of social movements has been made. Suh (2001), for instance, maintained that while POS are important, framing as the perceiving of these opportunities could be a causal factor behind mobilisation as a response to this perceiving. Using the case of South Korean hospital union activities through archival sources and interviews with union leaders, Suh centred the idea of 'misframing' within their analysis; thereby making reference to Goffman. For Goffman (1974), misframing involved an actor reaching an erroneous conception of what is occurring before then pursuing behaviours which could be inappropriate to the situation as it is framed by others. Two misframing processes were taken into account by Suh (2001); namely, 'pseudofailure' and 'pseudosuccess'.

The first concerned attribution of non-desired outcomes to opponents when failure to obtain certain goals has emerged from a movement's own inabilities. With the Korean case, this was discussed as a mis-attribution of the reason for failure to the government that was being targeted; increasing anti-government sentiment which promoted further mobilisation as a result. Meanwhile, pseudosuccess related to the framing of gains or preferred outcomes to movement efficacy – suggested to help strengthen notions of solidarity within a movement –

even if they resulted from non-movement events. These events were held to include POS expansion, defined narrowly as increases in the state's ability to implement policies, including those more conducive to SMO goals. As a result, Suh (2001) extended framing within a POS framework beyond its effects on initial mobilisation, noting how misframing around mobilisation outcomes could facilitate further SMOs actions.

Indeed, Diani (1996) argued for a consideration of framing within POS along similar lines. Alternatively, however, attention rested on the idea of master frames. Master frames were here conceptualised as 'a specific dominant representation of the political environment' (Diani, 1996:1054). The underlying claim was that the extent to which SMO messaging speaks to existing master frames is important for mobilisation success. The author therefore provided a typology of frames regarding their effectiveness under different POS contexts. These contexts involved a high or low degree of opportunity from cleavage structures alongside opportunities to autonomously undertake action (Diani, 1996).

Diani (1996) thereby proposed four possible SMO framings which relate to and make use of POS and, by extension, master frames. These were, in brief: realignment frames aimed at restructuring political systems, particularly regarding newer shared identities; inclusion frames in which actors seek legitimisation from a polity in its current form; revitalisation frames which equated to a form of entryism by attempting to redirect existing organisations from the inside; and, anti-system frames which advocate more fundamental transformations of a polity. At this point, therefore, and conceptually-speaking, framing has been defined and operationalised in a variety of ways within the literature, including in the social movement field.

Empirical applications of framing theory, to provide examples, have been conducted regarding water policy issues with respect to climate change. Here, Vink et al. (2013) offered an account of the environment and climate framings employed within three official announcements concerning water (flood) policies in the Netherlands. Employing a textual analysis for their frame analysis approach, the authors used what they considered to be a comprehensive, comparative means to understand frames. In particular, examined were: the actor behind the framing; how the main problem (flooding) has been constructed; whether and how climate change has been included within problem definitions; the timeframe focused upon; proposed governance arrangements and specific policy recommendations.

Through this, Vink and colleagues (2013:99) highlighted how knowledge, including climate science, was 'selectively used to enforce the relevant frame' and thereby served as a 'discursive

resource' around which active policy decisions were made. Moreover, they suggested that these and related framing decisions can also aim to attribute or legitimise the power of one actor or set of interests over others regarding action on environmental and climate-connected matters like water policy and flooding.

While focusing on a limited number of Dutch water policy announcements, the study demonstrated a range of ways through which the environment and climate were framed. For instance, regarding the climate there were differences between the policy announcements with various mentions of climate change in general terms, including as a contextual factor without causal attributions clarified. Reference to climate-related challenges such as sea level rise and drought were also found, but without direct mention of 'climate change' at a time of reduced media attention on this issue. Thirdly, another frame mentioned climatic shifts under a worst-case future scenario which was used to justify the idea of more dramatic actions in the present (recall the dystopic yet motivational imaginaries of Milkoreit, 2017; Chapter Three).

Turning to the environment, while one announcement linked flood prevention to economic wellbeing, another framed a proposed flooding avoidance solution in terms of reconciling human land uses with a river's flow; explicitly understanding a past and more 'natural' status for the river as a possible and preferable policy option (Vink et al. 2013). The authors thereby underlined the diversity of frames possible to defining environmental and climate issues and solutions.

Additional empirical examples of framing can be also noted. Among these, Aklin and Urpelainen (2013) discussed the framing of clean energy in a US policy and climate change context. They conducted two fair-sized survey experiments with American citizens (one representative, one less so) who were shown a combination of negative and/or positive economic and national security-oriented textual framings. As a result, the authors advanced their core argument and hypothesis that counter-framing is an important aspect to bear in mind.

Certainly, it could be suggested that a frame does not exist in isolation, but remains contestable by other frames. In this sense, while movement frames are often discussed as having particular aims and effects upon an audience, including for recruitment or resource access, so a movement's targets or opponents can similarly engage in framing practices that challenge those of movement actors.

Therefore, although particular frames can have some form of impact upon an audience, the presence of counter frames and audience members' exposure to them can neutralise the effects

of original framings which is brought under scrutiny and questioned. This was a key implication expressed by Aklin and Urpelainen (2013). They additionally suggested that this occurs partially in relation to the uncertainties that different, competing frames produce through their use of information and emphasis of certain aspects over others; possibly increasing audience apathy towards an issue. More recently, others have also pointed towards this competition for salience between frames, with Geunther et al. (2023:2) referring to this contested space as a 'cultural framing repository'.

Insofar as climate-oriented framings are concerned, it has been noted how 'resilience' frames were adopted in an Australian policy context rather than more negative framings centring attention on risks and vulnerability (McEvoy et al. 2013). That said, McEvoy and colleagues (2013) highlighted how these positive climate adaptation framings reflecting resilience themes still lacked definitional consensus around what 'resilience' meant. Indeed, the authors mentioned how this could be beneficial by allowing diverse ideas to be shared and introduced into adaptation policies, but also a hindrance through possibly broadening the resilience concept and rendering it a less useful 'catch-all' phrase. Regardless, McEvoy et al. (2013) perceived a disjuncture between the use of the resilience term and its successful translation into practice despite its increased use as a climate adaptation frame, with this reflecting a value-action gap (Blake, 1999).

Nevertheless, links exist here to a further specification of framing processes; namely to its 'nested levels' (McEvoy et al. 2013:282). These levels involve values and beliefs (the meta level), the definition and conceptualisation of scientific ideas plus different plausible actions and subsequent outcomes (at the conceptual level) and, lastly, the practical enaction of frames (the operational level). In this way, previously discussed framing elements are conceptually re-affirmed. Furthermore, the value-action gap indicated by McEvoy et al. (2013) regarding Australian policy would consequently fall between the meta and conceptual levels on the one side, and the operational on the other.

While resilience was adopted as a climate adaptation frame in Australia, vulnerability framings have been found to predominate within some European adaptation contexts. For example, Juhola et al. (2011) examined policy documentation via interviews with practitioners at local and national governance scales in the UK, Sweden, Finland and Italy. Through this they identified four frames influencing understandings of 'adaptation', issue definition and, in turn,

policy development. These were 'planning', 'economic risk', 'vulnerability' and 'existing measures'.

Relevant to the present study's country contexts, it was suggested that climate change adaptation policy in the UK, an early leader on adaptation, largely employed planning and economic risk frames. The former concerned the integration of adaptation considerations into the planning process across levels of government, and the latter targeted the reduction of future projected costs which would stem from climate change alongside societal vulnerabilities, and this was a common feature in UK environmental policy overall.

Meanwhile, Sweden was not as quick to adopt adaptation-specific policies despite being a 'traditional' leader in the environmental policy arena (Juhola et al. 2011:448). In terms of framings, a vulnerability frame emphasising climate-related risks and impacts upon society was found and attributed not to a top-down approach as in the largely centralised UK system (although 'planning' is a local function; Garland et al. 2023), but rather as having been influenced from the local municipality level where extreme weather and flooding experiences were held, and so vulnerabilities felt. Hence, the subsequent national-level frame adoption. Also at the municipality level, an existing measures frame was found which pursues existing policy practice with potentially indirect benefits for adaptation (Juhola et al. 2011).

For Juhola and colleagues' (2011) policy context, framing was conceptualised in stages beginning from the narrative, where storytelling introduces an issue into policy arenas, and ending in normalisation with frames becoming institutionalised and an accepted way of approaching an issue. Between these, modelling, understood as further hypothesising around a narrative, and canonisation, whereby the persuasiveness of modelled narratives resonates with policy-makers, were also presented.

Elaborating upon the former, modelling has also been discussed as involving two core features which are simplifications of societal and natural systems, alongside further specification regarding normative principles (Miller, 2000). Speaking to environmental and climate themes alongside the four stages in frame production and acceptance, Miller (2000) expressed how framing can draw upon a wide range of inputs from numerous sources. Beyond this, how frames can alter over time while remaining 'historically and culturally-situated norms and practices' was noted (Miller, 2000:212). Indeed, it has been argued elsewhere that place characteristics, whether geographical, cultural and/or economic, can influence frames within certain contexts (see also Lyth et al., 2016).

That said, acknowledgement of how multiple different frames and framing processes can be simultaneously ongoing in a society exists, and so frames may be contested along the lines mentioned by McEvoy and colleagues (2013). Of further interest, US climate frames in the 1970s have been linked to implications regarding how Nature was depicted and what actions to address the primary issue framing were subsequently advocated for (Miller, 2000).

Here, Nature was conceived as something to control, as well as an entity which poses limits upon the potential extent of economic growth, with various policy prescriptions including technological innovation, management, decarbonisation and adaptation efforts found. Within this, Nature was further portrayed as both a threat to human society and as threatened by the latter under two different framings. Regardless of this difference, however, under both Nature was termed as an 'Other' (Miller, 2000); as an entity delineable from society.

There was therefore a degree of human-Nature detachment remaining in these observed frames, although this was not elaborated upon by Miller (2000). Linkages could be drawn with Chapter Two's discussions concerning notions of landscape which define society and Nature as Others to one another. Indeed, this is a theme developed in a later section which offers additional conceptualisation using insights from Touraine and Latour.

Before this and to summarise, framing is an ongoing process of meaning-making actively engaged with by a range of actors with differing influences or motivations. The outcomes can also be diverse as a result. However, while frames may be significant to movements in various ways and to various ends, they cannot be deemed as the only important feature of movements (Snow et al. 1986). Hence, framing should arguably be considered in combination with other social movement theory strands which can help point towards additionally important features. Nevertheless, framing is significant and framing processes will now be placed in relation to visuality and the image which emphasises their commonalities.

4.3.1 Visual Framing

To begin, Aklin and Urpelainen (2013) highlighted a few general findings within the climate communication literature they reviewed, including that: climate change-related frames were more effective when they tap into people's personal experiences; that the consequences of climatic shifts were perceived as issues of the future and not of the present; plus that more negative framing is liable to reduce individuals' willingness to act in address climate challenges (also Chapter Three). The use of particular frames was deemed, therefore, to be subject to important strategic decision-making by framers, including since the same claim can be framed in different ways to differing effects (what the authors note as 'equivalence framing'; Aklin and Urpelainen, 2013:1226).

In these ways, similarities in the core arguments and suggestions of framing scholars in the climate field align closely to those of their visual studies colleagues. Indeed, Snow (2007) noted that frames can be found within a range of SMO materials including placards and leaflets, although others maintain that written and spoken texts are and should always be the predominant source and medium for frames (for instance, Johnston, 2002). By extension, therefore, movement visual representations more broadly defined can be understood to hold framing potentials by incorporating similar themes to those detailed in the preceding section.

To elaborate, it has been noted that frames can highlight certain elements of a scene over others, or exclude select features altogether; resulting in a presence-absence dynamic discussed previously with regard to images (Gariglio, 2016). Any absence can be specifically created within an image, just as with textual frames. Here, the purpose can be to broaden the appeal to an audience including through the frame alignment processes of Snow and colleagues (1986). In so doing, this presence-absence relationship was reflected in Snow's account of frame elaboration, defining it as 'the process in which some events, issues, and beliefs or ideas are accented and highlighted in contrast to others…perhaps coming to function as significant coordinating symbols or mechanisms' (2007:400). In the latter part of the passage, perhaps such symbols could be produced through iconic climate imagery well-represented by photographs of polar bears, ice sheets and drought (Chapman et al. 2016; Manzo, 2010b; O'Neill, 2019).

Regardless, these points demonstrate that, like images, frames provide materials through which to interpret events, people or issues while further speaking to certain values or beliefs. Frames are therefore conceptual, interpretative lenses presenting standpoints on aspects of the world.

They promote particular readings and understandings of reality and how it can or should be engaged with through behaviours in relation to systems of values or norms (Cress and Snow, 2000; Snow et al. 1986). Again, this is much like the image in its function as both interpretative and interpreted material within the visual study literature (Rose, 2001). Moreover, as Goodwin and Jasper (1999; amongst others) noted, movement frames can be received differently by different audiences and thereby result in a variety of outcomes, similarly to images as a communicative medium (Rose, 2001). They both hold a contestability with the addition that frames and images can likewise compete against others to promote particular representations of reality; extending also to master frames (Diani, 1996).

Additional overlap between framing and more image-centric studies concerns diagnostic and prognostic framing. The former, to recall, concerns issue identification and definition while the latter defines solutions to the issues (Cress and Snow, 2000). These were captured well within Baele et al.'s (2019) visual study of Islamic State's published materials. As Chapter Two discussed, the authors considered how the images contained within these materials fed into identity construction which framed the 'we' and the group's central aims as the solutions to the defined issues. Through this, the group juxtaposed themselves against others who formed a problematic out-group responsible for the challenged issues. Indeed, by adopting the same diagnosis and prognosis framing types as Cress and Snow (2000), Baele and colleagues (2019) highlighted the intertwining of frame and image as communicative representations relaying representations of the world and the actors within. The research therefore indicated how important framing themes can be examined through image-oriented research, extending beyond oft-studied textual frames.

Additionally, Goffman (1974) provided an avenue linking frame analysis to the social aesthetic via the reflexivity aspect of frames. To elaborate, both relate to individual's mental and physical activity alongside the materiality of a scene (perhaps, 'landscape'). Important also however were the ways of viewing involved in its interpretation and, in turn, actor behaviours in response to an event. It concerned the manner in which viewing is performed, maybe as a detached appreciation of culturally idealised pastoral or wilderness scenes, or possibly a place enacted through the body. As Goffman put it, the 'frame incorporates both the participant's response and the world he [*sic*] is responding to, a reflexive element must necessarily be present…a correct view of a scene must include the viewing of it as part of it' (1974:85).

With these comments, the purpose was to emphasise the areas through which visual analyses and framing theory are conducive to one another. The intersection between them is held here to represent potentially fascinating avenues for exploration with particular regards to the construction (read framing) of Nature through visual mediums. In the above ways, therefore, numerous linkages between framing in social movement theory and the visual studies-oriented literature of Chapters Two and Three can be made. It suggests further the importance of the image, including as an intriguing locus of framing processes and their subsequent effects or affects upon audiences.

Linking to RM perspectives, frames can thereby be useful where images are tailored to audiences to access resources, like financial donations and protest participants (amongst others, Jasper and Poulsen, 1995; McCarthy and Zald, 1977). Beyond this, however, through focusing on master frames visual materials could provide one means by which dominant cultural norms could be reproduced or challenged. This process, which shall be developed through the following sections, relate closely to Diani's (1996) conceptualisation of anti-system or realignment frames; both seeking fundamental transformations to a polity. The latter is further based on new collective identities, maybe incorporating revised human-Nature relations in so doing.

Shifting the focus onto frames within visual representations thereby also contributes to an extension of this scholarship; it moves beyond the predominant emphasis placed on framing through written texts. Such an approach holds the potential to couple framing theory with visual studies, with some of the commonalities already exposed. However, the present study intends to build further in order to consider master framing surrounding Nature, and how this is possible through imagery. Consequently, the discussion shall turn towards a number of complementary insights from two particular sources.

4.4 Social Conflict over Nature's Bifurcation

Indeed, while social movement theory and its various strands, including frame-related aspects, are important for this research, a further interest is also held in bringing into closer conversation the ideas of Alain Touraine and Bruno Latour. The contention here is that, by bringing these two together a more 'critical' conception of environmental and climate movement framing could be gained; analysing movement imagery against this. This conversation thereby gave rise to hypotheses around whether and to what extent this movement may be engaging in a fundamental reframing of Nature away from landscape conceptions through the construction of an alternative master frame.

The point of departure can be found in notions about the bifurcation of Nature following the logic of Descartes (Morton, 2007; Wylie, 2007; see Chapter Two). Specifically, of *res extensa* as the material and external substance on one hand, and *res cogitans* representing the more privileged internal cognitive element on the other. For Latour (2008a) and others, this separation of the material and cognitive, the human and the natural, is perceivable as a false construct. Yet, through its portrayal as 'matter of fact', it promotes an objective understanding of Nature which contrarily remains abstract to lived experience. In rendering issues as matter of fact, they are taken to be unquestionable with 'Nature' thus rendered as external and objectively knowable (Latour, 2008a; Latour et al. 2018).

In this light, Latour suggested that a matters of fact conceptualisation of humans and Nature divides the two. As a consequence, the latter becomes an agency-deprived object, entrenching an artificial bifurcation which narrows the scope of how these 'objects' can be seen, understood and interacted with (Latour, 2008a). Indeed, this was introduced in the previous chapter with regards to the agency-stripping effect of a Western landscape construction on Nature and those who inhabit certain places (Brígido-Corachán, 2017; Cronon, 1996).

Continuing with Latour's matters of fact, these too were seen as not providing a comprehensive account of reality nor everyday lived experiences. Instead, matters of fact were considered as partial abstractions from these (Latour, 2004). This led to an important point that a wider 'assemblage' comprised of a myriad of connected entities exists around matters of fact; these requiring greater recognition as what Latour (2004, 2008a) termed 'matters of concern'.

By acknowledging matters of concern, the idea was to render the visible in a different light to draw attention to interwoven webs of relations and dependencies. This was again deemed to

hold greater potential regarding understanding entity interactions and everyday experiences compared to abstract and partial renderings offered by matters of fact (Latour, 2008a).

This matters of fact and concern distinction was well-illustrated by Latour (2008a) through reference to theatres where the stage serves as the former where what is seen does not reveal all that feeds into and influences (and is influenced by) matters of fact; namely, the off-stage items and their organisation that represent matters of concern. Matters of fact were therefore deemed abstract through how they preclude recognition of the diverse interconnectedness informing everyday existence; with this argued not to be the case for matters of concern.

Following this logic, Nature should not be excluded from understandings of human activities and everyday lives, but rather understood as an intimately connected part of numerous matters of concern. The claim has therefore been made that society as a concept should be defined beyond a human-only focus since it is 'necessary to associate with others in order to remain in existence' (Latour, 2008a:16; also Latour, 2011). In this sense, natural entities could be subsumed under 'society' as necessary associates.

Touraine (1980) has meanwhile argued against a dominant focus on society, placing emphasis instead on social relations; incorporating power and conflict dynamics between actors. Under this view, society distinguishes between actors and social systems such as laws, pushing attention towards states and institutions as entities that maintain and organise any given society (Touraine, 1980). Moreover, it was claimed that society as a concept is unable to capture individual or collective efforts to achieve self-determination.

Relatedly, in the context of a perceived and increasing separation between the state (economic, rational, objective) as an ordering force, and the cultural (subjective), Touraine (2002) discussed how a state's organising power over society has diminished. As such, the locus was placed upon individual actors as 'the only central principle of moral judgement' following the emergence of different, potentially conflicting, identities (Touraine, 2002:389). This thereby helps in 'reducing what is referred to as "society" to a network of social relations between actors who are involved in conflicts about the social and political control of cultural resources' (Touraine, 1980:6); the latter incorporating imagery (Chapter Two).

Indeed, accompanying these viewpoints was the notion of society as an 'event' rather than as a permanent, static phenomenon. It is through social conflict, Touraine contended, that social relations come to the fore and are altered over time, shaping and producing what could be

thought of as society (Touraine, 1980). It is here where the discussion is able to branch into social movements more directly.

Although Touraine (1985) detailed many possible types of movement, each with its own foci, potentials and limitations, the present study's interest study is placed on movements as representing these social conflicts. This relates especially to conflicts over the control of cultural patterns, comprising knowledge (truth), investment (production) and ethics (morals) (Touraine, 1985). Importantly, given involvement in social conflicts over cultural patterns, a movement has been defined further as contributing towards 'a specific mode of constructing social reality' (Touraine, 1985:749), and so a master frame linkage exists.

Elaborating for a greater focus on individual actors, the point has been made that they are not wholly determined by societal norms but could be seen as the 'agent of transformation of his [*sic*] environment and his own situation, as a creator of imaginary worlds' (Touraine, 2000:900). Here, the discussion begins to move towards consideration of the 'Subject'. The Subject for Touraine (2002) represented a search for self-identity and meaning-making around experiences, juxtaposed against the self which remained under the influence of social norms (Rebughini, 2014). There is, put differently, a split within the individual with one part less integrated into society and the other strongly situated there; both being in tension with one another (King, 2006).

Touraine (2002) discussed this in terms of the Subject's situatedness between cultural and economic spheres, and thus between individual expression vis-à-vis mass consumerism and media which are resisted. Attempting to bring the two spheres together in everyday life, the Subject was found to frequently fall short under Touraine's (2002) conception. Nevertheless, in moments when individuals become less integrated within society, and so become akin to the Subject, they are in a position to challenge dominant social discourses and relations which otherwise dominate the self, including through the development of social movements (King, 2006).

While attention has been given to the role of the individual actor and their self-determination or identity claims, it has been argued that the role of emotions within this has been underdeveloped (contrasting, for instance, with Melucci's rendering of identity processes, movements and embodied emotion; see NSM above, also Rebughini and Scribano, 2018). This remained true for King (2006) who subsequently attempted to situate emotion within

Touraine's general framework. To do so, the author centred efforts upon the Subject in relation to Australian activists.

Focusing on reflexivity, King (2006) noted how it was particularly through emotionally reflective practices via a form of counselling that these activists became capable of identifying how they had challenged 'hegemonic constructions of the world' as Subjects (King, 2006:873). Such hegemonic constructions could be perceived as master frames. King's (2006) insights here were gained through nine interviews with activists, plus the researcher's direct involvement in an introductory counselling course.

4.4.1 Touraine and Latour

Taking the above into consideration, imagery could itself be framed as a medium through which alternatives to dualistic human-Nature relations could be presented. Since for Latour the division between the representation (the internal or the human) and represented (external, natural) was artificially developed through visual art and conventions (Latour, 2008a; Latour et al. 2018), it could be suggested that the visual medium might also be involved in the opposite process as well. Namely, of attempting to go beyond human-Nature distinctions via a reconstruction or reframing of these co-dependent actants. In so doing, this reframing could provide a means by which to 'cope' with the complex, multifaceted and wicked issue of climate change (Latour et al. 2018:7; Chapter Two, Three). For Latour (2014; Latour et al. 2018), the external and internal – Nature and society – were conceptualised as fundamentally combined and co-constituting; as an interweaving of humans and a sovereign Gaia.[11]

The idea was of the natural as an active subject, both subjecting and subjected by others (and by selves through the consequence of one's own actions) reciprocally through the sharing of agency. To be a subject in this sense, however, is to have dependence since it is 'not to act autonomously in front of an objective background' (Latour, 2014:5; recall Milkoreit, 2017; Chapter Three). To get to this point, Nature can be perceived as one of these active, 'animated' subjects and so recognised as possessing and sharing a form of agency; becoming an actant in its own right (Latour, 2014; Latour et al. 2018; Chapter Two).

It was in this sense that calls for agency to be distributed to non-human entities, realised as actants, were made for shifts away from dualistic ideas including notions of reconciliation (Latour, 2014; as part of a 'cosmology', Latour et al. 2018). Dualisms would arguably not hold

this distributive function and instead focus predominantly around human actions upon and towards Nature as a separate, de-animated entity.

Through transforming 'matters of fact' into 'matters of concern', therefore, actants like Nature become subject not to dichotomous claims of whether their existence is unquestionable or not, but rather open to debate over quality. This is what Latour captured with reference to design where the question was how to improve upon existing objects and whether re-designs have (potential for) desired effects (Latour, 2008b; see also a related script-writing metaphor, Latour, 2011).

To re-design around the climate would be to develop away from the 'New Climatic Regime'; first recognising then necessarily supplanting old ill-equipped institutions by centrally introducing human-non-human interrelations (Latour, 2018; Latour et al. 2018). These could nonetheless recognise Nature's aesthetic beauty alongside its agential characteristics (Merriman et al. 2008; Chapter Two). Such a normative reproduction of society along the lines of Latour's thinking around the New Climatic Regime would seem then to reflect some of the tenets of what Touraine (1985) speaks of as a conflict over cultural patterns.

However, among Touraine's reflections the idea of (possibilities for) a new society is also tackled. Oriented towards claims of a new, informational or 'programmed' society, the argument was that this societal shift should 'be defined more strictly by the technological production of symbolic goods which shape or transform our representation of human nature and the external world'. Touraine continues, 'Only the organization of new social movements and the development of different cultural values can justify the idea of a new society' (Touraine, 1985:781).

Here, then, by adopting the ideas espoused within these passages it is suggested that imagery as material, symbolic representations could serve as such goods which may transform existing conceptions. This could be proposed yet further where visual representations of Nature within images form part of a conflict in which movement actors adopt and visually disseminate a different rendering of human-Nature relations, contesting dualistic cultural constructions of Nature like landscape (Chapter Two).

Indeed, for Touraine (2000) the 'highest' form of struggle focused not upon ideological aspects but demands which are not wholly negotiable; they concerned fundamental and 'non-social' issues underlying society's organisation. Justice and dignity were provided as examples, but perhaps consideration is extendable to climate (in)action. For Melucci (1996), this non-

negotiable aspect concerns demands on a symbolic as opposed to technical level. In such a way, it is conceivable that change in cultural patterns is possible by Subjects who challenge societal norms, placing within individuals an agency to transform surrounding contexts and express that which is experienced, whilst further forming sites of resistance to societal pressures (King, 2006; Touraine, 2000, 2002; also Latour, 2011).

As Touraine noted, 'We are no longer distinct from our creations, any more than the situations that we experience can be defined without the action that we have on them' (2002:391). Following this, linkages to climate change would seem to exist; to understandings of human causes behind climatic shifts and environmental degradation with subsequent impacts upon humans (also Milkoreit, 2017). Intimate connections between people and, in Touraine's words, their creations or situations, could then be perceived in conjunction with the writings of Latour.

Certainly, Melucci too could be drawn upon through rendering of social movements as 'networks entrusted with potent cultural meanings' (1996:4). Indeed, reality itself was conceptualizable as a cultural construct; the meanings and representations around which serving 'as filters for our relationship with the world' (Melucci, 1996:7). For the present study, such representations based in cultural constructions inform experiences of the world and are suggested to be reflected within images. Symbolic production is significant here, and Melucci underlined the importance of media, including the image, as mediums 'through which the mental, sensory, and emotional perception of the world is altered' (1996:360).

Finally, in a manner not dissimilar to Touraine, processes of social production underpinned by social relationships and (natural) resource use 'always transforms Nature into Culture' (Melucci, 1996:46). The natural world is thus not immune from behaviour-influencing cultural constructions along the lines so far discussed; with these potentially exerting negative effects upon the environment. Put differently, and congruent to the Touraine-Latour meeting presented here, social movements represent a challenge or shift against existing social relations which contain cultural constructions informing behaviours which may be detrimental to Nature, and so of concern for the environmental and climate change movement.

By bringing these two authors into conversation alongside others, it is possible to reach a point from which a hypothesis can be suggested: that imagery could facilitate challenges to existing cultural patterns where these patterns represent a matters of fact perspective which reinforces the bifurcation of Nature. The general conception and importance of imagery should be recalled here also.

Indeed, one weakness within the environmental movement perceived by Latour (2018) was that dualistic notions of an external 'Nature' and matters of fact are often adopted (also Latour et al. 2018). They are consequently unable to extend beyond it as part of – in Latour's terminology – a shift towards matters of concern involving a deep re-designing of relations and the subsequent emergence out of the New Climatic Regime, with the supplanting of artificial bifurcation, new values and new socio-political and economic organisation.

This is proposed here as an interesting, and perhaps more critical, addition to an approach combining framing, movement and visual study perspectives. In adopting insights from Touraine and Latour in conjunction with each other and the other scholars considered, a further question could be postulated. Specifically, it asks what the form, content and consequence of visual frames could be regarding the (non-)delineation of agency between Nature and humans. Put differently, this additional theory-driven query reads: *To what extent could the cultural construction of Nature as 'landscape' appear to be reproduced within the movement?* In this way, the presence of the landscape master frame could be investigated in terms of the imagery itself and through movement members' receptions to it.

One way in which such a challenge or re-imagination of human-Nature relations could be visualised was suggested by McNally and De Andrade (2022) who focused on young people's constructions of Nature and related interactions within a popular video game. The authors noted how while many of the themes created in these virtual environments reflected existing approaches to environmental and climate challenges (such as renewable energy), human society, consumerism and leisure were all placed in closer proximity to allotments and beehives, for example. It was subsequently suggested that these positive visualisations of future environments and their increasingly interconnected human-Nature relations may provide spaces to reflect upon how Nature could be perceived beyond being a detached, usable object (McNally and De Andrade, 2022). In other words, the presentation of existing activities placed in a more intimate relation with Nature could challenge landscape-esque dualisms through images. The idea of the reflective and potentially behaviour-inspiring power of future climate imaginations was therefore shared with Milkoreit (2017).

Similarly, fostering greater human-Nature connectedness was proposed as a solution to reduce environmentally degrading practices which stem from Nature-commodifying and detaching values systems like that of landscape (SEI and CEEW, 2022). While appreciating Nature's aesthetic beauty still holds a place within this connectedness, sensory and emotional

engagement have nonetheless been stressed (SEI and CEEW, 2022); thereby reflecting ideas of embodied engagement discussed in Chapter Two.

With these points in mind, then, how far could movement imagery reflect these efforts and are they doing so? The focus in short becomes how visual framings of Nature through imagery could be part of a master frame construction aiming to surpass human-Nature dualisms within a social and symbolic conflict over cultural practices and associated values.

4.5 Chapter Conclusion: Framing Through Imagery

To reflect on this discussion, it is clear that social movement theory represents a significant body of literature. Within this, scholars have highlighted a myriad of factors exerting influence over movement activities, goals and chances for success. Nevertheless, numerous critiques accompany this literature and its three core strands of Resource Mobilisation, Political Opportunity Structure and New Social Movement approaches. Notably, claims of structural bias have been proposed, particularly regarding RM and POS. Whilst also criticised, there have been additional efforts to incorporate another feature into accounts of mobilisations; and namely that of framing.

Framing as a notion broadly concerns meaning-making processes through which actors define the world around them and their position within it in relation to others. Consequently, produced frames can feed back into and influence actor identities and behaviours while remaining open to challenge from other framings. This is also not necessarily a neutral process, but can be actively pursued by actors through frame alignment procedures which can attempt to speak to, and perhaps challenge, a wider master frame held within any given society.

Through this framing aspect, this chapter had linked discussion with insights from the visual studies area presented earlier. In so doing, the points of overlap and complementarity have been highlighted and questions regarding movement visual frames have begun to be drawn out. Chief among these was that concerning the extent to which climate and environment-related groups may be engaged in re-framing dominant cultural conceptions of human-Nature relations; thereby challenging a dualistic master frame well-reflected by ideas of landscape (Chapter Two). To reach this point, and to further explore further human-Nature bifurcation, a conversation was instigated between Touraine and Latour concerning movements and the environment.

The human-Nature bifurcation discussion that ensued consequently linked back to the landscape-associated literature and thus to cultural notions of Nature through dualizing, objectifying and aestheticizing frames. Turning attention directly towards these dualistic framings and how they could be open to challenge by movement actors has in turn been advanced as an important research focus. Extending upon this, it could be suggested that the (Western/European) Enlightenment era landscape-style dualism frame, segmenting Nature away from society, plus any ensuing influences on the possible interactions between them, serves as a historically and culturally-situated master frame.

Hence, therefore, the query concerning whether such a framing of Nature and human interactions could be – or indeed is being – challenged by the environmental and climate movement. Understanding once more the sociological interest and relevance of imagery, the potential for this challenge and re-imagined human-Nature relations thereby comes to the fore in this study of movement groups' visual representations. How these numerous yet intertwined elements have been approached by this research will now become the focus of attention, beginning with case selection.

5.1 Introduction

Redirecting attention from theory towards a consideration of methods, the present chapter shall cover case selection. Firstly, the country contexts from which specific movement groups were drawn will be noted. Next, the typology informing the selection of these groups will be discussed with reference to the social movement literature. Its use will be advocated based on its potential to support a comparative study into movement imagery regarding Nature representations and their reception at the individual-level. Put differently, the typology facilitated the development of a response to the three guiding research questions set out earlier, as well as to the theoretically-driven enquiry of the previous chapter. It is the countries used for group identification that will now be considered.

5.2 Country Contexts

While case groups were the central focus for this study's comparative element, these were identified across three different countries: the United Kingdom; the Netherlands; and, Sweden. Existing literature concerned with environmental and climate themes have discussed a number of different experiences within these nations. Specifically, it has been discussed how the UK was an early adopter of climate adaptation policies, but with general framing reflecting planning and economic value concerns (Adger et al. 2005; Juhola et al. 2011). Mainstream media images of climate change in the UK have also relevantly been studied, revealing contestation and distancing frames (for instance, O'Neill, 2019; see Chapter Three).

Sweden, meanwhile, was seen to adopt adaptation policies only after local-level calls for national government action following direct experiences of disaster events, resulting in a vulnerability framing being dominant (Juhola et al. 2011; Nilsson et al. 2012). Nevertheless, Sweden has typically been considered to be a leading country for general environmental policy (Juhola et al. 2011). Lastly, the Netherlands has longstanding traditions of accessible, consensus-based decision-making around the environment, with this referred to as 'poldering', as well as climate frames extending from generic references to worst-case scenario presentations (Van Stekelenberg et al. 2012; Vink et al. 2013). It could also be noted that Extinction Rebellion (XR) began in the UK and Fridays for Future (FFF) in Sweden in 2018

before they both became international presences, including in the Netherlands (Hayes and O'Neill, 2021).

Although these institutional differences exist, they are all European contexts which provided a way to investigate the continued existence of an Enlightenment-derived cultural framing of Nature as landscape and human positionalities towards it. Indeed, studies have underlined the interpretation and valuing of Nature along landscape lines in the Dutch case, for instance (Buijs et al. 2009; Van den Berg and Koole, 2006). By extension, examining movement visual communications around Nature within these similar contexts allows investigation of master frame reproduction, challenges and, importantly, implications for environmental and climate-damaging practices. This is therefore in line with the conceptualisations developed over the previous chapters.

In short, these countries were relevantly studied by existing literatures which can in turn be spoken to. Crucially, they also share a historically dominant landscape lens over which conflict towards an alternative to the New Climatic Regime could be made by movement actors. While such a cultural construction may be shared in other European states, these countries further opened up research opportunities through the existence of directly comparable movement groups and their mobilisation, plus generally high levels of English language ability; such data availability considerations also being important to make (Yin, 2014). It is for these reasons that comparative groups and their Nature-related visual materials were selected from these counties.

As later chapters propose, future studies may wish to centrally place country-level comparisons of visual frames across similar and different contexts (Klandermans and Smith, 2002). POS-based considerations of the potential influence of different institutional structures may also be of interest and value to further literature development, drawing on the work of scholars such as Kousis (2007) and Kriesi et al. (1992), for instance (Chapter Four). Before such suggestions, however, the primary group-level case selection will be discussed.

5.3 A Typology for Environmental and Climate Movement Groups

The table below presents the typology used for categorising and identifying environmental and climate movement groups with the view to conducting a content analysis of the Nature imagery they share and produce. This typology thereby served as a sampling frame facilitative of a comparative study of the movement actors of interest (Klandermans and Smith, 2002). The present section therefore explores the typology and provides the reasoning behind the inclusion of certain SMOs.

Table 5.1: Typology for Environmental and Climate Movement Groups

		Institutionalisation	
		Higher	Lower
Radicalism	Higher	*Reformers*	*Radicals*
	Lower	*Conservationists*	*Demonstrative Outsiders*

The two characteristics along which classifications were organised concerned degrees of institutionalisation and radicalism. 'Institutionalisation' was defined as the extent a group could be seen as a professionalised, bureaucratised organisation, possibly with formal links to national governments ('insiders', put differently). 'Radicalism', by contrast, concerned levels of engagement in 'non-conventional' protest actions including direct action.[12] Following the social movement literature (Earl et al. 2003; Koopmans and Rucht, 2002), such actions contrast with litigation, press releases, petitions and lobbying (namely, 'conventional' protest; Koopmans and Rucht, 2002; Rootes, 2003). Limited or absent ties to national government authorities (an 'outsider' status) could further be suggested with greater radicalism, recalling POS claims around inclusion prospects and movement responses, for instance (Chapter Four). Following this classification, four main group types were returned: Conservationists; Reformers; Radicals; and, Demonstrative Outsiders.

These distinctions well-reflect social movement study discussions (Saunders, 2012). In this literature, three 'waves' of environmentalism have been identified. First, 19th Century

conservationism centred on protecting and preserving Nature (the 'Conservationists'). Then, the 'new' environmentalism represented by Greenpeace and Friends of the Earth (FoE) from the 1970s, focusing more on industry impacts like pollution with aims of incremental revision to existing practices (the 'Reformers'). Finally, a more radical strain of environmentalism emergent from the 1990s (the 'Radicals'). In the UK, for example, this third wave was marked by Earth First! (EF!) and anti-roads protests which saw calls for fundamental, not incremental, system change (Saunders, 2008, 2012, 2013).

This latter wave was directly juxtaposed to that which preceded, often understood 'as a response to the institutionalisation and consequent taming of 'new' environmentalism' (Saunders, 2012:831; read also, 'domestication', Doherty et al. 2007:805). This involved limitations to possible participatory practices within Greenpeace and FoE, including a shift towards minimal 'cheque-book' memberships. Accompanied by formalised lobbying practices in which Reformers worked with private business, increasingly bureaucratic decision-making processes were also developed (Doyle, 2007). Shifts in membership structures, from which a large part of their funding originates, have moreover been suggested to influence campaigning activities; leading to an orientation towards issues with broader popular appeal and higher likelihoods of success. This relates, therefore, to the active protection and maintenance of a carefully curated public image and 'brand' reputation (Saunders, 2007c; with similar observations made more recently by Janotová, 2022, with the idea of a 'PR-isation' of movement groups).

Indeed, some – but not all – Radicals have been noted to consider Reformists as legitimising governments and businesses deemed complicit or complacent in environmental degradation through partnerships with them (Saunders, 2008). Certainly, a much-reported criticism is that of organisational encumberment since, when threated with legal action from the state in 1992, FoE departed from the UK anti-roads protest camp at Twyford Downs and left Radicals to continue in the absence of their support (Saunders, 2007c, 2008). As Melucci (1996) and this case suggested, one feature of the shift to a bureaucratic organisational structure is a predilection for actions which preserve the group. These organisational points concerning FoE's professionalisation (bureaucratisation) and image defence can be said of Greenpeace, too (Saunders, 2007c, 2013).

In the UK, Reformers' institutionalisation has been related to the nature of the political system which, through central authorities' 'bureaucratic accommodation', has exerted a constraining

effect over the radicality of SMOs like Greenpeace and FoE (Rootes, 1992:183). Under Rootes' account of British exceptionalism – one challenged by the Radicals' emergence in the 1990s – more integrative than confrontational-oriented strategies were encouraged as Reformers became 'wary of jeopardizing the political influence that they have secured as a result of years operating within the system' (Rootes, 1992:183). Hence, then, their higher degree of institutionalisation compared to Radicals. While Reformers still partake in protest, including direct action, this is arguably tempered by their desire to retain formal access and broader public appeal, as the FoE anti-roads case helped to demonstrate.

By contrast, Radicals commonly emphasise (although do not necessarily achieve) non-hierarchical, autonomous organisational forms alongside confrontational, non-violent direct action protest techniques. These protests focus not only upon governmental and political actors, but also target companies and industries which are seen to be among the leading contributors to environmental harm. Radicals often position themselves in opposition to what are perceived as environmentally damaging economic systems (namely capitalism, neoliberalism) which are framed as requiring significant change or complete dismantling, with additional requirements for grassroots engagement and lifestyle alterations (Doherty et al. 2007; Saunders, 2008, 2012).[13] The call is thus for system change extending beyond gradual reforms pursued by Reformers in a manner more akin to Touraine's (1985) conflict over cultural patterns or Diani's (1996) anti-system frames (Chapter Four).

Meanwhile, Demonstrative Outsiders have not yet been reflected within this movement literature as forming another, specific wave. It is suggested here, however, that groups such as Fridays for Future (FFF) which are distinctly youth-led could be seen to represent a fourth 'wave' in the environmental and climate movement; one distinguishable greatly by participant demographics which are largely younger, first-time activists (De Moor et al. 2021). With FFF starting in Sweden in 2018 following Greta Thunberg's lone protest against climate inaction and intergenerational justice issues (Hayes and O'Neill, 2021), they are not bureaucratised 'insider' groups and so possess a lower level of institutionalisation similarly to Radicals (hence 'outsiders').

In terms of actions, the emphasis has been placed upon school strikes and demonstrations (hence, 'demonstrative'), and less so upon radical protest repertoires incorporating direct action. Resultantly, they do not share a higher degree of radicalisation like Radicals, or even Reformers which partake in a broader range of actions. This accounts for their position within

the typology, and their identification as a more recent and relevant movement group type for inclusion in this study.

This does not preclude, however, the possibility that groups belonging to this type will not evolve to adopt more 'radical' protest repertoires. Indeed, one example of this that occurred after the original data collection for this research followed Greta Thunberg's calls for protest participation against a coal mine in Germany in January 2023. This participation later resulted in her being carried off by police in riot gear who temporarily detained her during an occupation of the industrial site (Ferguson, 2023; Reuters, 2023).

Certainly, while the typology adopted defined Conservationists, Reformers, Radicals and Demonstrative Outsiders as distinct types, it is acknowledged too that overlaps can exist between them. For example, they are not necessarily mutually exclusive regarding campaign foci and protest methods, and nor are cross-memberships or affiliations impossible across types (Saunders, 2007c, 2012). They nonetheless demonstrate variation in organisation, participation and similar, and so could be distinguished from one another while retaining the understanding that they arguably fall under the broad environmental and climate movement umbrella; as parts of a whole (Durkheim, 1964[1915]). As Saunders (2008:232) stated, regardless of their respective identities or approaches, these groups crucially share 'the broader concern to protect or enhance the environment' (2008:232).

Considering these points further under the typology, institutionalisation could be seen with FoE and Greenpeace from literature discussions and from their status as registered charities in England, Wales and Scotland, for example. FoE, to elaborate, has its Charitable Trust similarly to Greenpeace's Environmental Trust. Conservationists like The World Wide Fund for Nature (WWF) and the UK's National Trust also fell along these charitable lines. This registered charity status was not held by groups possessing lower degrees of institutionalisation, inclusive of Radicals and Demonstrative Outsiders.

A complete listing of the 20 selected groups is presented in Appendix One, and some selections will be briefly elaborated upon here. While Fridays for Future as a prominent, internationally-present and student-led group was listed for the Netherlands and Sweden, the UK FFF group had little by way of an active online presence. As such, it was not suitable for data collection and so the UK Student Climate Network (UKSCN) was selected instead. This group was active online and shares FFF's issue foci, protest activities, age group(s) of involvement and the student-led nature. UKSCN thereby provided a viable and directly comparable UK-based

group alongside FFF within the Demonstrative Outsiders type. It has also been highlighted how FFF groups in different countries have adopted alternative names like UKSCN, although their actions, demographics and demands remain the same (De Moor et al. 2021), thereby underlining comparability.

For Radicals, EF! and the Dutch Groen Front! (GF!) were comparable, yet no similar group existed in Sweden. Moreover, data collection from EF! and GF! turned out to be limited. As a result, Extinction Rebellion, which represented a current, active and prominent Radical group within each of the case countries became the representative organisation for this type from each country. Like FFF, XR began in 2018 but alternatively in the UK before becoming international. Their actions, moreover, centre on direct action and mass arrest techniques with demands for state action on the climate crisis, including the establishment of a Citizen's Assembly to feed into policy-making (De Moor et al. 2021; Hayes and O'Neill, 2021). Given XR's prominence in each country and online, the absence of other Radical groups was not deemed problematic for type representation nor data collection. Difficulties in comparable group identification were not found with regards to Conservationists, and nor with Reformers.

Comments should be made regarding Conservationists' inclusion, however. They arguably differ from the other types through an absence of protest activities (including collectively with other groups), as well as through the lack of a driving claim, ideology, political stance and designated targets (Saunders, 2007a; comparing sharply to Radicals; Saunders, 2008).[14] Nevertheless, they are, firstly, concerned with matters of the environment and climate and, secondly, were held to provide an interesting point of comparison around the visual construction of Nature within and between the identified types.

Theoretically, if the suggestion holds that the environment and climate movement could be engaging in a fundamental reframing of Nature, then little congruence between the imagery of Radicals vis-à-vis Conservationists might be expected; assuming as above that Conservationists do not share this goal and fall outside of the climate movement proper. Relatedly, however, Melucci (1996) highlighted how movements are not necessarily as homogenous as assumed, but rather incorporate a diverse set of actors and potentially conflictual demands or ideas.

In this sense, any exclusion of Conservationists could hold greater detriment to the study of movement visual communication around Nature. This is since they do share the environment and climate as their central focus like the other group types. Furthermore, the comparative

potential just indicated exists, speaking directly to suggestions developed throughout the preceding theoretical chapter and remaining relevant whether Conservationists are deemed to be movement actors or not.

While the typology presented here was necessarily not exclusive nor exhaustive, and did not reflect cross-memberships or joint campaign possibilities (Saunders, 2012; also Melucci, 1996), it reflected existing literature. Specifically, it followed established classifications within social movement studies and was thereby held to aid in case group selection in advance of data collection. Breaking down the environmental and climate movement into key constituent types, based on distinctions grounded within the literature and group-specific characteristics, rendered it easier to undertake the study of this movement under the general logic that 'a whole cannot be defined except in relation to its parts' (Durkheim, 1964[1915]:36). Indeed, greater details around case groups and their types can be introduced later after typology development which necessitates initial simplification, with additional complexity reflected throughout ensuing analyses and data (Durkheim, 1964[1915]).

Certainly, numerous other groups and organisations could have been chosen. Those that were chosen, however, presented comparable (within and between types and countries) and accessible (available data) cases well-reflecting the radicalism-institutionalisation characteristics of the literature-inspired typology employed. Future studies may wish to investigate additional group types under a similar comparative approach, perhaps extending to political green parties. These were excluded here on the grounds that their 'success' contrastingly relates to electoral participation and gains, and how movement membership does not necessarily translate into green party support. This can further reflect electoral systems which, in the UK, results in a de-facto two-party system whereby green party votes can be deemed 'wasted' or non-'tactical' (Saunders et al. 2020; Rootes, 1992).

In these ways, sufficient differences between the typology categories and green parties were deemed present enough to allow the absence of the latter in the current study, as one example. How they balance or frame Nature in line with their policy platforms should could nevertheless be insightful and relevant, including against economic policies which often supersede environmental policy in practice (as seen around 'sustainable development', for instance; Giddens, 2011; Hajer, 1997).

5.4 Chapter Conclusion: Selecting Cases

To conclude this chapter, 20 movement groups were identified across three European nations. These groups were selected through social movement literature-inspired typology development with the addition of a fourth 'wave'. This typology reflected varying degrees of 'radicalism' (direct action participation) and 'institutionalisation' (bureaucratisation, government partnerships; Saunders, 2012). Four group types were consequently defined.

Conservationists, the first type, were represented by domestic branches of the WWF alongside comparable, domestically-centred organisations like the UK's National Trust. These groups related to the first wave of environmentalism discussed which focused predominantly upon the preservation of existing Nature inclusive of landscapes and biodiversity. Operating largely as charities and without protest repertoire adoption, they presented highly institutionalised and distinctly non-radical characteristics.

Reformers lied somewhere in-between Conservationists, with a degree of institutionalisation, and Radicals, with demonstration and direct action participation within their campaigning. This radicalism, however, is balanced against positive image maintenance which grants Reformers a certain amount of access to policy-makers and businesses, as well as a broader appeal to the public from whom they receive important funds through cheque-book memberships and donations. Traditionally, and with this research, Reformers were represented by Greenpeace and FoE. In addition to these, there were also *Radicals*; groups with low institutionalisation coupled with high radicalism that call for more fundamental changes, including through direct action. XR served as the primary and modern example for this type.

The first three of these types corresponded to distinctions made within social movement studies. The fourth type, *Demonstrative Outsiders*, was added to these to reflect more recent and distinctly youth-led climate groups represented well by FFF which were not present in literature discussions of environmental movement 'waves'. This final type retained Radicals' 'outsider' status, but without the same degree of radicality in adopted protest forms.

The case countries, meanwhile, reflected European contexts which have all been subject to relevant research and presented directly comparable movement groups for data collection and analysis purposes. They also allowed greater data accessibility on the grounds of lower language barriers and present different histories regarding environmental policy. More importantly, each was expected to share Eurocentric Enlightenment era cultural constructions

of 'Nature' which hold consequences for how Nature can be valued and engaged with; inclusive of environmentally degrading and climate-contributing practices.

More 'radical' groups may then be explored as potentially being part of an attempt to re-frame human-Nature relations through a shift away from this particular cultural construction of Nature, following Chapter Four's assumptions. The groups and countries thereby permitted investigation of the present study's additional query regarding the reproduction or critical challenging of landscape renderings of Nature in light of significant and contemporary environmental and climate crises.

With group cases identified from across the devised typology, attention turned to investigating the visual construction and communication of Nature offered by these groups. As a result, steps were taken in order to conduct an initial content analysis of Nature-relevant visuals shared through online movement platforms. This content analysis will now become the subject of attention throughout the next chapter alongside the later survey and interview approaches adopted.

Chapter Six: Methodology

6.1 Introduction

Having detailed the theoretical and case selection bases of this research, attention will be given to more specific questions of methodology. With this in mind, the present chapter will account for method selection and the reasons underlying these choices. It will also offer reflections around the experiences using these methods, extending to the ethical considerations made at each stage. The first method discussed in this manner will be the content analysis used to identify and code movement groups' Nature imagery. Following this, the survey and interview elements of this study will be considered in turn before remarks are offered in summary. In advance, however, it is important to return to the research questions guiding this inquiry and its methods.

6.2 Research Questions

To begin, therefore, the central research questions (RQs) of this project were as follows. Firstly, *what representations of Nature are communicated by environmental and climate movement imagery*? Secondly, *how far are identified image themes shared across movement group types*? Thirdly, *how is movement Nature imagery received by rank-and-file movement members*? As noted earlier, these questions built upon each other while extending the initial focus on the group level to the individual as well. In this way, they complemented the overarching effort to explore Nature's construction by environmental and climate movement actors, as well as how they resonated with movement participants. Put differently, the research was interested not only in what Nature-based imagery is created, used and shared by movement actors, but also how 'effective' or 'affective' such imagery could be for individuals.

The questions also linked to an additional area of interest developed within the theory chapter. Specifically, this inquired around the extent to which movement imagery could be understood as representing a divergence from longstanding Eurocentric notions of Nature as 'landscape', and perhaps as something more akin to Latour's (2018) reshaped socio-political organisation in response to the New Climatic Regime. Through this, different possibilities for approaching environmental and climate issues could emerge as a result of a redefinition of human-Nature relations. The question, posed in terms of a reproduction of landscape in both imagery and

member reception, read: *To what extent could the cultural construction of Nature as 'landscape' appear to be reproduced within the movement*?

These questions were relevant because they were designed to directly address a literature gap. This concerned limited visual analyses in, on the one hand, environment and climate studies and, on the other, social movement studies. In this way, calls for further visually-centred research in these fields were answered through examining the intersection of these two study areas; namely, visuals within environmental-oriented movements (see Hayes and O'Neill, 2021; McGarry et al. 2019; O'Neill et al. 2015; also Pearce et al. 2020). Focusing on environment and climate imagery, a further expansion upon existing studies is provided through its coupling with a movement-centred approach since much of this literature has continued to centre on mainstream media imagery alone (most recently, Hayes and O'Neill, 2021; but also O'Neill, 2019; Rebich-Hespanha and Rice, 2016, for instance).

Beyond this, current challenges concerning Nature, broadly conceived, are multiple and intersect with issues of human health, migration, policy, international relations and security, among others. This is relevant to climate change in general, but also to resource access, natural disasters and pollution of various kinds as more specific yet connected challenges. Gaining insights into the visual framing of Nature in light of this myriad of challenges, and how such images may exert different influences over people's ideas and actions, therefore grows in importance.

Moreover, this approach incorporates questions around the extent imagery may be involved in a shift away from perspectives of Nature which strip it of agency and render it as an objective entity or resource to use. Any such perspectives may support detachment, disinterest and reluctance to face environmental issues in favour of shorter-term economic benefits from resource usage, for instance. This is why it is interesting whether movement groups of different degrees of radicality and institutionalisation re-produce and/or critically engage with existing cultural constructions of Nature alongside associated value structures. If so, they could be expected to do this by aiming to re-define people's relations to Nature and, by extension, reimagining approaches to lessening environmental and climate degradation. In these ways, this research examines not only image content, but also explores the deeper cultural frames and value structures (namely, landscape) which could be embedded within objects such as images as bases for critique (Adorno, 1976; Huddleston, 2020).

With this in mind, attention turns to how these themes were investigated. Consequently, consideration will first be given to the content analysis – a popular approach within environment and communication studies (Mahl and Geunther, 2023), as well as other fields – through which identification of movement group imagery online was made.

6.3 Content Analysis

This method involves a systematic analysis of qualitative or quantitative data with the aim of developing generalised themes from across that data; each theme being understandable as 'an implicit topic that organizes a group of repeating ideas' (Vaismoradi et al. 2016:101). The initial focus is commonly placed upon the frequency by which certain features occur, informing subsequent coding and theme identification which can be theoretically-driven (Philipps et al. 2017; Rose, 2001). Such features have involved, for instance, the (dis-)proportional representations of different races, genders and employment locations within UK medical school-produced images with suggestions that the absence of greater diversity in such images constrains recruitment; contrary to their purpose as recruitment materials within school prospectuses (Macarthur et al. 2019).

The data does not have to be visual, however, but may be textual. This has been seen in social movement studies with a focus upon protest occurrence frequencies over time. Using one form of content analysis, namely a protest event analysis (PEA), the number of different protest types from litigation to demonstrations over eight years and across different locations has been studied (Garland et al. 2023). In so doing, it was suggested that changes in protest frequency and form reflected openness and closure in national and local-level POS. In this way, content analysis facilitated the production of an important empirical account of protest alongside critical theoretical development. This example differed from others, however, since developing a set of codes and themes was not the aim, but rather the event occurrence frequencies themselves (Garland et al. 2023; also Kriesi et al. 1995; Olzak, 1989).

Providing means to identify core themes through developing congruent codes across data, the content analysis stage of the current project drew upon movement social media. Certainly, social media alongside general internet access and digital technology development emerged and notably expanded from 2005, including through the ensuing 'mobility revolution' (AoIR, 2019:3). It is unsurprising, then, that social media has become a frequent source for data collection within the social sciences. It has also been noted as an important means for awareness

raising activities around climate change, including through image-sharing (León et al. 2022). Additionally, it may also provide a more equal space for visual narrative presentation and influence in contrast to the physical 'visual opportunity spaces' discussed by Widener (2022:542) which were dominated by large businesses such as oil companies and remained inaccessible to anti-oil activists.

However, while it remains a label applicable to many sites, 'social media' platforms are diverse and provide different possibilities and constraints for platform, content and between-user engagement (Pearce et al. 2019). The forms of engagement facilitated within each platform environment is relatable to their respective affordances, such as 'likes', 'retweets' (RTs), the #hashtag and @user functions (elaboration below).

As a result, Pearce et al. (2019:2) discussed each unique social media environment as exhibiting different 'platform cultures'. These should be taken into account by scholars seeking to employ social media to investigate various phenomena of interest (also Fownes et al. 2018). Among online platforms, Twitter, as a common site through which to study online communication, and Instagram, a less-studied and image-specific social media, were utilised for the study at hand (Pearce et al. 2019).

6.3.1 Social Media for Social Research

To elaborate on these, Twitter is a micro-blogging site which enables users to rapidly comment on and share material with others (Fownes et al. 2018; Yardi and boyd, 2010). Shared in a public forum, such material can be text, images, videos and links to third party websites. Certainly, Twitter is considered as a platform where users share and source opinions, information or news, including on real-time events in an environment where communication is fast paced and fleeting (Arvidsson and Caliandro, 2016; Hopke, 2015; Jang and Hart, 2015; León et al. 2022; Wang et al. 2018; Yardi and boyd, 2010). Membership comprises public and private individuals alongside organisations, government departments and similar.

Twitter's users are constrained by a 280-character limit in their posts, which can be liked, commented upon or re-shared (namely, 'retweeted') by others (Fownes et al. 2018; Holmberg and Hellsten, 2016). Retweets have been understood as an 'effective indicator for the extent to which messages are perceived important' (Jang and Hart, 2015:13). They could also indicate outdegree ties to others, this extending to the '@user' function whereby other accounts are

explicitly referred to, communicated with or targeted within a post (Williams et al. 2015; also Gibbs et al. 2015).

Another key Twitter feature is the #hashtag which links individual posts to broader user-generated themes and conversations, specific events or to specific (sub-)communities through specific keyword use (Arvidsson and Caliandro, 2016; Fownes et al. 2018; Gibbs et al. 2015; Holmberg and Hellsten, 2016; Pearce et al. 2019; Williams et al. 2015). Hashtags have been noted to potentially be non-neutral, however, linking directly to one specific viewpoint or side of a debate (Yardi and boyd, 2010), and/or indicating affective, place-based or cultural elements (Arvidsson and Caliandro, 2016).

Moreover, 'hashjacking' occurs where hashtags commonly utilised by one side in a debate are co-opted and used to positively raise the profile of opponents and their counter-perspectives (Holmberg and Hellsten, 2016). While a potential to understand hashtags as indicating networks exists, based on their study of climate campaigning Holmberg and Hellsten (2016) mentioned how they may not always be indicative of homogenous online communities with coherent views and issue attention, and so caution in analysis is needed.

Additionally, users can 'follow' and be followed by others. While arguably indicative of in-degree centrality, followship does not necessarily equate to consistent post engagement by the followers of any given account (Williams et al. 2015). Interestingly from the social movement perspective, both Holmberg and Hellsten (2016) and Hopke (2015) discussed Twitter's use to organise and inform about climate-related campaigning, including real-time protests; consideration extending also to affordance use (also Fownes et al. 2018). Affordances like hashtags and RTs can serve as mediation or framing devices through which post content or accompanying multimedia and weblinks are better understood (Arvidsson and Caliandro, 2016).

Compared to other social media, Twitter's API (Application Programming Interface) – an official means researchers can use to access the platform's extensive data – is relatively less restrictive regarding available data type and amount; although it has become more restrictive (Fownes et al. 2018; Holmberg and Hellsten, 2016; Jang and Hart, 2015). While such accessibility and public opinion-sharing aspects of Twitter are arguably highly beneficial to researchers, there is an observable bias towards this platform over others (Pearce et al. 2019; also Fownes et al. 2018).

While understandable, it could also be problematic and greater attention towards knowledge gained from other platforms warranted by recalling their different platform cultures. Indeed, Pearce and colleagues (2020) built upon this understanding to emphasise the existence of this single platform bias in social media-based research. They directly called for increases in the number of cross-platform studies and for greater attention to visual data vis-à-vis predominant text-centric analyses; the latter also labelled a form of bias. This was a recommendation made by other authors too, suggesting using sites alternative to Twitter alongside a visual multi-method approach which looks at climate and wider environmental challenges (Mahl and Geunther, 2022). Hence, therefore, why Instagram as a specific image sharing site was also drawn upon, and is similarly introduced later in this chapter.

Additionally, while Twitter boasts a large, active membership of just over 300 million people in 2017 (Pearce et al. 2019), being one of the most popular social media used by a diverse range of actors (Fownes at al. 2018; Jang and Hart, 2015), this is relatively dwarfed other platforms' membership like Facebook, YouTube, and Instagram (see Pearce et al. 2019). Nevertheless, as a result of Twitter's accessibility and size, tweets have frequently been collected for large-N datasets with the intention of examining user opinions, sentiments or networks (Holmberg and Hellsten, 2016; Williams et al. 2015). Within this, research has explored specific events to observe and understand public reactions, framings and issue attention spans (Jang and Hart, 2015; Yardi and boyd, 2010; in general, Pearce et al. 2019).

However, a further potential limitation to Twitter as a data source exists concerning platform users as, like those on other social media, they are not necessarily representative of the broader (offline) public. Data derived from social media may also be shaped or skewed in particular ways by platform cultures which guide user activities and expression (Fownes et al. 2018; Pearce et al. 2020). This is suggestibly less problematic with studies examining select organisations' communicative practices on the platform, as is the case here, since the aim is not to generalise findings to general public sentiments.

As specific examples of Twitter use for social research, Yardi and boyd (2010) examined people's reactions during the 24 hours after the fatal shooting of a doctor who provided abortions in the US in 2009. Reactions were collected from Twitter through keyword searches, totalling just over 11,000 tweets from over 4,000 unique users. With this, the authors noted how discussions around the murder came to centre more on the issue of abortion. Non-neutral hashtag use within posts was also reported, with these reflecting polarised 'pro-life' vis-à-vis

'pro-choice' stances within the abortion debate (on polarisation in the online climate debate, see Jang and Hart, 2015).

While observing some instances of engagement between those of different abortion-related views, the authors drew attention to the homophily network concept. Concerning how people seek out and engage with those who are similar to themselves in some manner (also Williams et al. 2015; from network literature, Crossley and Edwards, 2016), homophily was understood to result in polarisation as individuals form in-groups with those of similar viewpoints. This group is by definition juxtaposed against an out-group comprising those holding alternative outlooks on any given issue. It was further suggested that this re-enforcing of views within in-groups can re-entrench opinions while facilitating the development of more extreme attitudes or beliefs (Yardi and boyd, 2010).

Indeed, this is not the only Twitter study discussing homophily. Williams and colleagues (2015) also considered the concept concerning climate-related networks on the platform. They drew on over 590,000 tweets with specific hashtags that were posted over a four-month period in 2013 by around 180,000 users. Through this, interaction networks centred on Twitter affordances (RTs, @user and #hashtag) were examined, finding 'activist' and 'sceptic' (or climate change believer and doubter, respectively) communities which interacted in 'open forums'. However, the majority of users engaged predominantly in groups of like-minded individuals (homophily) in what the authors described as 'echo chambers' (Williams et al. 2015). In this sense, it could be suggested that environmental and climate movement groups or organisations would be more likely to interact with one another within homophilic networks rather than with a broader range of (opposing) actors.

Twitter has also been characterised as a platform in which image circulation centres largely on 'controversy and contestation' themes, inclusive of sceptic positions. Instagram, meanwhile, was found to favour 'aesthetically pleasing travelogue pictures'; this again reflecting platform cultures and affordance-shaped usage (Pearce et al. 2020:175).

With this in mind, Twitter imagery could be expected to engage more with critical arguments or representations of Nature and associated challenges, or serve as a site for the re-production of icons as classic yet contested visual framings of Nature co-opted by climate sceptics. Instagram may alternatively lend itself to 'landscape' representations of idyllic and pristine Nature or wilderness (also Pearce et al. 2019). In this vein, Pearce et al. (2020) suggested that

images and the meaning-making they contribute to can be influenced by the nature of online platforms themselves.

This discussion underlined the importance and interest of observing multiple social media platforms simultaneously, as well as the rationale behind this study's selection. Here, the cross-platform content analysis undertaken was designed to explore convergent or divergent visual framings of Nature. The method included different social media platforms as data sources and directly targeted the first research question; namely, that concerning the Nature representations produced and shared by movement actors.

Extending the scope to other sites, therefore, Instagram represented a platform which has been less studied despite having a larger membership pool than Twitter; standing at around 600 million users in 2017 (Pearce et al. 2019). Instagram similarly permits users to post, follow, like, comment, @user and add up to thirty #hashtags. There are no character limits like on Twitter, and engagement with others centres upon posting and reacting to the media – as images or videos – which are uploaded to the platform. Instagram could thus be oriented less towards the 'contestation' and polarised debates found on Twitter which centre more upon reactions to events and opinions.

Relatedly, hashtag usage is also not necessarily related to debates around issues and perspectives. On this, Pearce et al. (2020:164) further noted how affordances from one platform may not be equivalent in use nor meaning in comparison to another, even though they may appear as 'collapsed objects'; that is, features which appear directly equivalent and so unifiable across platforms, like the hashtag. Being explicitly image-oriented, Instagram also provides its users with options to apply various filters to their images, with these altering the colour, warmth and other compositional features of any given photo. Filters are thus another, this time Instagram-specific, affordance (Gibbs et al. 2015).

To provide examples of Instagram-based studies, there was exploration into how funerals, death and mourning have been visually captured and shared (Gibbs et al. 2015). Within this, selfies were found to be among the most common images posted on the funeral topic, reflecting the idea that Instagram is a platform for self-presentation. The notion of the 'platform vernacular', picked up in later discussions of platform cultures (for instance, Pearce et al. 2019), subsequently emerged, highlighting how each social media site shapes communicative forms and practices, including through affordances (Gibbs et al. 2015). The insights here were derived from an inductive coding of over 1,000 Instagram posts containing #funeral in 2014.

Meanwhile, Instagram images have been discussed as often being specifically curated by users who wish to be seen by others to increase their follower numbers. The focus is again on forms of self-presentation. This was the central claim of Arvidsson and Caliandro's (2016) study of individual's posting practices around luxury fashion brands whereby brand names and products served as conduits through which to promote users' identities or lifestyles in a desired manner.

Finally, Pearce et al. (2020) used Instagram alongside a number of other platforms in an effort to elaborate upon a visual approach to social media data. In so doing, they indicated that Instagram posts tend to contain aesthetically appealing images of places, as suggested above. While social media use for social research has been insightful for these authors, it is important to detail how these platforms, namely Twitter and Instagram, were drawn upon for the present study. An account of the approach adopted shall consequently be given.

6.3.2 Procedure

On these sites, the main image and accompanying text of each post was collected. For this, Python software (version 3.7) organised through Jupyter Notebook (v.6.0.3) was used with Twitter's free Standard API. Consequently, the policies and API access requirements of Twitter were followed. For Instagram, a different approach similar to that of Gibbs et al. (2015) was adopted whereby group profile pages and the imagery contained were collected through manually accessing the site without the use of the API or programmes such as Python. Overall, therefore, content analysis data was sourced online only. Accounts established solely for research purposes were here used by the researcher.

For Twitter, collection occurred weekly over a one-month period from 29th May to 19th June 2020 for UK groups. The Python code used specified for the returned tweets to be the most recent posted, excluding replies to others' posts, and including some form of 'media'; defined by Twitter's API as an image, weblink or video.[15] The query requested up to 200 tweets from each group and was submitted every Friday at 18:10 (CEST) within the collection window to capture the previous week's tweets (those collected were therefore posted between 22nd May and 19th June 2020).

Automatically organised in JSON files accessible via Jupyter Notebook, collected posts were manually checked by accessing the original tweet through the URLs recorded in the files. Based on limitations concerning the Twitter API's search filters, not every tweet captured included

an image but, where present, images were collected if they were broadly relatable to a 'Nature' theme. To avoid prescribing how Nature was constructed and visually represented by movement groups, images were deemed relevant where they contained any form of 'natural' environment element in their content; from trees in urban areas and animals in the wild, to depictions of planet Earth from space. This wide definition of Nature, aiming to allow groups to represent Nature in their own ways, remained true for Instagram collection. This included images as photographs, as well as cartoons, illustrations and memes where encountered.

Moreover, tweets were checked for content which may reveal, through the images or @user affordance usage, private individuals' accounts and/or identities. Any such tweets were completely removed from the data and their removal for ethical reasons noted in the JSON files (see below for elaboration upon ethical considerations). Since there were instances where some of tweets from a previous week would be collected on successive weeks, duplicates were removed from the data and a note indicating the reason for removal again entered into the datafiles.

With this in mind, the Python script used for collection from Dutch and Swedish groups, which took place from 4th to 11th September 2020 (thus covering posts between 28th August and 11th September; an additional two-week period of data collection), requested that only the 50 most recent media-containing posts be returned by the API. This helped to narrow data collection to the time period of interest; namely, weekly intervals within the specific collection period. It also served to reduce the presence of duplicates.

Although no guarantees exist that Twitter returns every tweet relevant to requests submitted to the API (Arvidsson and Caliandro, 2016; Yardi and boyd, 2010), relative confidence that most images shared by groups within the collection periods were returned can be held. This reflected the use of constrained time periods, the specification for media-containing tweets and in the number of duplicate tweets from the previous week. The script, in other words, narrowed the parameters for collection and the overall number of relevant posts which could be collected in the first place; increasing the possibility for greater comprehensiveness through a more targeted form of data collection. For the Netherlands and Sweden, as for the UK, the API was interrogated every Friday evening at the same time.

Following this procedure resulted in the collection of 184 Nature-related images from across UK, Dutch and Swedish groups on Twitter. This reflected 18 percent of all returned posts bearing images (1,002 in total), whether depicting Nature or not. These numbers exclude

duplicates, tweets removed on ethical grounds and those containing 'media' other than still images. From Instagram, meanwhile, 540 images were collected from across groups irrespective of country. These were collected manually by accessing each group's page directly before sampling every other image and collecting those which possessed some form of Nature representation (up to a maximum of 40 images per group). This collection occurred between 30th November and 8th December 2020, with each group's profile being accessed once during this timeframe.

There was no specified date serving as a cut-off point after which posts were no longer considered, and so collection from Instagram continued beyond posts from the previous week. This responded to the lower number of posts on the platform, as well as how they were all necessarily visual-based and thus of potential interest, unlike with Twitter where different media forms were necessarily returned by the API; this again reflecting platform cultures. As with Twitter collection, not every group returned a number of posts equal to the maximum specified, although this was not the case for groups such as XR and Greenpeace which seemingly made prolific use of their social media channels.

In total, therefore, 724 images (47 percent of all image-containing posts from across both platforms) were entered into an image bank for later sampling and analysis. The image bank size was thus in-keeping with existing visual studies. This included Gibbs et al.'s (2015) study into funerary representations on Instagram, mentioned above, with just over 200 and a little over 500 images retrieved on different collection days, respectively. The authors also accessed Instagram on different months like the present research, although only for one or two days at a time. The later aspect is therefore different since a more extensive month-long and separate two-week period were here used for data collection. Other example image banks, this time focused specifically upon climate change representations, included that of Rebich-Hespanha and Rice (2016) which contained 350 news media-derived images within an investigation into how mainstream media visually framed climate challenges, as well as a sample of 380 images from Twitter analysed more recently by León et al. (2022).

To summarise another relevant aspect of this data, Table 6.1 breaks these figures down according to the group typology and shows the percentage share of the combined image bank enjoyed by each respective type. In so doing, this table demonstrates how Conservationists and Reformers shared Nature-relevant imagery to a greater extent, perhaps reflecting their stronger focus on issues such as conservation which are necessarily visualised through images of

Nature. This was coupled with less emphasis on protest which is more the domain of Radicals and Demonstrative Outsiders; most especially in comparison with Conservationists. While differences in the number of image posts collected could reflect the different frequencies by which platforms were used, XR was no less active than the WWF or Greenpeace, for example. Despite this, the proportion of Nature images within their online communications was nonetheless found to be comparably lower.

Table 6.1: Cross-Platform Image Bank Composition According to Group Typology

Group Type	Nature Images	(% Share)
Conservationists	272	38
Reformers	271	37
Radicals	138	19
Demonstrative Outsiders	43	6
Total	724	100

Once the images were sourced online and the data processed in the above ways, the complete image bank was sampled twice. The first time, a pilot sample of *n*=48 images was drawn and used to help develop exclusive, interesting and comprehensive codes for image analysis in conjunction with the literatures reviewed in Chapter Three and Four. The second was a larger sample (*n*=144) in which codes developed through the pilot were applied. Frequencies for code occurrence were recorded following the group typology and country for later comparative purposes.

A stratified random sampling procedure was employed to equally represent the four group typology categories within the analysis (Rose, 2001). This involved the random sampling of images from within each individual group type, with selected images subsequently combined into a larger sample which then included all four types; each represented by the same number of images. This thereby accounted for the sample sizes, with the larger final sample reflecting the maximum possible number of images when comparing the number of images sourced from the four typology categories. In sum, the samples were large enough to equally represent each group type, remained practicably feasible for analysis and enabled a coverage which captured a range of differences and similarities in image themes (Rose, 2001).

The coding procedure, meanwhile, was iterative and open to identify the themes of interest emerging out of the data. Presented in the following chapter, these themes were deemed to be interesting and relevant to the project's research questions and the broader topic, inclusive of existing studies and the guiding theoretical bases (Braun and Clarke, 2006; Krause and Bucy, 2018; Murgia and Pulignano, 2019; Rose, 2001). Similarly to Vaismoradi et al. (2016), themes were understood as encapsulating the key ideas generalisable from mutually congruent codes. The possibility to develop sub-codes was left open during the coding process for both samples, and the full code list is available in Appendix Three. In terms of their initial creation, both existing literature and the theory of the present research were drawn upon.

Consequently, and according to theory, the ways in which Nature was communicated, such as through a landscape gaze or with a vulnerability focus, formed part of this procedure. Based in the empirical literature, images were analysed regarding climate icons or symbolic colour usage, as well as their composition in terms of formats, textual elements and camera distances from their subjects (see Chapter Three). The next chapter summarises the literature-inspired questions which informed the reading of each image.

6.3.3 Ethical Considerations

Before this project's other methods are discussed, at every stage literature on the ethical use of online and social media data, including its collection and storage, was strongly drawn upon to ensure correct practice (for instance, AoIR, 2019; BPS, 2017; EUI, 2019; Papademas and the IVSA, 2009; Townsend and Wallace, 2016). As a result, posts were only collected from the case groups which were all national and international-facing organisations existing in the public eye.

Posts linked to private individuals were removed from the data and noted within the relevant files as being deleted on ethical grounds, as referred to above. Only links or general mentions of other organisations (movement or mainstream media groups, for instance), or persons in the public eye (such as celebrities and politicians), were thus retained. The ethical considerations here therefore centred upon the anonymity of individuals who may be identifiable directly or indirectly from post content. It also took into consideration informed consent insofar as the recording of their information or, at least, the materials they have shared online was concerned.

In this case, a reasonable expectation of privacy was assumed to exist for private users of social media, although this use results in materials being publicly available; material they may have nevertheless not envisaged being collected for research purposes. This was deemed not to be the case for explicitly publicly-oriented organisations and other prominent actors, such as national politicians, who purposively use the platforms for outreach. It was based on this that the Python script used to interrogate Twitter's API specifically excluded case group 'replies' to others' posts. It was assumed that many of these others would be private individuals seeking information or contributing to group discussions, and so excluding replies would potentially reduce the collection of unwanted data.

This was also true of images within posts. Where the image clearly showed identifiable private individuals, or indicated some of their personal information, these were removed from the data and the reason for this again placed in the datafiles. As an example regarding images and privacy (understood regarding anonymity, confidentiality and informed consent), photos showing private individuals' faces and/or other information such as names and locations, like in screenshots of video conference calls, were among those removed.

Images in research also present additional issues of copyright. Consequently, groups were contacted through the researcher's official university email to request whether select images, which well-reflected core thematic findings, could be reproduced within the thesis and, potentially, future publications. The requests regarding copyright specified the non-commercial and fully-credited use of the images, alongside project information. The request further noted why interest existed in reproducing the relevant image within the research project. Finally, questions concerning any of these aspects were expressly encouraged should more information have been desired before making a decision. Where permission was not granted, alternative images clearly shared under a reproducible creative commons license were used; always with due reference to the image producer and the license under which its use was allowed. This was the case, for instance, with the images used for the survey instrument (below).

In these ways, the University of Milan's (2019) general code of ethics, and in particular articles centred upon the avoidance of harm to participants, the seeking of informed consent and anonymity, were adhered to.[16] This ethical guidance was followed also for the survey and interviews. By extension, relevant EU and UK privacy and data protection laws and standards

were similarly adhered to throughout the course of the project (including the EU General Data Protection Regulation framework, or GDPR; see EUI, 2019).

Despite its importance, however, ethics-related discussions have not always featured in published studies which draw upon social media data. Such research has included direct quotes from platform users, inclusive of searchable names and post dates, alongside image reproduction (Arvidsson and Caliandro, 2016). An absence of ethical reflection has also been witnessable in studies looking at emotive, controversial issues such as abortion in which tweets have again been directly quoted with users' names provided (Yardi and boyd, 2010). Given the sensitive, polarising nature of this issue topic, a risk to participants who may be targeted based on their personal views could potentially be perceived; underlining the importance of accounting for ethical research procedures. This absence is not true of every social media-based study, however, with Gibbs et al. (2015) noting how they were careful not to collect Instagram posts from private users which, as stated above, may pose questions around privacy, anonymity and informed consent.

While these considerations were made during the content analysis stage of this research, they continued into later elements of this study. Having now provided an account of the content analysis, the additional methodological approaches taken in order to answer the research questions are given attention. This begins with how the survey instrument was devised and distributed.

6.4 Survey

Following on from the foundations laid by the content analysis, a survey instrument was developed. Surveys are a common feature within social movement studies and they can provide crucial insights into respondent's beliefs, actions and demographics amongst other aspects (Klandermans and Smith, 2002; Walgrave and Verhulst, 2011). For the present research, the survey aimed to involve the rank-and-file members, volunteers and staff of case movement groups with distribution through group networks. In so doing, the third research question was intended to be addressed, and namely that which seeks to understand how movement imagery is received on the individual level. This related not only to image-specific questions, but also demographic and activist profile questions which helped to understand who group members were and how they perceived the imagery presented to them. The full questionnaire designed for this project, to note, is contained in Appendix Four.

It is important also to state that the selection of movement members for this stage of the data collection grants the findings emergent through later chapters a particular applicability to others who are already involved in a movement group (put differently, the constituents; McCarthy and Zald, 1977). In this sense, the survey was intended to cast light upon the types of imagery that may support continued constituent involvement within any given environmental and climate group. However, it is argued here that there exists also the possibility that any constituent reactions to images and the possible influences over, for instance, attitudes or behaviours, are applicable also to adherents; those who are sympathetic but not yet involved in a movement organisation (Chapter Four; McCarthy and Zald, 1977).

With shared concerns and perspectives, certain visual themes within movement communication strategies that resonate well with constituents may therefore also resonate with adherents and, perhaps, influence them to become involved in the group in some manner. The results of the survey as designed for this research may therefore cast light upon such possibilities which are important in the context of continued environmental degradation and the requirement for action to mitigate and reduce the worst effects of climate and environmental risks, as well as interlinked societal processes.

To continue regarding the distribution of the survey, requests were made to group organisers and/or those responsible for group communications primarily through emails. They were asked to share the weblink to the online survey through member listservs or similar. Accompanying this message was information about the Principal Investigator, the project, the use and purpose of data collection, as well as details around core research principles such as informed consent and the right to withdraw. This information was also supplied to prospective respondents at the start of the questionnaire before any questions were posed or responses collected.

The first requests for survey distribution were sent on 31st October 2021. As it is important for response rates and sample sizes to send additional communications after the initial recruitment request (Klandermans and Smith, 2002), email follow-ups were sent in early December 2021 and then on 14th January the following year. A final follow-up, this time asking posts to be made on target groups' social media (private Facebook groups) through the use of Facebook Messenger as a different approach to reach 115 of the identified groups with active accounts, was sent on 28th January 2022 and reflected previous email content. Social media posts of this nature have also been used by others for recruiting people of interest to studies (for instance, Murgia and Pulignano, 2019).

The survey was closed to respondents after 15th February 2022. At the end of this process, the Conservationist response rate was particularly low. The survey was consequently opened and distributed once again among this typology category's groups in the three selected countries. In this instance, collection ceased on 22nd May 2022 and resulted in the desired impact of increasing the number of Conservationists contained within the final sample.

For elaboration, surveys were hosted online through Google's survey platform (Google Forms). This option was accessible to both researcher and participant freely and without limit. It also permitted questions to be organised on a variety of scales, including Likert, as well as for images to be embedded within specific questions; a necessary feature for the present research. Multiple pages were also possible through this survey host and questions could be marked as compulsory to answer.

For the latter, only the initial confirmation that consent had been given following a reading of the information and consent form on the first page of the survey was marked as obligatory. All other questions did not require compulsory answers, but nonetheless provided "don't know" and "prefer not to say" options. Google Forms was accessed and organised through the researcher's institutional email account which granted access to this platform. No personal accounts were used at any stage to create or distribute the survey, including during follow-ups (email and social media).

In terms of how groups targeted for survey distribution were found, the underlying idea was to contact groups on both national and local levels within the selected countries. For this, the international XR website was consulted since it provided a world map indicating the presence of every local XR group, including in the UK, Netherlands and Sweden (XRI, 2022). Each group was examined through this website, with email addresses and social media (Facebook) accounts open to direct messages recorded. A similar mapping system was also provided by the UK's branch of FoE (FoE UK, 2022), and so this was consulted in the same manner. For the other groups, including FoE outside of the UK, the main national branch websites were consulted for contact details.

While Milieudefensie and Jordens Vänner provided contact details for their national and locally-based groups, this was not the case with Conservationists. Instead, this latter type listed only contact information for their national or regional centres. As a result, greater difficulty diffusing the survey among Conservationists was encountered according to this lower availability of possible access points. Greenpeace presented a more centralised and arguably

restrictive contact system like Conservationists, although a number of contactable UK-based local groups were found through the national branch website. As noted below, there were additional challenges regarding access to respondents from Greenpeace and Conservationists on the basis of their membership and volunteer structures.

For distribution, each group type received a different weblink to aid in later response differentiation. This was done since this group typology-level comparative aspect was of core interest to the present research. As such, multiple identical surveys were created in order to produce these separate weblinks, with one per type. With the survey platform used, every questionnaire populated its own unique Excel spreadsheet with submitted responses; an arguable advantage compared to the otherwise extensive manual data processing necessary with non-internet survey designs. This allowed for any missing data regarding the group type to which respondents belonged to be accurately replaced by valid data facilitative of inter-group comparisons. Afterwards, Excel data files were transformed to be usable by the Stata statistical programme (v.17), and these .dta files were then used for further data organisation, cleaning and analysis.

Conducting the survey online returned a final sample of *n*=137. Since gatekeepers were relied upon for distribution and access to group members at all times, no exact response rate to the participation requests can be provided. However, a final positive response rate of around 50 percent would be expected within the movement literature as an average rate for in-person surveys (Saunders, 2007a). Lower is nonetheless possible and acceptable too, and postal surveys often have response rates of no more than 30 percent (Klandermans and Smith, 2002; Van Stekelenberg et al. 2012; Walgrave and Verhulst, 2011).

Notable yet insightful study examples include response rates of 32 percent (Saunders, 2007a), as well as of 18 to 41 percent (Saunders et al. 2012). Indeed, the different rates are relatable to the method of conducting the survey itself, with face-to-face commonly held to offer larger sample sizes and postal the lowest; the latter extendable to internet-based surveys where researcher and respondent similarly remain at a distance from each other. Nevertheless, in-person surveys are often shorter and so potentially provide less detail unlike more remote forms where the respondent may have greater time to comprehend and reflect upon the questions before answering (Walgrave and Verhulst, 2011).

For the present study, 606 groups were contacted in total. A further 26 groups were identified, but their email addresses did not receive the messages sent due to their closure by the group or

already full inboxes. In the absence of a clear response rate reflecting individuals who participated after receiving the survey request distributed by gatekeepers, the total number of groups contacted can be drawn upon instead. Consequently, the sample of *n*=137 roughly equated to one positive reply for every four groups messaged; an approximate positive response rate of 23 percent.[17] This figure was thus consistent with movement studies and the use of online or postal survey instruments in this field.

In terms of the final sample size, meanwhile, this was comparable to other environment and climate movement studies. For example, Saunders and colleagues' (2020) recent project seeking to understand who XR participants are relied in part on postal survey data. Specifically, they used this approach at two separate large-scale protests held by XR in London. From one event, 103 survey responses were received while, at the other, there were 129 completed questionnaires; both figures similar to that of this research. A number of Walgrave and Verhulst's (2011) postal surveys into protest produced final samples of around 100, too. In these ways, a single survey with a final sample of *n*=137 responses was in-keeping with other movement studies.

Regarding group types, 69 respondents (50 percent of the sample) belonged to Radicals while a further 52 (38 percent) were Reformers. Together, these two types accounted for the majority of responses. Conservationists returned 16 responses (12 percent), while Demonstrative Outsiders were excluded from the survey. This decision was made on ethical grounds related to the age of Fridays for Future and UKSCN members, and is elaborated upon below. Reflecting the greater number of active groups within the UK, this country accounted for the majority of respondents (*n*=116, or 85 percent of the total sample). The Netherlands returned 14 responses (10 percent) and Sweden four (two percent). A further two respondents did not provide their location, and one gave the name of a non-case nation as their present country of residence.[18]

Looking at the typology samples, these were relatable to an emphasis Klandermans and Smith (2002) have previously made. Specifically, they advocated for comparative survey designs within movement studies which aim not for large samples of one group, but instead focus upon smaller cross-group or longitudinal samples of, for instance, 50 respondents each. The Radicals and Reformers here align to these ideas, and thus allow a comparison of each group type with the understanding that views, perspectives and experiences will not necessarily be homogenous across group types, countries nor issue contexts. They may also reflect the institutionalisation

and radicalism differences of the types themselves (Klandermans and Smith, 2002; Van Stekelenberg et al. 2012). Certainly, the research was designed with such a comparative element in mind, with this lending itself to the range of data sources used as part of a multi-method approach (Lamont and Swidler, 2014).

To expand on the exclusion of Demonstrative Outsiders at this stage, this type of group was characterised strongly – if not primarily – by the youthfulness of its constituent membership. This therefore included those who may not have reached the age by which they become classified as adults. In such cases, distributing the survey to Demonstrative Outsiders might have resulted in data collection from legal minors, including data of a personal (demographic) nature, without the consent of a parent or guardian; and this raises ethical questions (for instance, EUI, 2019; Townsend and Wallace, 2016). It was to avoid this occurrence that they were not included in the survey or interviews. Nevertheless, the forms their visual Nature representations took were investigated through the content analysis and subsequently informed questionnaire design and all ensuing analyses.

Meanwhile, it is here suggested that the low number of responses from Conservationists was relatable to this type's organisational and membership structures. To elaborate, these groups were characterised as formal, professionalised bodies which operate along cheque-book membership lines. In this sense, their members are different from Radicals, for instance, where there is greater horizontality in organisation and members are more active in group activities and workings; as opposed to providing only financial donations like Conservationists. Moreover, related to this informal structuring Radicals also produce more locally-organised networks and so present researchers with multiple points of access to active membership bases which do not rely on a centralised set of contact details. This local organisation, albeit blended with more formally arranged national-level elements, remains true also for Reformers although difficulties were still encountered in identifying local Greenpeace groups.

By extension, Radicals provided the greatest accessibility to their members and volunteers through their openly advertised local group networks; with each group having its own contact information. Resulting from these structures, therefore, not every movement organisation has the ability or willingness to provide researchers with access to their memberships, and this was particularly true for formally-organised Conservationist groups (Klandermans and Smith, 2002).

The survey distribution experiences regarding organisational structures and predominating forms of membership thereby reflected the general ideas of the group typology devised for case selection. This incorporated also Reformers as lying somewhere between Radicals and Conservationists, with FoE clearly presenting all of their local groups alongside contacts for their central branch in the UK, and Greenpeace being less accessible on the local level while providing limited contact means to their more formally organised national-level groups.

To continue, this lower accessibility to respondents (members and/or volunteers) was underlined yet further through research communications with Conservationist groups and Greenpeace. Here, their communications teams which received the survey distribution requests noted how they were unable to share the questionnaire link on the basis of this more formal structure of their membership schemes. As a result, follow-up emails to Conservationists were re-worded to no longer mention members or volunteers, but to more specifically ask for the survey to be distributed among staff. In response to this framing, the gatekeepers who received the follow-up requests replied saying that they had shared the survey link among their immediate colleagues. There was also a reply from a Swedish Conservationist organisation which highlighted how the group had their own internal surveys for members to complete, which they prioritise, and that the survey was both not in Swedish and comparably long. Certainly, questionnaire length and language can reduce the number of survey completions (Walgrave and Verhulst, 2011).

While there are overall high levels of English language ability within Sweden and the Netherlands, this comment perhaps suggested that response numbers from these countries may be higher where their native languages are still used. Indeed, this might have factored into the predominance of UK-based respondents within the final sample. That said, it is believed likely that this predominance related more to the greater presence of contactable environmental and climate groups within the UK compared to the other two countries. Certainly, the UK boasted a large network of local groups for FoE and XR which made identifying additional points of access to members easier than with other groups and countries. While survey translation was not feasible for the project at hand, language is an aspect which future research may wish to reflect upon in efforts to attain greater survey dissemination within non-native English settings.

Unsolicited comments about the survey were also received from respondents who chose to contact the researcher following survey completion. Among them, one individual noted difficulties encountered while using the online platform, such as progressing to the next

questionnaire page, which increased the amount of time taken on survey. Some font sizes also seemed overly small for this individual, too (including section sub-headers). Another revealed that they were slightly uncertain about the meaning of Q8, finding ambiguity in its wording. This question, for clarity, concerned trust held in different types of actors regarding their ability to provide solutions to environmental and climate challenges. The exact wording was: 'To what extent do you feel the following can be relied upon to solve environmental problems in general?'. It was organised on a five-point scale ranging between 'Not at all' and 'A great deal', with the different actors listed beside.

No other comments were received along these lines, but they nonetheless highlighted the importance of survey presentation and, particularly when using online platforms, usability. Increasing accessibility is therefore crucial to data collection regarding sample size as well as response quality and accuracy, yet not every respondent will share the same experiences even with carefully designed instruments. The only additional comments received from respondents, for example, indicated that the survey topic was interesting to them and that no issues were found in answering the questions or using the survey host platform. One noted through email that the survey was 'kind of fun to do'. Those individuals who did take the time to get in touch and comment on the survey instrument were thanked for their participation and feedback.

Regarding questionnaire wordings and response options, they were informed by existing survey instruments such as the 2016 European Social Survey round which included a rotating module on climate change attitudes (ESS, 2016a) and, in the area of social movements, that from the Caught in the Act of Protest project (Klandermans et al. 2017). This latter protest-oriented survey was also used more recently by Saunders et al. (2020). For these scholars, their central interest was in exploring whether XR could be seen to have inspired a 'new generation of [climate] activists' (Saunders et al. 2020:2).

To this end, they charted the demographic profiles of those participating in two XR protests in London in 2019. As such, an in-person survey was conducted with 303 participants, and a longer postal survey was returned by 232 individuals; these figures reflecting the combined sample from the two different protests. Supplementing this data, the authors compared survey responses with an older dataset from climate protests which took place a decade prior to XR's events.

Saunders et al. (2020) consequently presented descriptive statistics based on survey questions around age, protest experience, education, class, current place of residence, ethnicity, gender,

trust in institutions, group memberships, climate concerns and protest motivations, as well as ways participants heard about the protests they became involved in. In so doing, they found that XR was able to attract many first-time protest participants to the surveyed events. Coupled with this, however, they also found that the demographics of participants still reflected those of the 'typical' environmental activist; namely, those who are educated, middle-class and politically left-leaning, for instance.

As a result, the authors highlighted how although XR was able to generate new activists, they continued to reflect the typical profiles of earlier environmental protesters. XR was subsequently not deemed to be a completely new type of movement group concerning who it drew to its protest events (Saunders et al. 2020). What this paper also usefully indicated, however, were the types of data which can be gained from protest surveys, including that which supports descriptive statistics of movement groups and participants. This is of interest to the present project; hence why survey design was in part inspired by the work of Saunders et al. (2020) alongside the earlier Caught in the Act of Protest survey instrument which these authors similarly followed. The demographics of survey and interview respondents for this project into movement Nature imagery are considered in Chapter Eight.

Beyond this, the work of Osgood (1952) on the 'semantic differential' was also drawn upon to inform questions concerning respondent reception of images. This represents a useful scaling technique widely used across disciplines (Ploder and Eder, 2015), and is elaborated upon below. In referring to these notable and well-used questionnaires and papers, reasonably greater confidence in not only the questions of this project's survey, but also in the quality of any subsequently collected data, could thus be held. Drawing upon previous movement studies' survey designs also contained the added possibility for cross-project comparisons due to a greater degree of standardisation regarding how data was collected around core topics, themes and concepts; thus providing another benefit (Klandermans and Smith, 2002).

Regarding what the survey was designed to measure, the core interest was in understanding the interpretation and reception individuals have towards the environmental and climate movement's Nature imagery; the third research question specified. There were, therefore, three central and interconnected elements deemed important to measuring this main focus. Firstly, it was important to explore who these individuals were, inclusive of their pre-existing dispositions, value orientations, and group memberships. This further involved demographic questions and related to movement literature discussions around the 'average' or 'typical'

activist. Secondly, it was also important to know their ideas around images in environmental and climate change communication in general. Lastly, it was crucial to understand how movement depictions of Nature were directly understood by these individuals, who represented rank-and-file movement members.

Here, then, the core hypothesis shared this orientation towards perceptions regarding the depictions of Nature presented by movement imagery, including their perceived efficacy as communicative tools. Within this, a basis was found within a social movement studies-inspired typology for environmental movement groups (excluding Demonstrative Outsiders, as noted above). On this theoretical base, therefore, it could be assumed that: members of Conservationist organisations will prefer positive, clean and healthy Nature depictions alongside conservation-specific issue foci. This can be related to Conservationist's main preoccupation with the preservation of the environment within their work, as well as highly institutionalised organisational structures. Radicals, meanwhile, would suggestibly go in the opposite direction and express a preference for more negative Nature framings which emphasise themes of threat and vulnerability; feeding into a common campaign discourse of urgent actions and climate 'emergency'.

Reformers, lastly, were suggested to fall in-between the previous two types by expressing no clear pattern – or, rather, a mixed Nature depiction preference and judgement – given their combination of radical and institutionalised organisational factors and actions. This therefore underlined the requirement to know about the individual respondents (regarding demographics and group memberships), their evaluation and feelings around movement imagery of Nature, plus general viewpoints on the image as a communicative device. This then directly related both to the theory and to the central aspects measured by this study.

Additionally, the survey asked a number of questions organised along different scales, from Likert to dichotomous 'yes/no' options, to measure the main research interests. They concerned the sources participants gain environment-relevant information from, how they engage with and value Nature, as well as their concerns or beliefs around environmental issues and their solutions, for instance. Six Nature-related images were provided within the questionnaire, and these reflected the types of imagery present through the content analysis. This was therefore similar to Krause and Bucy's (2018) visual survey of responses to fracking which presented seven images to respondents from a bank of 40 images, for example.

At this point in the survey, questions concerned how Nature appeared to be represented, how the image made them feel and the extent to which they believed the image may be an 'effective' communicator of environmental or climate challenges. It was here that the semantic differential approach described by Osgood (1952) was employed (for example, Image 6.1).

Regarding the images embedded directly within the survey, they were chosen to represent a number of core themes stemming from the content analysis. This included icons, threat and vulnerability, pristine Nature, the use of text to further frame images and direct their reading, as well as protest. These images shall be introduced in later chapters to both elaborate upon content analysis-related codes and themes, as well as the results of the survey.

In the meantime, however, it is important to note that the survey concluded with demographic questions which concerned: age; education; gender; occupational status; country of residence and birth; social class; and political leaning. Additional questions asked participants to specify the case group to which they belong to aid in data organisation, analysis and comparison under the devised typology. Names or other personal information beyond that listed were not solicited.

Nevertheless, at the end a statement invited requests for a short summary of the research to be sent to the respondent following the project's conclusion. Those who wished to receive such a summary were asked to contact the researcher directly at their university email address. It was also made clear that their email addresses and names, if supplied, would remain confidential and never shared with a third party under any circumstances in line with guiding ethical principles. Any additionally provided details would also be stored separately to the data, with no associations made between them. Such clarifications regarding anonymity and confidentiality can be particularly important around sensitive topics, such as illegal protest involvement or demographics, and can help increase respondent trust in the research and researcher which is important for overall data quality and accuracy (Klandermans and Smith, 2002).

In practice, and with regards to principles of data minimisation around demographic questions, age was organised into categories for participants to select, since more precise detail here was unnecessary. With gender, participants were supplied with an open response box in which they were able to write for themselves the gender they most identify with. These would then be categorizable by the researcher at a later date prior to data analysis. It should also be noted that

every demographic question was accompanied by a 'prefer not to say' option, and so respondents were not pressured into providing an answer if they did not wish to do so.

Image 6.1: Example Image and Question Display within the Online Survey Platform
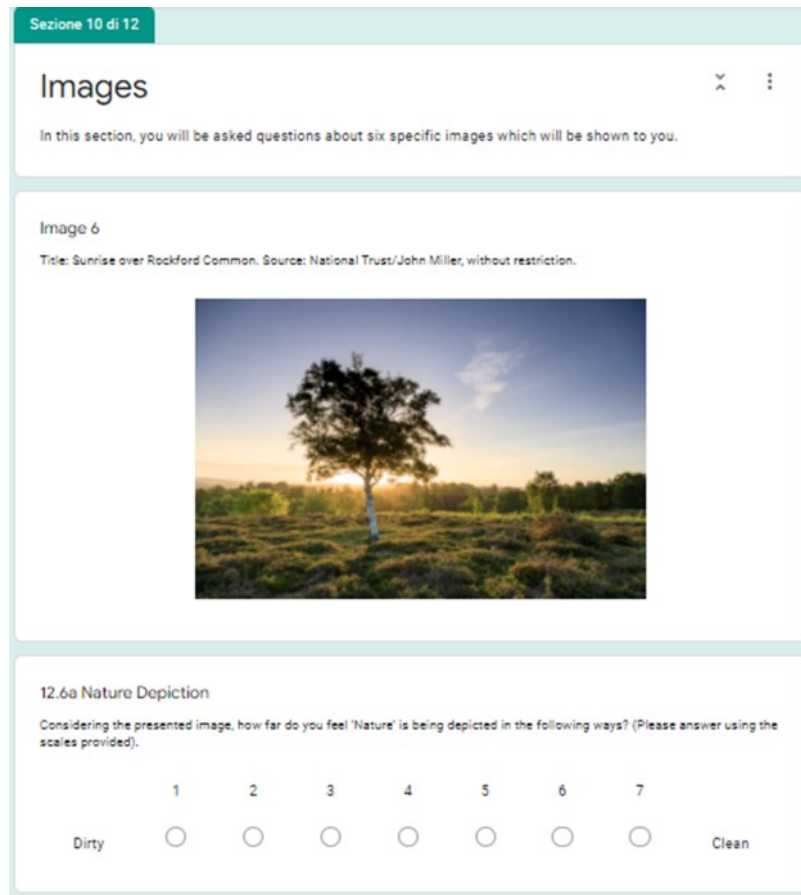
Embedded image source: "Sunrise over Rockford Common, New Forest, Hampshire", John Miller/National Trust (no restriction).

Demographic data was collected to gain greater understandings into 'who' is involved in the movement, and within each group type. This bore additional relevance to social movement literature discussions of activist profiles, with claims of a 'typical' background for environmental activists; often put in terms of them being university-educated, middle-class, and white (as noted above; Saunders et al. 2020). The data thereby provided insightful descriptive statistical information which spoke to and built upon these demographic discussions (Klandermans and Smith, 2002).

6.4.1 Semantic Differential and Factor Analysis

To expand upon the use of Osgood's 'semantic differential' (SD), this approach can be understood as an exploration into 'affective meaning' (Osgood, 1979:69). To do so, SD research commonly employs a series of seven-point bipolar scales containing pairs of opposing adjectives, one at each end (Divilová, 2016; Ploder and Eder, 2015; Skrandies, 2011; Osgood 1952, 1979). The idea is that respondents offer a judgement around any given concept (as a person, place, event or similar), indicating along the scales the degree to which, for instance, a concept is 'good' vis-à-vis 'bad'.

These adjective pairs can be drawn from a thesaurus (Osgood, 1979), keywords from interview data (Norbergh et al. 2006) or, as with this study, from existing academic literature and the themes emanating from a content analysis. Regardless of source, some have noted how, ideally, adjectives used should be representative of one aspect of meaning (see the 'EPA' structure, below), as well as relevant to the concept intended to be measured (Divilová, 2016). As commented upon later, these conditions were sufficiently met.

SD scale results can be visualised through plotting a measure of central tendency for each, with scales presented together in a single list (for example, Osgood, 1952). Average judgements for every scale and unique image in the present study were plotted using the mean as this measure. The purpose was to examine how the different representations of Nature were 'seen' by respondents and how their understandings of these constructions made them feel; reflecting the SD-relevant questions from the survey instrument (Q.12, 13).

In so doing, Nature image interpretation and affective power were analysed comparatively across group types, with respective mean responses plotted across the scales for each image. These visualisations are presented in Chapter Nine and facilitated discussion of how individuals involved in the movement receive that movement's Nature imagery (RQ.3). In short, the images were treated as the unique concepts around which to measure meaning, with these investigated through the two sub-concepts of Nature representation and image feeling.[19]

While most SD studies utilise noun words as the concepts to measure through adjectives, some consideration has been given to the image as concept; albeit briefly. It has been suggested that meanings associated with images of a concept are in-keeping with meanings linked to more linguistic (word) stimuli, with both being signs for the object-concept investigated. This was also found to be the case between words and visually symbolised or stereotyped situations (Osgood, 1979; also Ploder and Eder, 2015). This latter point is relevant for iconic imagery

serving synecdoche functions too, such as the polar bear, where the associations between a polar bear image and the word 'global warming' might therefore be congruent in research participant responses.

Factor analysis is also common to semantic differential approaches (Osgood, 1952, 1979). In terms of the SD literature, factor analysis offers a means to identify the dominant semantic dimensions forming the core elements of meaning behind a concept (Osgood, 1979). 'Factors', to note, can be considered as latent variables within the dataset which can measure a particular phenomenon (Bollen and Arminger, 1991).

One factor analysis example from the literature investigating Nature imagery was that of Buijs et al. (2009); a study considered first in Chapter Three. Although these authors did not use the semantic differential approach, they nonetheless used factor analysis to categorise Nature imagery which was similarly embedded within a survey instrument. This returned three factors by which the forms of Nature captured by the images reflected; these being productive, domesticated and independent Nature.

The authors here specified factor loadings – defined later – to be returned only when they were above .40 in value. That said, the lowest was .50 and most loadings were higher, standing at around .80 with 67 percent of variance accounted for by these factors on aggregate (Buijs et al. 2009). This paper therefore demonstrated how images can not only be embedded successfully within surveys, but also how subsequent use of factor analysis can aid in understanding the meanings and types of Nature within each image. Both are of interest to the current research.

More specifically regarding how factor analysis was employed for this present study, only factors with eigenvalues above 1.0 were retained. Eigenvalues, to note, relay how much variance a factor explains and, generally, factors with values at or above 1.0 are considered to be of interest and relevance with this threshold known as the Kaiser criterion (Krabbe, 2016). Once factors meeting this criterion were identified, oblimin rotation was applied. This oblique rotation form was chosen since, unlike orthogonal rotations such as varimax which assume independence between factors, oblimin allows for correlations between factors. It does so as part of its simplification of the first, unrotated factor analysis; a process facilitating interpretation (Bandalos and Boehm-Kaufman, 2009; Krabbe, 2016).

Resultantly, oblique (oblimin) rotation was selected since it would identify correlation if present and, if correlation did not exist, would instead report uncorrelated results similarly to orthogonal approaches. Moreover, oblique rotation could also provide better simple structures

within factor analysis, consequently assisting in result interpretation through less cross-loadings being returned among the factors (Bandalos and Boehm-Kaufman, 2009). Nevertheless, orthogonal (varimax) rotation has also been used in SD studies (for instance, Divilová, 2016; Osgood, 1979; Skrandies, 2011).

To further aid interpretation following rotation, scales which did not have factor loading above the value of .5 were removed from the results table. This provided a more readable output, with remaining factor loadings indicating the correlation between items (individual SD scales) and the factor under which they were grouped (Bollen and Arminger, 1991; Krabbe, 2016). Values above .5, and particularly above .8, can be considered as representing high scores which indicate greater item-factor correlation (Osgood, 1979).

Put differently, factor analysis clusters items together under returned – and rotated – factors, with loadings indicating the degree an item belongs to the factor under which it is clustered. With SD scales representing these items, this grouping function helped to identify congruence and divergence between adjective use within various dimensions of meaning, such as EPA (Osgood, 1979; defined below). Once factors have been identified, a next important step is to assign labels reflecting what they should measure according to the loaded items. While remaining somewhat subjective since it is a decision made by the researcher, labelling can be strongly based in semantic ideas and the factor loadings (Osgood, 1979).

It is also possible to test the reliability of factors as measurement scales insofar as they are internally consistent regarding their respective items (Cronbach and Meehl, 1955). Here, inter-item correlation and Cronbach's alpha can be examined, with results returned ranging between the values '0' and '1'. The latter value indicates that reliability has been achieved. The closer to this upper bound, therefore, the more internally consistent a measure can be said to be. Although no formal rule exists, Carmines and Zeller (1979) suggested a good reliability to stand at .80; reducing the chances that results stem from error.

Additionally, a standardised residual matrix can be returned and examined following factor analysis. These residuals indicate the difference between expected and observed values within the data and, therefore, how suited the factor model and data are to each other. The closer residuals are to the value of '0', the closer the match between these observed and expected results. Large residuals (+/-2 or above) can suggest the presence of outliers or potentially influential cases which could alter factor analysis results and, perhaps, create additional factors (Bollen and Armiger, 1991).

Lastly, once factors have been identified and their internal consistency (reliability) confirmed, attention can turn to validity. This concerns how measures are usable and measure what they intended to, and a number of different types of validity exist with some variation of focus (Cronbach and Meehl, 1955; Krabbe, 2016). Among these, there is face validity which depends on the judgement of those using the measures, criterion validity that focuses upon comparing a developed measure against another 'gold standard' example of it, and construct validity. The latter form is more analytical and utilises hypotheses around anticipated relationships (Krabbe, 2016). However, in the absence of a comparable gold standard and questions around the suitableness of construct validity in SD studies (Divilová, 2016), content validity remained perhaps the most applicable form to apply here (Cronbach and Meehl, 1955).

Content validity involves a determination as to how far the measure could be said to be comprehensive in relation to the phenomenon being measured. Retaining a degree of subjectivity like with face validity, a comparison of results can nonetheless be made against literature examples of valid measures, theories or similar (Krabbe, 2016). For the study at hand, this comparative aspect could be made to the EPA structure of meaning commonly returned through SD research. Additionally, scales for this project would be expected to cover the various elements of image reception defined through the sub-concepts of Nature representation and image feeling. These expectations and EPA will now be introduced.

In relation to SD data, then, factor analysis provides a way to identify relevant dimensions of meaning around a given concept. To elaborate, however, it has commonly been found that a particular structure emerges among the produced factors and scale factor loadings (Ploder and Eder, 2015). It is a structure of (affective) meaning which research has labelled EPA (Osgood, 1979). This acronym has been suggested to reflect three core dimensions of meaning which have often captured the most variance between them as the first three identified factors following a factor analysis (Osgood, 1979; Ploder and Eder, 2015; Skrandies, 2011). These are: Evaluation ('E') concerning whether a concept is good or bad, and beautiful or ugly, for instance, and this is commonly the most prominent factor regarding captured variance; Potency ('P'), relating to the general nature of a concept with scales judging a concept as strong (powerful) or weak, close or distant, and large or small; lastly, Activity ('A') encompasses bipolar adjective scales such as fast-slow, hot-cold and sharp-dull, thereby best reflecting a specific form, shape or movement associated with a concept (variously, Chaffee, 2001; Divilová, 2016; Osgood, 1979; Skrandies, 2011). Acknowledging that overlap between dimensions remains possible (Osgood, 1979), the extent to which these three dimensions might

be found through survey data is therefore a point of interest to be returned to in Chapter Nine, and through questions of measurement and reliability within the following section.

Certainly, one of the underlying assumptions Osgood held through the semantic differential technique in concert with factor analysis was that the EPA structure of meaning was universal (Ploder and Eder, 2015). In later works, therefore, Osgood (1979) sought to validate his claims through cross-cultural and linguistic studies. While the outcomes of these studies are not necessarily of interest here, the basic idea of cross-group analyses is in relation to the group typology at the centre of this project. Drawing on literature which discussed EPA through SD and factor analysis, the 16 SD scales of this research were suggested to speak to these dimensions of meaning following Table 6.2.

Table 6.2: Anticipated EPA Scale Groupings

Evaluation	Potency	Activity
Dirty-Clean	Powerless-Powerful	Discouraged-Encouraged
Ugly-Beautiful	Dangerous-Safe	Uninformed-Informed
Vulnerable-Resilient	Worried-Relaxed	Disinterested-Interested
Managed-Wild	Angry-Calm	
Unfamiliar-Familiar	Threatened-Secure	
Non-local-Local	Upset-Happy	
Unhealthy-Healthy		

Here, the Evaluation dimension may be understood as synonymous with the Nature representation sub-concept, centring on judgements around image content and framings. Potency, meanwhile, could be regarded as reflecting the image feeling sub-concept concerning how perceptions around image content and framing (Evaluation) holds personal affective qualities. Lastly, Activity could speak to ideas of image influence concerning action encouragement or inspiration; thus being one manner to explore image usefulness while tying into the image feeling dimension captured strongly by Potency.

To elaborate scale usage in the present chapter, however, they referred either to Nature representation (survey Q.12) or image feeling (Q.13) and were used as separate variables. Importantly, each scale was repeated for every unique image. Although sample sizes

occasionally differed by one or two observations for the mean measurements used to plot group type response averages, missing cases were more formally treated at the factor analysis stage.

Specifically, a listwise deletion filter was specified in which any observation with a missing value for one of the scale variables was removed from the data entirely, inclusive of scales where answers were provided (Peugh and Enders, 2004). This was performed for greater consistency across scales which assisted in producing more accurate factor groupings. Listwise, however, is not always the recommended approach to treating missing values since it could result in large reductions in sample size (Peugh and Enders, 2004). That said, applying the listwise filter produced a total sample of n=104 responses (76 percent of the complete survey sample) for every SD scale, and this is in-keeping with other SD studies, including Divilová (2016) with a sample of 73 respondents, or Osgood (1979) with 100. The effects of listwise deletion in this sense were therefore held to be reasonable for the study at hand.

Resultantly, the factor analysis made use of the data from these 104 respondents. From these 104 subjects, each contributed 16 answers (one per scale) for every unique image, of which there were six. As a result, they thereby provided 9,984 total responses (or, 1,664 per image); a fair amount of data with which to explore movement member's interpretations and affective meanings in response to the images embedded within the survey instrument.

As with all approaches, however, there have been critiques. This notably included questions about the underlying claims of a universality for the EPA structure of meaning, including how other factors not congruent to the E, P or A remain possible. This plausibility is deemed to have been somewhat overlooked by key SD scholars such as Osgood, and potential cultural insensitivity behind the universality claim seen to exist (Ploder and Eder, 2015; cf. Osgood, 1979). This could relate in part to how the parameters through which meaning and concept are explored have to be specified in advance by the researcher, rather than developed more inductively from respondents themselves (Hahn and Heit, 2015). This is not the case, for instance, with the photo-elicitation interviews introduced later in which participants were presented with a researcher-selected and analysed image, but allowed to openly explore what was shown and how they ascribe meanings, attitudes or values to it (Prosser and Schwartz, 1998).

Remaining here with SD, others have highlighted how its bipolar scales are conceptualised. Specifically, it has been noted how the centre of a scale does not, as SD interpretations commonly suggest, indicate a 'neutral' response or association with the concept. Indeed, it has

contrarily been suggested that centre-scale responses may reflect ambivalence – not neutrality – and that SD and its measurement scales remain insufficient to explore this possibility (Gardner, 1987; also Ploder and Eder, 2015).

Put differently, it is feasible that people hold mixed as opposed to neutral feelings towards any given concept, and so choosing the centre or one end of a scale should not necessarily be read as a rejection of the other options (Gardner, 1987). Moreover, neutral (or, ambivalent) responses may still hold consequences, positive and negative, including around people's behaviour in relation to concepts. This was suggested, for instance, by Norbergh et al. (2006) in an SD study of nurses' attitudes towards dementia patients (the 'concept') where they point out the possibility that a nurse who associates 'neutrally' in their evaluation of a particular patient's social (non-)interaction may provide less contact with this patient compared to those who are felt to be more communicative. With this in mind, then, it is arguably important to aim for greater nuance when reading SD data in order to capture this added complexity to people's meaning-making around a concept.

Nevertheless, SD and factor analysis provide insightful means by which to quantitatively investigate people's attitudes, emotions and perspectives around a concept of interest; including comparatively between sets of different concepts to chart similarities and differences (Divilová, 2016; Norbergh et al. 2006; Osgood, 1979; Ploder and Eder, 2015; Skrandies, 2011). Additionally, another benefit is the relative simplicity of the scales alongside the related ease of data collection and organisation for analysis (Hahn and Heit, 2015). These aspects make SD an efficient and informative approach to the measurement of meaning (Chaffee, 2001).

This was not the only approach taken to analyse the survey data, however. Complementarily, mean scores for each typology group were returned through the use of one-way ANOVA (analysis of variance), inclusive of the 'scheffe' option in Stata to simultaneously report inter-group type differences between mean values. The latter option thereby facilitated comparison (Hamilton, 2012). Using group typology as an independent variable, the mean values of a number of survey topics (treated as dependent variables) were explored across Radicals, Reformers and Conservationists.

These topics included: demographics; issue concerns and perceived threats to Nature where they live; general perspectives on images as communicative mediums; trust in democracy; and, amongst other aspects, protest participation rates. While ANOVA returned mean values, answer frequencies by typology were also computed through cross-tabulation. Taken together,

therefore, these additional approaches supported efforts to uncover more information about respondents which then enriched discussions of SD and interview data. Certainly, ANOVA is an additional and appropriate method which can be used within semantic differential studies (Skrandies, 2011).

6.4.2 Measurement

As a last and more specific elaboration upon measurement through the factor analysis, this approach was undertaken to judge the internal consistency, reliability and validity of the bipolar item scales involved in the measurement of image meaning. As discussed, this meaning was divided into two sub-concepts: Nature representation; and, image feeling. If the semantic differential's adjective pairs were found to form consistent, reliable measurement scales in line with EPA ideas and expectations, then greater confidence in the findings could by extension be held. This would suggest that the bipolar scales did measure what they were designed to.

The data of this project always returned the EPA structure proposed by Osgood (1979). They also positively reflected many of the related expectations relayed in Table 6.2, above. Consequently, confidence could be held in the scales designed to measure movement reception to imagery following RQ.3. This remained when examining the reliability (internal consistency) of the returned EPA factors. Here, most reliability remained above .70, with the lowest a comparably weak .55 (Image Two, Activity) and highest .91 (Image Four and Six, Potency). This .70 fell just below the threshold of Carmines and Zeller (1979), but was nonetheless acceptable. Chapter Nine and Appendix Five present these results.

Occasions existed where the consistency of individual scale items could remain open for further reflection and improvement in future studies employing similar methods. This included the production of an additional factor with lower reliability (Image Four, 'Knowing') and a number of scales for different images (see Appendix Five for elaboration). Additional factors regardless of reliability scores did not always contain three or more loaded items which has been suggested to be another indicator of measurement consistency (Krabbe, 2016). Overall, however, factor loadings were acceptable for most scales across the images.

Uniqueness scores provided through factor analysis were also considered, with these indicating the fit between item and factor according to the variance left unexplained by the latter. The higher the uniqueness, the less the item fits (Krabbe, 2016). Here, the vast majority of

uniqueness scores took values lower than .50, and so items enjoyed good fit under their respective factors. On the whole, therefore, the image measurement and subsequent results can be subject to a good degree of confidence. As noted, however, reliability is only one means to judge measure appropriateness with validity concerning whether a measure comprehensively measures what it should. Content validity is one form applicable to the present study (Krabbe, 2016).

This validity was arguably achieved through how identified factors met pre-defined expectations for scale groupings, further reflecting the EPA structure of meaning commonly found within SD literature. This structure therefore served as a point of comparison between this and other studies. Resultantly, the EPA-related factors returned could be seen to be congruent with intentions to measure the image as concept through the Nature representation and image feeling sub-concepts designed. On these bases, it was determined that the scales and their dimensions captured through the factor analysis would be 'adequate' and thus valid for the uses envisioned by the present study.

Lastly, standardised residuals indicating the presence of outliers or influential cases were considered (Bollen and Arminger, 1991). Exploring the residuals for each image's factor analysis did not return any overly large residuals with the 'unfamiliar-familiar' scale being an occasional exception. This scale also presented lower factor loadings or produced new factors by itself, and so questions about its reliability should be borne in mind. Indeed, this scale may have served as an outlier within the data, with these being able to produce additional factors (Bollen and Arminger, 1991).

Except this one scale, it nevertheless appeared that the factor model and data were appropriate to be used together. Indeed, similarly to other SD research, returned factors pertained to the EPA structure of meaning and met expectations for item-factor groupings (validity). Within these groupings, internal consistency (reliability) and uniqueness were further found to be acceptable on the whole. Specifically, image feeling was well-captured by Potency factors, while Nature representation was reflected by Evaluation. The outcomes of Evaluation, namely levels of encouragement, interest and informativeness, were also consistently grouped under an Activity-related factor. In short, through these tests it was determined that confidence could be held concerning the measurement of images and the adjective pairs used within this. Confidence in subsequent findings may thus also be held.

These results stemming from the above statistical approaches to understanding the data, with operations such as factor analysis and ANOVA performed using Stata, are presented in Chapter Nine. However, this survey data and the insights it provided will also be discussed in relation to qualitative perspectives gained through a number of supplementary interviews. Indeed, coupling survey data with complementary interviews or similar additional methods can help to further develop a rich picture of the topic of interest (Klandermans and Smith, 2002). This third and final method is now considered.

6.5 Interviews

Like with the survey, the small sub-set of images based on the content analysis were utilised for the interviews. Consequently, a series of semi-structured photo-elicitation interviews was held with movement group organisers and those responsible for (online) media content and production, alongside people with expertise in environment-based visual communications and framing.

This was to complement the main and wider-reaching survey approach, with both seeking to answer the question regarding how individuals within the movement understood and were affected by different types of movement imagery. The interviews held with organisers also enabled discussion of the possibly active decision-making processes contributing to image production and sharing. This in turn enabled insights into why certain groups and group types may select certain images over others, and how they perceive the imagery drawn from the content analysis under the perspective of the image-as-tool. Like the survey, it further produced important knowledge around how environmental and climate change imagery impacts upon and can be interpreted by movement-associated research participants.

To elaborate upon the nature of the interviews, they were designed to be semi-structured. An interview schedule was thereby developed in which questions intended to guide the discussion yet provide room for interviewees to explore and express their own ideas or experiences in an open-ended manner. Retained also were possibilities of follow-up prompts to delve into responses with greater depth (Blee and Taylor, 2002; Leech, 2002). This can occur around both the topics intended to be covered by the schedule, but also those which the interviewee raises themselves throughout the course of the interview (Berry, 2002; Blee and Taylor, 2002).

Similar can be said of the questions which specifically presented interviewees with images around which they were given the opportunity to explore their perspectives of the image and

the scene depicted. Through the explicit use of images within the interview schedule and questions to guide the discussion around these, the approach followed consequently included a central photo-elicitation element (see Collier, 1957; Gariglio, 2016; Prosser and Schwartz, 1998).

This allowed exploration into how movement actors and experts perceived the importance and relevance of certain depicted (and non-depicted) entities, as well as their inter-relation. It also helped to reveal how these groups and individuals value, understand or engage with 'Nature'; as is central to the project at hand. Moreover, whereas the survey allowed insights into images as images, thus exploring the actual content with respondents, the interviews presumed some degree of knowledge and expertise on the interviewer's part regarding imagery. In this way and as noted, a complementary and in-depth discussion of movement images specifically as tools designed for communication became possible and was therefore beneficial for the project at hand.

Certainly, interviews can provide appropriate means through which to explore interviewee experiences and emotions, as well as behaviours or worldviews, including in line with theoretical interests (Lamont and Swidler, 2014). They offer potentially rich accounts via in-depth answers to well-designed questions (Roulston, 2010). With the introduction of images directly into the interviews, another means of gaining deeper insights into participant understandings, meaning-making and emotions around the themes of interest are also made possible (Glaw et al. 2017; Chapter Two).

Interviews were conducted online through Skype which provided options to schedule calls and share a unique link directly with participants who can then join without the need for a Skype account. This platform allowed the geographic distance posed by the different case countries to be overcome, while still allowing the display of images as an integral part of the interview through the screen share functionality. Here, images were prepared using PowerPoint, with one image per slide up to a maximum of six slides. The exact selection of the images used was based on the interviewee's affiliation and/or work, and so made varying use of images previously embedded within the survey instrument, as well as more group- or interviewee-specific materials. These additional materials nonetheless conformed to the general themes identified through the content analysis (Chapter Seven, Nine) and involved, for example, a Swedish-specific protest and a disaster image from XR Sweden in an interview with a member of this group.

Aimed at complementing understandings produced through the central survey instrument, a total of *n*=8 interviews were conducted with these each lasting one hour, except in one case for which 30 minutes was possible for the individual. This overall number is in-keeping with those of King's (2006) study of activist reflexivity and Touraine's Subject (Chapter Four). The majority of these interviewees lived in the UK, although one interviewee was residing in Sweden and another in and around the United States. In terms of group membership, six were involved in XR and their predominance among interviewees is suggested to reflect not only availability for interview, but also the respective group type membership structures as was similarly discussed around survey distribution above. Meanwhile, one interviewee formerly worked within Conservationist organisations. This interviewee, as well as another, were experts in the area of environmental and climate change framing, including visually.

The data which emerged from these was used to explore and amplify that gained through the larger survey as supplementary and complementary insights. These interviews were not audio-visually recorded, although extensive handwritten notes were made around participant responses with these immediately digitised and securely stored like the other data. Paper notes were then destroyed.

For recruitment, case groups were emailed directly from the Principal Investigator's University of Milan email account in order to discuss the possibilities of arranging interviews. The emails contained information about the researcher, project and ethical considerations concerning data and its usage, for instance. They also asked specifically for the availability of those within the group who specifically deal with their (visual) communication. In this way, discussions of imagery specifically as communicative tools were possible; complementing the survey work.

In advance of interviews, participants were provided with and asked to read information and consent forms which detailed data management and use, plus other relevant ethical points. This included participant's right to withdraw from the study at any time, as well as anonymity and confidentiality. Meanwhile, at the start of the interview, ethical aspects were again detailed for the participant alongside an overview of who the Principal Investigator is and what the project they are entering concerns. They were asked whether they have questions on any of these points before the formal start of the interview. The nature of the questions, which focused upon issue perspectives, concerns, activist histories and roles, in addition to image interpretations, are indicated within the interview schedule contained in Appendix Six.

This schedule was used as a general framework with questions posed during interviews adapted for the specific group, participatory practices and work of each individual interviewee; similarly to the use of images at this stage. Doing so allowed interviews to be tailored to the interviewee with the intention of generating relevant and in-depth insights. At the conclusion of the interviews, participants were given another opportunity to ask about any aspect of the project or data usage.

Interview materials remained anonymous and interviewees are identified only by their group's name and/or a general description of their position, coupled with the date of the interview (a list interviews is compiled in Appendix Seven). No mention of names or personal information was included in any written work produced from this project. With consideration for participant ages, members of Fridays for Future and similar youth-led groups were not contacted for interview following the same logic as that described regarding survey participation above.

Reflecting upon the interview process, there were recruitment challenges with a number of groups replying to state that they had spoken to and/or passed the interview request onto relevant colleagues or members, but that these others were unavailable due to existing workloads. Alternative working arrangements which were felt to limit potential interviewees' ability to partake in the research as a result of the SARS-CoV-2 pandemic were also mentioned on a number of occasions.

The use of an online platform worked well in each case, however, and no problems were encountered in terms of connectivity and screen sharing for presenting image slides to participants. Discussions were found to be informative with all interviewees able to speak freely and in-depth about what they saw and felt around the images shown. There were no cases where interviewees expressed that they had no observations to make (which can be the case; see Collier, 1957, for example). For one interview, it was not possible to use images directly but discussions of images were nonetheless held following the questions set out in the schedule (for instance, 'Thinking still about the environment and climate change, have you seen or used an image which you felt was very powerful or effective?'). This was therefore similar to Nicholson-Cole's (2005) study where images were discussed yet not physically shown to interviewees.

Overall, therefore, no notable issues were encountered insofar as question comprehension was involved. The technology worked well and the images opened up the interview encounter for new and relevant insights to be raised by participants. Presented in Chapter Nine, the data

gained through these interviews effectively complemented the main focus of the analysis; namely the survey responses and the SD scales. At this stage, a summary of the above methodological discussion will be offered.

6.6 Chapter Conclusion: A Multi-Method Approach

To conclude this chapter, it has been suggested that the multi-method approach detailed provided a suitable and mutually complementary way to address the research questions set out at the start. Just as these questions built upon each other to comprehensively cover visual representations of Nature within movement imagery, so the methods also built upon one another in important ways. The content analysis provided the core basis from which to record the types of Nature images shared by groups, charting also convergence and divergence across different movement actors whilst drawing out their key thematic framings of Nature.

The survey began to take these images from the group level, and brought them in line with efforts to understand the individual-level effects of such imagery. Following this, the interviews were designed to cast light upon how these images were used by movement communication practitioners to complement the survey data. This thereby provided a means through which to intersect understandings of the different forms of Nature imagery used by movement actors (content analysis data), the intended meanings and reasoning behind their usage (interview data), as well as their reception by rank-and-file movement members as the end 'consumers' and targets for the imagery (survey data).

With data collected and analysed in the above manner, the specific ways in which the data was utilised under these approaches will be detailed further throughout the remaining chapters alongside a presentation of subsequent findings. The first data considered, therefore, is that stemming from the content analysis of the Nature images themselves. It is to this the discussion now turns.

Chapter Seven: Movement Image Themes

7.1 Introduction

The first of the analyses centred upon the first two research questions. These concerned the constructions of Nature present within movement imagery and, secondly, how far related image themes are shared among different group types. This chapter shall thereby examine these questions. It does so by initially providing an account of the pilot sample mentioned in the previous chapter. After establishing this basis, the application of the developed codes to the larger yet still representative sample across the four group types is discussed and core movement imagery themes identified.

7.2 Pilot Sample

To begin briefly with regards to the pilot sample, the intention was to use a smaller sub-set of image bank entries to develop a list of relevant, comprehensive yet exclusive codes. As Chapter Six relayed, the sample comprised n=48 images drawn equally from across groups and group types by following a stratified random sampling procedure. While largely inductive through identifying and refining codes based in the images themselves, this was guided in part by existing literature.

Table 7.1 sets out the areas and questions contemplated when analysing the imagery. The sources which informed these questions, to note, were those projects reviewed in Chapter Two and Three. The final coding schema which emerged as a result is presented in full in Appendix Three, with this also containing any slight revisions made between the pilot and full final sample coding processes. The ways and extents to which the codes were applied to this latter sample will now be considered. Throughout this account, codes are presented in italics while the overarching categories under which they were organised are denoted by bold italics within the main text.

Table 7.1: Questions Guiding Image Coding

Analytic level:	Guiding question:	Description:
Denotative	What is depicted (visible) in each image?	The entities seen to be present, such as people, animals, infrastructure, topologies, and their specific features (politicians, activists, demographics, land mammals or others and group sizes).
	What is the image form?	Still photograph, cartoon, illustration or meme.
	What is the image's composition?	Lighting, colours, spacing and other design aspects.
	What text, if any, is embedded in the image?	Presence of a textual element embedded within the image.
	What other supplementary text accompanies the image?	As captions, titles, not directly within the image.
	Where was the image taken?	Location of the depicted scene, such as forested, urban, coastal, rural.
	Where was the camera positioned?	The distance the camera is to the subject, or the emphasis it gives different entities (for example, foreground, above, below).
	Is scientific material present?	The presence of, for instance, climate science diagrams, claims.
Connotative	What is/are the intended or possible meanings?	What the image could be trying to relay.
	What issue, event or achievement is being highlighted?	Specific incidents such as disasters, vulnerabilities, politics, health, protest or similar.
	What entity interactions, ritual foci, and other activities appear to be happening?	The activities and behaviours of entities in fore- and background, and how are these portrayed (negative, solution, in- or out-group and similar).
	What understanding of Nature is conveyed?	The themes and ideas conveyed about Nature, like landscape, conservation, place threats/disruption, fragile/resilient, clean/dirty, wilderness, unintentional/curated.
	What possibilities for human-Nature interaction are presented?	Including behavioural suggestions for audiences.
	Is there a moral shock affecting cultural sensitivities?	The use of emotionally-striking or gruesome imagery.
	Is there an attempt to satirise issues or individuals?	The use of comedy in messaging.
	How do the depicted entities or objects relate to or exist in tension with absence?	Absence as entities omitted or minimised within an image, and how these interplay with what is included or emphasised.
	Is the image 'iconic', or otherwise employs a synecdoche?	Whether the image is considered to be a prominent or central representation of climate change, for instance.
	What timescales are being represented?	Past, present or future, as well as dystopic or utopic futures.

7.3 Code Patterns

7.3.1 Image Composition

Within the compositional-related section of the coding scheme, still photographs were by far the main image *format* present within the final sample, although just under a quarter of the sample was comprised by illustrations. Comparably, cartoons were rare but present. Marking the first break from the pilot sample, no memes were captured and an 'unclear' sub-code was introduced for ambiguous images which crossed or defied established categories. To explore this overall trend, the tendency towards the photographic form was present across all group types and countries without exception. Illustrations, too, were consistently the next most frequently employed form. Conservationists almost exclusively utilised photographic mediums in their online communication, and were not observed to adopt a cartoon style unlike the other three types which were in-keeping with one another in terms of cartoon frequency. Demonstrative Outsiders and Radicals, meanwhile, appeared to select illustrated images to a greater extent than the others. Occurrence frequency for the various mediums remained consistent when examining cross-country patterns.

Chromatically-speaking, 98 percent of the final sample was made up of full *colour* images and none solely used black and white. The remaining percentage involved images combining colour and monochrome elements. The vast majority also presented their subjects in colours which reflected the *naturalness* of pigment seen through the human eye without the mediation of a camera or illustrator (c.f. Image 7.1). This was seen to be the case across all group types and countries without divergence, and Conservationists never used what could be deemed as more unnatural colours. For images where a *camera* was used, closer positioning to the photographic subject was more frequently employed than shots from a greater *distance*. Nevertheless, following a country comparison the differences between closer or more distant photos was minimal.

The picture was pronouncedly different with the main typology-oriented comparison. Here, while the overall tendency towards close-ups naturally remained, Conservationists notably emphasised closer cameras; and this was visible in 74 percent of applicable, camera-using images. The trend was however reversed for Radicals who more often took pictures at a distance from their central focus. The close-distant positioning was not so stark for the remaining two group types. Relatedly, and with regards to the camera angle insofar as whether it was *level* to the subject, being on the

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same height level was indeed most commonly found and equated to half of the full final sample. Figures across groups and countries were here in-keeping, with the UK presenting the only notable difference with a lower number of off-level angles employed.

Image 7.1: Unnatural Colour, Cartoon, Flooding
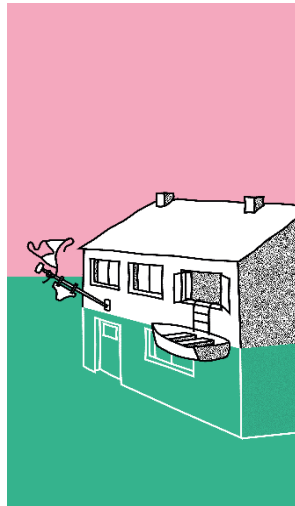
Note: A rare example of unnatural colours being used, here within a Demonstrative Outsider-commissioned cartoon which takes flooding risks in domestic contexts as its core issue focus. *Source*: FFF Netherlands, Instagram, 31st May 2020 / "Reddingsboot", Creative Beards (reproduction with email permission from Creative Beards).

Two-thirds of images contained **text**, and this was particularly *present* among Radicals and Demonstrative Outsiders, as well as among imagery from the UK and Sweden. Conversely, the distinction between presence and absence was relatively evenly drawn for Dutch images as well as those from Conservationists; both of these with a marginally greater prevalence of textless visual materials among the sample. With regards to the form of text where included, it was most often not in a *central* position within the image overall. Across groups, however, this was slightly more or equally frequent for Demonstrative Outsiders and Radicals, while appearing only minimally from Conservationists. Greater consistency was nonetheless visible with respect to text being in *bold and/or capitals*, and in the inclusion of *affordances* such as #hashtags and @user. Specifically, there was a general and mutual trend towards the use of bold, capital lettering as well

as a shared infrequency concerning affordance use (Image 7.2). The latter aversion was notably clearer with Dutch or Reformer imagery, while bold and capital text was always used for images from the Netherlands.

Image 7.2: Capital, Bold, Off-centre and Edited-in Text

Note: A positive framing of human actions (tree planting) upon animal life with the text as the primary producer of meaning and understanding within this image. The animal thus formed a decorative background (see below). *Source*: UK WWF, Instagram, 19th August 2020 / "Orangutan Conservation", Alain Compost/WWF (reproduction with email permission from WWF UK).

Here, it is understood that the positional centrality and boldness of textual elements both serve to draw attention to the text and so render it of primary importance to any given image. In this way, such text could perhaps be seen as serving as cues or aids through which the viewer could be directed in their interpretation of the image and its associated message as part of a mixed visual-textual meaning-making (Benjamin, 1969[1935]; O'Neill, 2019). That said, it is suggested here that such a use of text may re-emphasise the primacy of textual communication with the added potential to draw significance or polysemic characteristics away from the image. The end result of this is arguably the rendering of visual depictions of Nature as decorative backgrounds within a primarily – if not exclusively – textual message. Indeed, this neutral and decorative use of images

to provide a backdrop to text was uncovered in 22 percent of the full sample's imagery, and 19 percent of the pilot; a significant feature. As considered below, Nature used in this background manner underlined a continued importance for text-based communication, even alongside the use of more visual mediums such as still photographs or illustrations.

Also important to the potential scope and understandings an image may have is the *language* of textual elements. Reflecting the presence of UK-sourced imagery which only used English, plus its usage by Dutch and Swedish groups, English was the main language for text. This was the case across countries and groups, although Sweden largely used Swedish (making this language the second most common within the sample), as did Conservationists who were also the only group type never to use Dutch. The use of English in non-UK images may point towards a more international audience focus from Dutch and Swedish groups, but without necessarily compromising comprehension at home given general language capabilities among domestic populations. That said, language is not necessarily central to international understandability, engagement, nor adoption.

This is what Doerr (2017) highlighted through charting an image's international diffusion across country borders and linguistic barriers. The image was simple yet clear in its messaging, with this explicated further by the text which additionally guided viewers to vote for a particular political party should the message resonate (recalling Box 3.7). This was a situation in which the text is potentially more supportive of the image than the other way around. It certainly did not appear that the image deferred its own meaning-making power to decorate a dominant textual element. In short, while the text language changed in Doerr's (2017) investigation, the original message embodied within the image and thus the image itself transcended any barriers to understanding posed by language, and remained the locus of meaning.

Lastly, there was an even split between instances where text had been *edited-in* to an already produced image (as with Image 7.2 above), to those where text was a feature of the image at the point of its original production (including in illustrations or on objects depicted in photographs like protest signs). Although there was not much difference overall, Sweden and Conservationists went against the general trend of the others by sharing more images with text which had been edited-in.

7.3.2 Entity Depiction

Beyond the compositional, ***location*** was also examined. Many images did not present clear locations (sometimes due to close-ups of animals which restricted the view of the surroundings, for instance), or did not present any location at all as was found with a number of illustrations. In total, unclear or wholly absent locational information accounted for 34 percent of the final sample. Of those presenting identifiable places, one-quarter fell under an 'other' category and, as returned to regarding icons later, many of these concerned Blue Marble-style imagery. Rural, coastal and underwater scenes were present but not to a great extent, and none were shared by Demonstrative Outsiders. Radicals did not use the latter either. Urban settings were more frequent in occurrence, particularly from Radicals, with this reflecting a notable presence of protest imagery (discussed below). More frequent still was forest imagery, represented by 25 images, or 17 percent of the full final sample. This was engaged with by all group types and especially by Conservationists which was an interesting finding since their imagery was without forest fires (wildfires) despite this higher proportion of forest imagery. Fires were notable among other group types. This issue focus shall be elaborated upon later in this chapter. Finally, every location category was covered by each country.

No images focused solely on the past were uncovered, with a majority centred on the present and numerous looking towards the future, although not from Conservationists. Here, a present ***tense*** was assumed where evidence to the contrary was unavailable within each image. Drawing on Milkoreit's (2017) discussion of utopic or dystopic *future* imaginaries, this was considered as a sub-code category. Within this, most future-focused imagery was neutral along these utopic-dystopic lines. Where discernible, however, Radicals and Demonstrative Outsiders leant overall towards the dystopic but still shared utopic depictions, too.

The dystopic is exemplified through Image 7.3 which shows drought-hit land (a climate icon; see below, also Box 3.3) where the image could be understood to show a contemporary situation. However, through the text which can also be viewed as being in a present tense, a negative consequence of policy decisions in the present upon the future is subsequently suggested (albeit lightly framed through the use of exclamation).

Image 7.3: Dystopic Future, Icons, Edited-in Bold Text, Affordance Use

Note: A risk of drought presented as a negative, dystopic future outcome of climate inaction in the present. This is coupled with bold text, a policy focus, affordance usage for a campaign and the Blue Marble icon as part of the group logo. *Source*: FFF Netherlands, Instagram, 22nd May 2020 / "Change the CAP", FFF Netherlands (reproduction with email permission from FFF Netherlands).

Following this, the presence or absence of ***moral shocks*** and ***action guidance*** was taken into account. Understanding moral shocks similarly to Baele et al. (2019; also Jasper and Poulsen, 1995) as comprising either a gruesomeness or humanised pain and suffering, they appeared only twice and both times from Dutch Conservationists. Action guidance was slightly more common with six relevant images within the sample. This involved clear comments informing the audience regarding steps they could take to be involved with or otherwise promote climate or environment-positive activities. These six instances were from all group types and nations bar the Netherlands.

Referring to Chapter Three, moral shocks could be important insofar as they evoke strong affective and normative reactions, as with the images of humanised animals suffering researched by Jasper and Poulsen (1995). These authors noted how such shocks can spur people into action, including protest participation. Clear guidance regarding feasible activities individuals can undertake has been deemed to also be important since it may motivate actions by suggesting them to be worthwhile and not, as Manzo put it, a 'drop in the ocean' (2010b:203). However, these features

were predominantly absent within the final sample. This indicated that they are little used by groups regardless of the potentials they have been attributed within the academic literature.

The next code family related directly to a core element of climate change visual studies, and namely to '*icons*'. Within Chapter Three it was pointed out how authors such as O'Neill (2019; also Chapman et al. 2016; Manzo, 2010b; Rebich-Hespanha and Rice, 2016; Wang et al. 2018) observed the frequent use of particular images to communicate climate challenges by mainstream media, and how these images subsequently began to serve a synecdochic function for wider issues. In particular, highlighted were a number of icons including smokestacks representing industry and pollution, dry and cracked land signifying drought, scientific diagrams of temperature rises, plus – and arguably more notably – images of polar bears and/or ice melt (Box 3.3). Interestingly, these latter two icons did not occur within the pilot sample despite the emphasis placed upon them within existing scholarship. They were nevertheless encountered within the larger final sample, and so polar bear and glacial melt were incorporated into the coding schema accordingly.

To elaborate on the final sample's engagement with iconic imagery, icons were *present* in 28 percent; spanning across all countries and group types. There was a sizable input from Demonstrative Outsiders here, for whom iconic images outstripped the non-iconic by 69 to 31 percent of their sampled imagery, respectively. Indeed, higher icon presence than absence was visible only with this group type. To expand on the *form* of these icons, the 'classic' synecdoche of smokestacks, polar bears, ice melt and drought-hit land were uncommon. Polar bears appeared the most among these, yet only in four percent; the others accounting for one percent each.

This is in itself interesting given the prominence placed upon these icons within climate-related studies of visual materials, discourse and framing. To elaborate on the presence of polar bears as chief among these icons, four out of the six images came from Reformers with one from Radicals and, when coupled with ice melt within a single image, Demonstrative Outsiders. This indicted no engagement from Conservationists and only limited engagement from the other two group types besides Reformers. Regarding the concurrent country breakdown, polar bears were absent from Dutch imagery and mainly originated from Sweden (five images).

Greater than these, however, was the presence of Blue Marble-style representations of planet Earth from space (Image 7.4). Forming 20 percent of the full final sample, variants of this icon were seen across every group and country. This proportion differed with prior research's findings,

including that of Rebich-Hespanha and Rice (2016) where the Blue Marble accounted for only six percent of their US media image sample of 350 images. Certainly, the prominence of the Blue Marble is suggested here to be linked to the engagement this icon has found among Demonstrative Outsiders. It should be recalled, therefore, that Fridays for Future adopted a central and internationally-shared logo based on the Blue Marble view of Earth.

With the Blue Marble also dominant among all icons within the pilot sample, questions can be raised around its possible effectiveness as a movement symbol. This is because it presents a view of – or, detached gaze upon (Rebich-Hespanha and Rice, 2016) – the world which is arguably abstract and unrecognisable against people's everyday lived experience. Resultantly, this image may not galvanise attention nor create clear understandings of how the issues promoted through and around this icon are of immediate importance for viewers. Certainly, it may also fall short of providing a sense of efficacy around individual actions given the vast and abstract global scale that is presented, linking to comments around the absence action guidance (above; Chapter Three).

Image 7.4: An Original Blue Marble View

The Blue Marble icon which shows the Earth from space in still photographic form. *Source*: "The Blue Marble", NASA Marshall Flight Center (CC BY-NC 2.0).

Continuing with the entities captured within images, **industry** was examined. *Present* in the sample but not to any great extent, representations of industry were discovered among all group types and countries which shared similarities in the low occurrence frequency. Where pictured, industry was almost exclusively the *main focus* and never in the *foreground*, bar one instance from a Dutch Conservationist organisation. Differing from the pilot sample, the only industry *form* depicted was fossil fuel and extractives; the final sample excluding reference to agriculture, aviation and any other possibilities. Industry accounted for only four percent of the total sample and so appeared to not be a predominant entity within the environmental and climate movement's visual materials.

This can again be contrasted against the 15 dominant visual frames proposed by Rebich-Hespanha and Rice (2016) in which industry impacting upon the environment, and agriculture as a specific industry type, were more prevalent within their image sample (standing at nine and ten percent, respectively). This was interestingly raised through Box 3.3's example imagery and particularly regarding the industry image contrasting a non-belonging fossil fuel development in the background against a seemingly more 'natural' or belonging agricultural scene in the foreground (Chapter Three).

Notably more common, however, were **animals**. These were *present* in just under half of the final sample (47 percent). While there was little difference in animal presence and absence both within and across countries, as well as between Reformers and Radicals, 78 percent of Conservationist imagery contained animals. 86 percent of Demonstrative Outsider images did not. This was the clearest difference insofar animal inclusion was concerned. Regarding their depiction when included, they mostly formed the *main focus* of the images, but not for Radicals or Demonstrative Outsiders. The latter of these, to restate, rarely showed animals within their visual materials. For the Radicals, meanwhile, although 47 percent of their images did include animals of some description, their inclusion may largely reflect the more general use of Nature as a decorative backdrop.[20]

Relatedly, it was also more common for animals to be depicted in the *foreground* across all countries and groups with the exception of Radicals, perhaps again on basis of their usage as backdrops for text. In the latter sense, and recalling again the above, this may indicate a reliance on text within Radicals' (visual) communication, which could reduce the meaning-making or

evocativeness of the image and Nature representation. The use of colour was also interesting in these Radical images, and this characteristic is explored further in Chapter Nine.

To continue regarding animals in movement Nature depictions, it was less frequent for there to be *more than one* animal in an image, although the difference between single animals or those in groups of two or larger was not overly great (a ten-image difference in total). This aggregate trend was reflected across group and country breakdowns. Next, whether the animals made *audience eye contact* was considered, with this found in eight percent of the full sample (Image 7.5). Most of these came from Conservationist organisations. The making of eye contact between animal and viewer could here be understood as an effort to bring the two into closer relation with one another; perhaps as a humanisation aimed to encourage donations.

Image 7.5: Animal Eye-Contact

Source: "Wild mountain gorillas at Volcanoes National Park in Rwanda", UNEP (CC BY-NC-SA 2.0).

Lastly, the animal *form* (species) was coded. Here, a range of broad animal types were covered, from land mammal and avian, to insects and aquatic life. The first two of these were the most common, comprising 17 and 11 percent of the full final sample, respectively. Reformers and Conservationists particularly engaged with the former while all identified forms were present across the three countries. Although avian referred to birds specifically, land mammals incorporated hogs, foxes, tigers and polar bears, amongst others.

Meanwhile, concerning **people** they appeared more frequently than industry, but less than animals; being *present* in 18 percent of the sample. The figures here were consistent across types and

countries although Conservationists showed people notably less. Overall, where shown they were slightly more likely to be both the *main focus* and situated in the *foreground*; the latter exclusively within Demonstrative Outsider imagery. Regarding whether *more than one* person was depicted in an image, this was more common overall than individuals alone. This was particularly the case with Radicals and may reflect their greater focus on protest as a primary issue; this thereby involving images of activists. Both of these last points shall be taken up below. Except for three instances, *audience eye contact* was absent.

Comparatively regarding a recent Twitter-based study of climate-related imagery, it has been found that people were more frequently depicted than was the case with the present research's sample; with similar also being true of protest and solutions imagery (León et al. 2022). However, in the case of this other study, the focus of data collection centred solely upon tweets with the highest number of interactions (retweets and comments) irrespective of the profile posting the image (León et al. 2022). Consequently, caution should be held since the images argued to increase climate image salience or engagement could instead reflect the popularity and number of followers of the posting profile on the platform; more so than is the case with the present, more targeted, project.

Moving on to the *type* of people shown, there was little variety. Indeed, accounting for nine percent of the total sample were activists or, more applicable in the Conservationist case, volunteers. Here, the sub-code developed originally with the pilot sample was renamed to include activists *and* volunteers; moving away from mention of the former only since groups do not depend solely on activists.[21] This was the only category to receive engagement from every group type and country alongside that labelled 'unclear'. There were no journalistic actors shown, and business persons appeared only once in a Swedish Demonstrative Outsider image. As indicated above, Radicals showed activists more frequently than Reformers, and equally to Demonstrative Outsiders. Again, this arguably corresponded well with the high levels of protest-related imagery produced by both group types and so was unsurprising.

Visible demographics for people were discernible in 13 percent of the final sample. Most were *white*, and exclusively so for Radicals and Demonstrative Outsiders. By contrast, people were solely non-white in images from Conservationists and mostly non-white for Reformers. Regarding

gender, most were female; again exclusively from Radicals and Demonstrative Outsiders. In addition to this comparable absence of *males*, older persons were shown less than the *young*.

With this, it is unsurprising that the majority of younger people were found among Demonstrative Outsider imagery since this is a particularly youth-led and focused group type within the climate movement. While remaining open for investigation, it has been noted by scholars how the demographic characteristics of those shown in images can influence the disconnect felt between the people in the image and the audience (Rebich-Hespanha and Rice, 2016; also Macarthur et al. 2019). In this sense, charting the demographics of depicted persons and the impressions received by an audience could be relevant and interesting, while again reflecting issues of relatability and distance.

This once more marks a point of comparison with sections of climate communication literature, and in particular to the content analysis of Rebich-Hespanha and Rice (2016). As before, there was an observed difference insofar as the frequency of people's occurrence within climate imagery was concerned; present in no more than 13 percent of the authors' sample, and higher at 18 percent here. While this difference existed, the point of departure is larger and concerns a more fundamental conception of these actors.

To elaborate, the authors suggested that depictions of 'regular' persons, including activists explicitly within this, present them as not being involved in the definition of issues themselves and thus being reliant upon 'the actions and definitions of those who are empowered to define problems and possible solutions' (namely institutional others such as politicians; Rebich-Hespanha and Rice, 2016:4841). The authors further suggested that related imagery may consequently feed into perceptions of limited self-efficacy and disempowerment to act among image viewers. However, the orientation of the present project is diametrically opposed to this. It provides instead a conceptualisation from which it is possible to understand non-governmental and, in particular, movement groups and members as directly involved in meaning-making and issue framing (for instance, Chapter Four).

7.3.3 Issues of Concern

Building understandings of imagery form and shape within the final sample, the **_primary issue_** conveyed was recorded. Following the pilot, this began first by an initial categorisation which was then broken down into a series of more specific sub-codes (Appendix Three). This first categorisation of issues, to elaborate, sought to identify whether an image concerned direct societal harm to Nature, general environmental disasters, other or, if necessary, an unclear issue focus. These will be considered in turn.

Beforehand, however, while overall much of the sample did not have a clearly identifiable issue, 34 percent of the sample fell under the 'other' category. Societal harm followed, with environmental disasters not depicted as directly the outcome of human activities (although sometimes implicit under a broader climate change frame) being slightly lower insofar as aggregated frequencies were concerned. The issue *form* figures thereby showed that the single category with the largest representation within the final sample was that of 'other', both across countries and group types. Conservationists were the only group to not engage with every issue type, excluding environmental disasters from among their imagery.

In terms of issue *scope*, just over half of the final sample presented domestic or otherwise nation-specific issues, while over one-quarter provided a wider global or international viewpoint. The remainder were unclear. Groups and countries were in-keeping with this overall orientation towards location-specific issues, although the trend was reversed for Demonstrative Outsiders. As has been mentioned, this is suggested to relate to the usage of a Blue Marble (thus a globally-oriented) icon, including through its adoption as the central FFF logo.

The apportioning of *accountability (culpability)* for depicted issues was also accounted for during coding. On the fairly rare occasions where a clear designation of accountability existed, industry was the main focus followed by political actors (eight and five percent of the full sample, respectively). Politicians were not depicted in this way within UK-sourced imagery, but they were within the other nations'. A 'mixed' sub-code was here expanded to include 'other' in response to more general attribution of responsibility to actors or populations which was absent from the initial coding schema (accounting for four percent of the final sample).

Typology-wise, every group type placed some degree of accountability on both industrial and political actors. Reformers and Radicals together made most of the mentions to industry. Radicals, meanwhile, were the only type to place culpability on business figures, although this amounted to a single instance. Interestingly, then, while industry and politicians have been generally highlighted as culpable for the issues being visually represented, the vast majority of the sample provided imagery without a clear accountability theme.

This is interesting for at least two reasons: firstly, since most groups under the typology engage actively in environmental and/or climate-specific campaigning, the identification of clear targets against which claims are made would be expected. Indeed, recalling Chapter Four a movement can be conceptualised with explicit reference to its juxtaposition or conflict against a clearly defined opponent. However, it was uncommon for such actor identification to be present within the observed visual materials, as well as for counter-claims to be made against them by extension. Secondly, this absence of what Touraine (1985; amongst others) suggested to be core movement feature indicated that the visual communication of Nature and related issues may on the whole appear to be more general than conflictual.

Put differently, it may not be explicitly oriented towards initiating or maintaining a conflict or challenge against other actors – institutional, industrial or otherwise – over a defined issue area. This has further ramifications for how the studied movement groups could be understood as attempting to build beyond culturally constructed notions and understandings of landscape with the view to recognising what Latour has referred to as a 'New Climatic Regime' and the possible responses to it (Latour, 2018; Latour et al. 2018).

In this sense, and while movement imagery can still raise awareness of the issues they capture, there does not appear to be a specific conflictual element within this. Such an element could challenge the logic and behaviour of actors, however defined, with regards to overcoming problematic human-Nature relationships linked in turn with climate change and environmental degradation. Put differently, the lack of conflict may denote limited challenges to longstanding Nature constructions and interactions; falling short of attempts to supplant a landscape framing with a new perspective aimed at reorienting knowledge/truth, investment/production, and ethics/morals (Touraine, 1985). Indeed, this was postulated as potentially being part of the development of a new society in which human and non-human interrelations, problematically

encapsulated in environmental crises, may take shape beyond the status quo of landscaped practices. This could have been symbolically constructed through the use of images as cultural artefacts and framing devices (Latour et al. 2018; Touraine, 1985).

Returning again to images' issue foci, regardless of the identification of an 'Other' and conflict against them, *direct societal harm to Nature* formed another family of codes. Here, a range of challenges were captured within the final sample with relative parity in occurrence frequency. This included pollution (broadly defined), policy, energy and mining, global warming and a mix thereof.

Deforestation was present in only one percent of the sample and solely from Dutch groups, while desertification which was present in the pilot was absent. At five percent of the total sample, global warming was the most frequently conveyed issue among these, yet only by Radicals and Demonstrative Outsiders; and predominantly those in Sweden. Radicals engaged to the same extent with policy questions around which Reformers were the only absent group, with these focused more on pollution than any of the others (as was their original central issue upon establishment in the 1970s; Saunders, 2012). This related to how there were no pollution-linked images found from Conservationists or Demonstrative Outsiders, and only one from Radicals. Pollution, to note, accounted for three percent of the full sample; the same share as policy.

Turning towards the next category of *environmental disasters*, where images do not directly relay any underlying human causes or influence, wildfires were engaged with the most by all group types except Conservationists which never engaged with disaster depictions. Indeed, this was the only disaster-related sub-code category dealt with by Reformers and, except one mention of flooding, by Radicals, too. Other group types did not cover flooding bar Demonstrative Outsiders which was the only type to make visual reference to drought (presented earlier with Image 7.3, for instance). For Demonstrative Outsiders, engagement with wildfires, flooding and drought was equal. Country-wise, all engaged most with wildfires although there was no flood-based imagery from the UK, nor drought depictions from Sweden.

To elaborate upon this wildfire theme, it was noted earlier how Conservationists shared a high proportion of forest-related imagery. The absence of wildfires in these environments perhaps suggested a focus on the picturesque. There was, put differently, a perceivable avoidance of vulnerability and threat themes which provided a contrast against the wildfire engagement

demonstrated by the other group types. Reflecting discussions in Chapter Four, this finding may indicate the continued adoption of a landscape construction and subsequent viewing of Nature which renders environmental degradation and dangers invisible through focusing upon aesthetic appeal. In this way, typology expectations around group type image preferences would also seem to have been supported.

Continuing with the remaining codes, while a range of issues fell under the *other* category within the pilot sample, interestingly the number of areas covered within the larger final sample reduced. To elaborate, themes of justice, human health and greenwashing were absent, whilst there was only one image concerned with Covid-19 (from Swedish Demonstrative Outsiders), and one regarding economics (Dutch Reformers). The dominant categories overall were protest (20 percent of the final sample) and conservation (12 percent). Regarding the former, it was notably most frequent among Radicals (12 instances) and Demonstrative Outsiders (13 instances), compared to Reformers (4 images in total). Conservationists did not engage with the protest theme but instead – and unsurprisingly – directed their attention to conservation matters (13 images). While all other group types provided imagery concerned with conservation, it was to a comparably infrequent extent.

These group issue orientations regarding protest and conservation was telling of the typology and perhaps supported Saunders' (2007a; Chapter Five) suggestions around Conservationists' place within the environmental and climate movement. To elaborate, Conservationists were concerned more with conservation and never with protest, while less institutionalised group types demonstrated a clear orientation towards protest imagery. Meanwhile, and combining institutionalised characteristics with engagement in 'radical' protest forms, Reformers were found with an almost even engagement between protest and conservation issue areas. This therefore seemed to confirm the assumptions latent within the devised typology and, by extension, some of the observations made within the social movement studies literature.

In this case, then, the typology employed for this study appeared to facilitate interesting comparisons and contrasts between specific movement group categories which further fell in line with certain expectations. For instance, Conservationists engaging far less with protest themes and thus being juxtaposed against the lower institutionalised groups while Reformers fell somewhere

in-between. All countries engaged with protest and conservation, with the main difference being between the Netherlands and Sweden regarding the latter (three and nine images, respectively).

7.3.4 The Overall Portrayal of Nature and (Symbolic) Representations

Moving onto the final two sets of codes, the overarching visual representation of Nature, plus the use of additional symbolism, are to be examined. Starting with the former, **Nature** was more commonly shown to neither be *clean* nor dirty, and neither as *intensively managed* nor wild. Regarding cleanliness, when it was relayed it was more common for Nature to be shown as clean rather than as dirty (33 percent to six percent within the full final sample). This clean theme was notably and especially the case for Conservationists, although the presence of dirtiness was fairly even across the types (Conservationists sharing less imagery that was 'neither' clean nor dirty).

Regarding the extent a more managed Nature through agriculture or curation for leisure was concerned, less managed scenes were prevalent compared to managed environments (26 percent compared to nine percent). Conservationists again showed less managed Nature more than other groups, yet there was equality in the conveying of managed environments across all types with the exception of Demonstrative Outsiders which showed this type of Nature to an even lesser extent. While most group types had a clearer orientation regarding cleanliness and intensive Nature management, Radicals differed in this regard by holding a fairly even split between cleanliness/dirtiness and intensively managed/wild.

Recalling the work of Buijs et al. (2009; also Van den Berg and Koole, 2006), a higher proportion of wilder Nature or, at least, Nature less visibly touched by human practices, would seem to reflect a more general Western construction of the environment and the associated landscape preferences. Through meeting such a preference, movement imagery could be seen to partially reproduce a cultural landscape aesthetic and way of seeing, or perhaps even notions of wilderness; themselves a particular and potentially problematic cultural construction (Brígido-Corachán, 2017; Cronon, 1996).

At the same time, however, a theme of *vulnerability and threat* was found in one-third of all final sample images; a notable usage. While less common among Conservationists, the other three types equally engaged with this theme. All countries, but particularly Sweden, relayed this framing, too.

Similarly to the pilot sample, this code was understood to relate to the presence of either environment-specific vulnerabilities and/or threats to humans from Nature. Such a vulnerability-threat theme was well-reflected by wildfire imagery.

Before this, and with a slightly different depiction of Nature, the presentation of Nature within image backgrounds existed in just under one-quarter of the sampled imagery. To elaborate, the use of Nature as a *decorative backdrop* was found among all group types and countries, but especially from Radicals and Demonstrative Outsiders. Indeed, as with the above protest issue focus, Conservationists represented the opposite position with comparably less engagement compared to the two aforementioned types, with Reformers falling in-between.

As will be expanded upon later, the use of Nature as a decoration accompanying a dominant textual element may arguably represent the constraining of imagery's potential as a communicative medium in its own right. By extension, this reduction of the image's own voice as a secondary accompaniment through the inclusion of text may also be understandable as constraining too the role of Nature within the communication. It may in other words render the natural as a more passive object within the overall image composition. This has potential ramifications for the ways in which movement imagery may be understood to offer challenges to landscape constructions of Nature in which it becomes a passive, external material gazed upon and cognitively understood by the active human subject wielding agency.

Remaining with the 'Nature' code family, however, another representation uncovered was the use of natural elements as *protest symbols*. Like Nature's use as a decorative backdrop, its adoption as a specific symbol of protest was common – this time exclusively so – among Radical and Demonstrative Outsider imagery regardless of nation. Consequently, this form of visual representation was present in nine percent of the final sample and so was not the most prominent feature compared to the related sub-codes discussed in this section. Nevertheless, it was found to be present through FFF and XR images in particular. Regarding FFF, this Nature-as-protest-symbol feature was visible through the use of Blue Marble iconography as the central part to these groups' logo which subsequently occurs on their protest materials.[22]

For XR, this particular climate icon was also used on placards during protests and thus captured by imagery of such events. Additionally, however, XR repeatedly used illustrations of a bird and a bee as icons representative of their group and activities. While also captured on flags and placards

used at protests, these illustrations further accompanied a central text-based statement in a number of images, too. Consequently, this was one of the ways in which Nature appeared as a decorative backdrop in which such symbolic animals frequently employed by XR groups – national or local – could arguably be seen to become secondary to the communication and meaning offered by the text. Again to be mentioned below, the use of the bee illustration within XR imagery and protest material holds an additional symbolic element as a conveyor of extinction threat.

Speaking more directly to the project's overarching interest in the extent movement imagery could be seen to extend beyond Western landscape perspectives, the conveying of *aesthetically beautiful* Nature was also recorded (Image 7.6; Box 3.9). This perspective, to restate, can be understood as constraining the values, knowledge and interactions possible within human-Nature relations. Here, 13 percent of the final sample pictured Nature in this way; highlighting the visual beauty and appeal of Nature as an enjoyable, clean landscape distinct from society and social influences. In terms of how far this was relayed by the respective group types, the differences between the types are in-keeping with one another overall, with the largest gap once more being between Conservationists and Radicals; the other two types falling squarely in-between.

Image 7.6: Nature as Aesthetically Beautiful

Note: A clean, picturesque forest scene similar to those seen to be shared by Conservationists and Reformers through the content analysis. *Source*: "Untitled", Васильева Елена / UNEP (CC BY-NC-SA 2.0).

The last sub-code of this family asked whether Nature was depicted as a *subject of science* or, put differently, as an object of learning and fascination. By posing this question, only four percent of final sample images reflected more objective and factual Nature representations. With the exception of Reformers which never shared related imagery, inter-group type differences were minimal but sourced more from Swedish groups. Regardless, the frequencies by group type, country and overall were minimal, thus indicating that renderings of Nature specifically as an entity to study is uncommon in the visual communication of the environmental and climate movement.

As alluded to above, ***additional symbolism*** existing within image framings was considered. Firstly, additional symbolic elements were found to be *present* in just under one-quarter (23 percent) of the final sample; indicating an added layer of meaning-making was fairly common in movement imagery. That said, most symbolic sub-categories occurred minimally throughout the sample. These included the use of *symbolic colour* (Doyle, 2007; Manzo, 2010a). Specifically, red was a central colour, serving to indicate global warming but also the presence of wildfires. In one example of this, red was applied to a satellite image of South America to communicate to the viewer the large geographic scope of fires in the Brazilian Amazon.[23] Subsequently, and reflecting the colour red's significance in certain cultures (including Western), it here denoted both heat reflecting globally increasing temperatures, as well as fire and perhaps also a general danger given the colour's connotations (Gil and Le Bigot, 2016). As noted, this was one of the uses of symbolism which did not enjoy frequent usage, occurring in two percent of the sample.

An exception to the uncommon nature of additional symbolism was, however, *extinction*. Here, 15 percent of the sample contained some form of symbolic reference to extinction. Perhaps unsurprisingly given the name 'Extinction' Rebellion, Radicals comprised the vast majority of these occurrences (19 out of 21 relevant images); Demonstrative Outsiders accounting for the remainder. As mentioned above, extinction was relayed through the use of animals and, in particular, the bee as a natural entity which is symbolic of extinction through the species' dwindling numbers and its role as a major pollinator. In this sense, the bee could be understood to be used as a visual synecdoche, symbolically referring to a wider issue in a manner not dissimilar to the polar bear's function as a synecdoche for global warming.[24]

However, within XR groups' imagery the bee was not the only symbol of extinction, with this animal joined also by human skull and hourglass motifs; both frequent within their social media visual materials.[25] The latter of these forms XR's central logo, underlining the extinction symbolism coupled with a sense of urgency since hourglasses are denotive of time reducing. Extinction and the use of visual symbols to this end could therefore be seen to feed directly into XR's identity construction as a radical climate protest group.

After extinction, the second most frequent use of symbolism related to a *humanisation of Nature*. Through this, attempts to bring natural elements closer to the audience through attribution of human emotions or features were visible (see Image 7.5 which showed a parent and child scene, both looking at the camera and, by extension, the viewer).[26] Appearing in seven percent of the final sample, all group types except Demonstrative Outsiders used this means by which to frame Nature. Considered also was the presence of *symbolic violence to Nature*. In the final sample, this was a rare occurrence; relayed by a single image from Conservationists, and one from Radicals.

To elaborate on this from the final sample, one image from WWF Netherlands presented viewers with a number of wild animals being kept in small crates and cages upon a concrete floor; the conditions and forced confinement here symbolising violence although humans are not directly pictured in this image concerning the illegal wildlife trade (an issue focus clarified by text accompanying the image in the original post). Meanwhile, XR Sweden shared a cartoon with a complacent human-esque character next to a humanised, angry and confrontational sun and bird demanding immediate action in English while a bee lies dead and a flower – again humanised with facial features and emotion – recoils in fear from the human character.[27]

Powerful activist, present in the pilot through a single Dutch Radical group, was again present in the final sample. This, however, was captured by the same image, indicating this to be a minimal if not almost wholly absent form of symbolism within movement imagery despite the prevalence of a protest issue focus. To clarify, this image involved a centrally positioned activist, dressed in yellow with a white armband, looking forward into the distance with a look of defiance while holding a protest flag bearing the bee motif across the body. The subject, who is young and white is wearing a mask due to SARS-CoV-2, appears powerful also through the angle of the camera, which situates the viewer as looking slightly upwards towards the activist, rather than looking

down or from an equal height.[28] It is imaginable that the photographer was kneeling to capture this scene.

Finally, the idea of *juxtaposition* and potential ambiguity concerning human-Nature relations within an image was found in only two instances. This was exemplified well by a pilot sample image advertising the switching off of lights for the annual Earth Hour event.[29] The human hands holding a globe could have been read as either indicating a care and responsibility to the planet or dominion and control over it; should the guiding textual element have been removed. In sum, numerous codes and the image features they represented were examined through a content analysis. Modifying the coding schema developed through the pilot only slightly, a number of themes emerged from within the sampled image bank. These thematic categories which drew together some of the key findings from the above shall now be detailed. This is in advance of an extended discussion and formal conclusion to the present chapter.

7.4 Theme Identification

From the above codes, a number of themes were seen to emerge and these will now be relayed with linkages to the research questions, theory and literature. Briefly, a number of these themes related specifically to climate icons which were found in around one-third of both the pilot and final samples. Demonstrating the importance and frequency of their usage, such icons were thus perceivable as enduring communicative tools whereby climate change and more general environmental issues were central to how movements framed Nature. The first theme to be elaborated upon, however, concerns the compositional modality of movement imagery.

7.4.1 Text in Tension

Specifically, this has to do with the use – or not – of text within imagery. It relates therefore to codes developed around not only the presence of textual elements within an image, but also to where in the image such text is positioned, as well as its formatting. From the above, text was present in 65 percent of the final sample imagery, sometimes positioned centrally (27 percent), equally edited-in later compared to captured as part of the image subject (30 and 33 percent,

respectively), and more often presented in bold, capital lettering for increased visibility and legibility (55 percent).

On this basis alone, it could be suggested that despite the potential power and influence of the image as a communicative medium in and of itself, textual elements remain prevalent. Indeed, text often occurred as an element of central importance and was commonly highlighted through its capitalised formatting, drawing viewers' eyes to the text in an image and allowing a particular, guided reading to be made. Text, put differently, was much used within environmental and climate groups' visual communication and consequently warrants attention concerning its own effects in conjunction with the rest of the image and its own possible merit.

What is more interesting, however, was how text of this nature entered into a relationship with the visual elements of the image itself (that is, its non-textual components). Indeed, another relevant code was that of Nature's use for what have been referred to as decorative backdrops. This was found in 22 percent of the total final sample, indicating that this neutral depiction of Nature was fairly common. Here, a number of questions could be raised about the text-image relation and its consequences for meaning-making or, indeed, the importance of the image itself. To elaborate, these questions ask about: how far the text supplants the meanings of the image; whether the image is primarily used in support of the text, or if text could be seen as primarily supporting the image; and, relatedly, whether the image remains only as a decorative backdrop to the dominance of the text and so may in itself be deprived of its meaning-making potential.

An important temporal aspect also exists in this relationship. Interestingly, as stated earlier it can be seen how images of the present can become transformed into visions of the future, including of dystopia, through text's inclusion (Image 7.3, above). Nevertheless, while such a shift in image comprehension is possible, the text itself could retain a present tense framing; yet one which pushes the image's present into another, possible future. Consequently, the inclusion of a textual element can render the possible readings of an image in a different light when compared to the readings more directly offered before the inclusion of text. This therefore underlines once more the significance of Rose's (2001) sites of meaning-making, and particularly that of production when active decisions around image content are made.

While this meaning manipulation or stripping may occur where text is introduced into an image directly, the absence of text may also pose a key limitation to an image. Specifically, this point can

be raised in relation to the effective communication of, for instance, climate change. One limitation in this vein suggested by the literature was the lack of clear guidance around practical and useful actions viewers could take in the course of their everyday lives to contribute to efforts to address the depicted issue (for example, Nicholson-Cole, 2005).

Certainly, this may relate to a more general constraint of images as communicative tools, but is perhaps one somewhat lessened through a complimentary embedding of text. In this case, text specifying valuable and undertakable actions which viewers can pursue in relation to the issue depicted in the image. As such, text and image could more closely support one another, rather than one being subsumed by the other as, for instance, a decorative element deprived of its own voice. Put differently, the issue could be relayed in particular, possibly emotion-evoking ways while the text develops on these themes in an ancillary manner.

Indeed, this perceivable space and positive, non-dominating presence for text in images may also contribute to the reduction of discouragement and detachment when faced with strongly emotive visual themes. In this sense, it is suggested that the possibly strong emotional evocation from images may benefit from greater direction through the introduction of text. Specifically, of text presenting clear action guidance around practical and important behaviours viewers could take. This suggestion rests on the understanding that strong emotions speaking to or challenging viewer morals, ethics or norms may be overwhelming and consequently disengaging or discouraging (Chapter Three; cf. Jasper and Poulsen, 1995). This remains the case for climate or environmental imagery where negative issue framings are fairly common, such as through wildfires, glacial melt, threats to animals and similar (Nicholson-Cole, 2005).

In such cases, the absence of practical steps for affected audiences to take perhaps reinforces a sense of helplessness and personal ineffectiveness in the face of such emotionally-charged images. It would be interesting to see, therefore, whether imagery's disempowering element might be mitigated through the introduction of practical action guidance as text. This text could therefore provide suggestions concerning how people may begin to tackle the difficult themes which they are presented with. Consequently, it may contribute to a sense not only of the challenging nature of the image themes, but also help direct produced emotions into effective action oriented towards preventing or otherwise lessening the impact of the emotionally shocking issues captured within an image.

Therefore, images alone can tell audience members about many issues and entities, yet the inclusion of text can alter these possible understandings; and perhaps quite dramatically. This highlights text's continued importance not only within a single image, but also of that which surrounds an image as title, caption or longer discussion (Benjamin, 1969[1935]; O'Neill, 2019). Indeed, this theme centred upon text and its relationship – its *tension* – with imagery indicates also how different and perhaps significant communicative effects are possible when text is directly combined with imagery, or vice versa.

Certainly, there is room to suggest that the embedding of text within an image, and particularly a morally shocking or otherwise challenging one, may help to overcome some of the abstractness and distance oft-perceived with, for instance, climate icon imagery. It could direct what the viewer feels and thinks around the visual representations they encounter to this end. That said, there is also the possibility that the image, for all of its meaning-making potential, becomes equivalent to a decorative background which neutrally accompanies the text in such a way that it is stripped of its own stories and affective qualities in viewers' minds. Remaining directly relevant to these compositional aspects and discussions of mitigating emotions through text-based action guidance, there was a theme of absence which will be highlighted here.

7.4.2 Absence: Accountability and Guidance

Indeed, another interesting theme which emerged through the content analysis pertained to the assigning of accountability coupled with the provision of behavioural guidance. To elaborate, accountability around issues (understandable also as denoting culpability or responsibility) was absent in 82 percent of the final sample imagery. Guidance concerning the actions images viewers could take to address issues, meanwhile, was absent in 96 percent of the sample. Beyond above points concerning the potential benefits (or, indeed, pitfalls) of text within imagery, more fundamental questions could be raised around guidance and accountability insofar as images, the movement and landscape constructions of Nature are concerned. Accordingly, this absence could be taken to indicate an overall lack of diagnostic (issue and blame definition) and prognostic (identification of solutions) framing within movement imagery (Cress and Snow, 2000);[30] both seemingly central to any movement campaign. De Moor et al. (2021) have also commented upon

the apparent absence of prognostic framing from both XR and FFF which focus instead on general demands like 'tell the truth'; a core XR slogan (Box 3.4).

It could be suggested that limited accountability placed on actors, alongside the lack of guidance for audiences concerning the meaningful actions they can take, relate in turn to efforts to define human-Nature relations. As mentioned above with reference to the theoretical framework (Chapter Four), the relative absence of accountability and guidance could be understood to represent an absence of challenges. More specifically, of those building different human-Nature conceptions and practices, at individual and institutional levels, through suggestions envisioned within visual materials.

In this sense, landscape understandings of Nature and the value structures they contained could be understood to not be an area of conflict for movement groups. Indeed, alongside the non-identification of others against whom to challenge over a conflictual issue, these could form a basis from which to question the environmental and climate change movement as a movement. XR and FFF have been analysed as not constructing this opponent, although responsibility has nonetheless been identified as lying with politicians (De Moor et al. 2021). The former point would follow strict adherence to the three core movement characteristics, and namely of a clear definition of self, other and the object of the conflict between the two over which competing claims are made (for instance, Touraine, 1985).

Put differently, this absence provided a platform from which a number of fundamental questions could be reached, such as: is the absence of accountability and guidance a limit of imagery as a communicative medium? Is it instead (or concurrently) a limit of the movement *qua* movement, following definitions offered by Touraine and others? Thirdly, could it indicate a limit to movement efforts in the direction of constructing alternative Nature-related knowledges and value systems vis-à-vis landscape? While the second question arguably narrows the definition of a movement too much (for instance, Haenfleur et al. 2012), the other two were deemed to carry some weight.

Indeed, without specifying alternative activities and human interactions with Nature it would be difficult to ascertain whether challenges to dominant ways of seeing Nature have been posed; but again this may require the addition of text oriented to achieve such clarity. This is perhaps an arguable limitation with the use of images to convey environmental and climate issues, including

in terms of values and actions, due to the ambiguity which can be present within the image itself. As scholars have noted, the presence of accompanying text can facilitate audiences to direct their attention towards certain visual components or meanings emphasised by image producers (Benjamin, 1969[1935]; O'Neill, 2019). Furthermore, absence and its relation to (challenges against) Western landscape constructions feeds into another theme around the presence of landscape in movement visual communications and frames. This shall now be considered given its core interest to the project at hand.

7.4.3 Reproducing Landscape

To elaborate, codes informing this theme concerned the overall representation of Nature. This pertained particularly to aesthetic beauty, cleanliness and human management sub-codes. These were present in 13, 33 and 26 percent of the full final sample, respectively. Consequently, they represented a significant proportion of the analysed image sample which was greater than the comparable 'wilderness and Nature recreation' frame present within seven percent of another study's visual sample (Rebich-Hespanha and Rice, 2016). While Conservationists demonstrated a higher frequency of aesthetically beautiful renderings of Nature – as could be assumed given an arguable focus on the intentional maintenance of location beauty (Gandy, 2013; Nohl, 2001) – every other group type also depicted Nature in this way; and this is of importance.

As such, it was clear that all group types engaged with these themes through their visual representations of Nature. While cleanliness and degrees of human management feed into landscape perspectives, aesthetic beauty was here deemed the more direct means by which to investigate this theme. Indeed, focus upon Nature's aesthetic beauty has been seen to underpin classic Western conceptions of Nature as a primarily visual and external entity (Beza, 2010; Wylie, 2007, amongst others; Chapter Two). Such a viewing of Nature rests upon a detached and distant gaze through which it is appraised and evaluated following a certain set of values which emphasise visual appearance and perceived harmony or belongingness between the elements when seen together (Gandy, 2013; Nohl, 2001; Trudgill, 2008). It thus produces a cognitive and non-bodily rendering and interaction with Nature; hence related discussions of dualisms (Wylie, 2007).

This cultural construction could therefore be understood as narrowing the possibilities for a deeper, more embodied human-Nature engagement and knowledge coupled with a reorientation of values, whilst stripping Nature of agency. Acknowledging the latter, for instance, has been held to offer the possibility of different human perspectives on 'Nature' and, in turn, human actions towards it. This then holds the potential to inform a new set of ethics and understandings within the human-Nature interrelationship which could inform different approaches to environmental and climate crises. This relates to ideas of value amplification in which certain values concerning ways of life and behaviours held by the movement are promoted through particular framings (Snow et al. 1986).

It was in this vein that the overarching theoretical interest of this project was formulated with reference to Touraine and Latour (Chapter Four). Indeed, the interest was in examining the extent movement imagery – as symbolic materials and tools involved in meaning-making – could be perceived to offer a challenge to landscape visions productive of human-Nature dualisms and detachment. This was conceptualised as potentially being part of a conflict over dominant societal values and cultural patterns in the face of climate-related issues.

However, what the aforementioned sub-codes indicated was a continued reproduction of the Western landscape construction of Nature. Image 7.6 above and the images of Box 3.9 demonstrated such imagery. What they showed was a clean Nature not subject to intensive, functional management by humans; an aesthetically appealing natural environment existing around the camera. The photographs invited a gaze and appreciation of the visual spectacle and harmony being presented, potentially invoking desires to explore these landscapes for leisure purposes while obfuscating how such places can additionally be sites of vulnerability, including that which is human-induced (also Rebich-Hespanha and Rice, 2016).

That said, it may be possible to adopt Diani's (1996) notion of the master frame here. While Diani discussed this explicitly regarding POS, it could be repurposed in terms of culture with master frames thus becoming the dominant representation of the social, the natural and their inter-connection. In so doing, it is arguably possible to begin conceptualising the reproduction of landscape in non-Conservationist imagery as purposefully linking to these societal conceptions of Nature in order to increase visibility, credibility or appeal among the (Western) public or policy-makers. As such, the primary claims and framings used by groups may offer greater points of

access for this audience through linkages to the Nature-relevant cultural master frame. This perhaps also indicates frame extension as a widening of primary frames to incorporate other secondary issues (Snow et al. 1986), and this will be mentioned again below.

Once more, however, combining this idea with that of action guidance absence, it remains unclear whether such an effort is being undertaken. This culturally-oriented master frame linkage may therefore not be the case within movement actors' visual framings of Nature. This includes possible master frame links based in 'realignment' framing as an intended restructuring of existing systems with regards to new identities (such as in relation to Nature), or perhaps 'anti-system' framing aimed at more fundamental polity (or cultural) transformation; both discussed by Diani (1996).[31]

Put differently, these images could be understood, by merit of their reproduction of landscape ways of seeing, to mainly invite an engagement and knowledge based on visual appraisals of the external material elements depicted. Through these characteristics of how Nature has been visually represented, the viewer or, indeed, broader societal framings of the environment were arguably not challenged by either the production or presentation of the images. There was no clear claim-making or issue being conveyed; no alternative set of values, relational understandings, nor promoted actions or responsibilities.

Consequently, there is room to argue that the environmental and climate movement is not in complete opposition to the Nature-as-landscape construction, but has instead reproduced related values and gazes through the imagery it has shared online. Landscape as a cultural means of seeing Nature has thus seemingly been reproduced by the movement. It thereby raises questions regarding how far groups could be seen to offer a deeper, cultural-level challenge to societal values underpinning human-Nature interactions. Nevertheless, a number of additional themes were found. These revolved around the climate icon as another way images can serve as symbols or convey certain understandings of both specific issues and of Nature in general.

7.4.4. Looking Through the Eye of Apollo

First of all, therefore, one of the core icons to enjoy frequent usage within the image bank was that which some literature refers to as Apollo's Eye (here, the Blue Marble), and variants of this view of the Earth from space. Indeed, the Blue Marble accounted for around three-fourths (73 percent) of all icons present within both respective samples. This consequently represented a significant occurrence which in part related FFF's adoption of an illustrated version of this icon as its logo. Certainly, these groups contributed 72 percent of the total number of Blue Marble images to the final sample, and so Demonstrative Outsiders were the dominant user of this particular icon.

The prevalent use of this icon is quite interesting insofar as its potentialities and limitations are concerned. To elaborate, the Blue Marble clearly relays the global nature of issues, but by extension lacks a specific local focus. Such a local focus may make these issues more relevant or directly concerning for audiences. In other words, this icon may have a distancing effect between global climatic challenges and people's everyday lives and experiences. Consequently, it is not necessarily effective for producing enduring concern or lasting actions by viewers. This image may thus be uninspiring and unrelatable to viewers' lives (Chapter Three).

Moreover, it is interesting too due to how this image of the Earth from space is not a new environmental motif or framing, but links back to the original 1972 NASA photo of the planet (O'Neill, 2019; see Image 7.4). While other icons have since come to the fore, and none more so than the since contested polar bear denotative of global warming and associated environmental vulnerabilities, it is curious why the planet as an older icon with much use in past decades has become a central motif once again. This is especially the case for the recently emerged and youth-led arm of the movement keenly represented by FFF. Either way, the predominance seen in this icon's use differed from that of previous studies where the Blue Marble featured little within image banks (for instance, O'Neill, 2019). This thereby marked a clear break and distinction between previous research and that presented here. It may also indicate a difference in the visual representations or framings of Nature used by movements (this study) and mainstream news outlets (prior studies).

7.4.5 Where did the Polar Bears Go?

A core synecdoche and icon within climate communication is undeniably the image of the polar bear, possibly with the additional accompaniment of ice melt. Indeed, this image conveys a Nature that is vulnerable both in terms of landscapes and of the animals which live in such places. Given the focus on ice terrain and Arctic life, whether incorporating melting glacier themes or not, the widely understood reference is to global warming. Moreover, the position of the polar bear icon and its dominance have resulted in its parody and co-option by climate sceptics (Chapman et al. 2016; Chapter Three). In this sense, Aklin and Urpelainen's (2013) image-based contested and counter-framing, whereby challenges to dominant themes or claims may reduce if not fully negate the impact of an image in promoting a certain issue perspective with an audience, becomes relevant.

Based on the existing literature, therefore, it would have reasonably been expected that polar bears retain their presence as a dominant icon conveying climate change among social movement groups. However, unlike studies focused upon mainstream media's visual representations of the climate,[32] the movement placed at the centre of the present research provided findings differing from this literature. Specifically, when examining the presence of icons polar bears occurred in just four percent of the final sample. They never featured among the pilot sample's images.

Within the main final sample, polar bears were used more by Reformers except on two occasions where they were found from Radicals and, combined with an additional glacial melt theme simultaneously within the same image, Demonstrative Outsiders. The absence of engagement with polar bears from Conservationist organisations was fairly unexpected given the focus WWF groups in particular place upon animal life and its protection. Perhaps this could be linked to their wider focus on conservation matters, however, and so not necessarily upon the global warming theme which is immediately conveyed by sharing polar bear imagery. Moreover, the general absence of polar bears may also relate to two other issues.

Of these, one has already been mentioned and concerns how the frequency of this icon's general use, linked also to its contested and parodied aspect, may have encouraged a shift away from the dominance of this icon in groups' visual communication of climate and, by extension, Nature. Indeed, perhaps the content analysis suggested that polar bear imagery's seeming loss of prominence might rest in part upon how it has had its original meaning and impact reduced and

challenged through overuse, parody and/or counter-framing (Aklin and Urpelainen, 2013; Chapman et al. 2016; Rebich-Hespanha and Rice, 2016). It may be, under this scenario, that the polar bear no longer represents an impactful and effective image through which to convey the severity or urgency of global warming and associated issues.

Alternatively, it could also be proposed that the presence of more immediate events or unfolding disasters have influenced icon choice. With this perspective, the polar bear's decline in the overall visual construction of environment-related issues might reflect broader issue-attention phenomena in mainstream media coverage and public imaginations. Indeed, related to this apparent loss of dominance found by the content analysis, perhaps attention has turned to new icons and issues; one such possibility being wildfires.

7.4.6 Wildfires – A New Dominant Icon?

With the issue foci coded, such wildfires were among the most consistently occurring single issues in both samples (15 percent in the pilot, seven percent in the final sample). It can therefore be understood in conjunction with the higher frequencies of forest locations (17 percent), as well as of vulnerability and threat themes (33 percent) also recorded during image coding. This, it is suggested, represented an interesting image framing since it captures environmental vulnerability, like the famous polar bear icon, whilst also capturing a threat to society. This latter feature is unlike the polar bear imagery since, given the focus on animals in Arctic environments, polar bears could be seen as comparably more detached from audiences both geographically and through the absence of relatable human stories.

Regarding this, wildfire imagery can convey a number of different locations. Adopting a narrower Western-centric perspective, these locations can both be seemingly further away and more distant from a viewer's lived experience, like the Brazilian Amazon, yet also places which could appear more familiar or known; such as Australia and the USA as similarly Western societies. The latter, by extension, may therefore partially overcome the geographical distance limitation previously discussed (Chapter Three) with this limitation argued to be present with the central Blue Marble Eye icon as well.

By way of further icon comparison, unlike smokestacks imagery of polluting industries, wildfire images convey no clear accountability and nor are there directly depicted linkages made between the fires and human actions or causes. Moreover, there further remains an absence of guidance regarding the practical and meaningful actions viewers could take to help address the wildfire issue. In this latter sense, such imagery would appear not to be empowering for the audience. Examples akin to those within the image bank are presented by Image 7.7 and 7.8.[33]

Image 7.7: Wildfire (I)

Note: With trees becoming columns of fire in an uncontrolled manner, the threat theme arguably becomes palpable. *Source*: "Forest fire", Ervins Strauhmanis (CC BY 2.0).

Image 7.8: Wildfire (II)

Note: Although the fire itself is not as bright like with Image 7.7, this particular photograph includes more prominently another aspect of wildfires; and namely thick smoke. *Source*: "Wildfire in the Pacific Northwest", BLM Oregon & Washington (CC BY 2.0).

With the above in mind, wildfire imagery may generate awareness, concern and perhaps fear, yet it may also obfuscate – that is, render unclear – the responsibilities for taking action in response to these disasters, including those of the audience. Nevertheless, given the frequency with which wildfires were the central issue focus within the samples, this imagery is here offered as a new icon used within contemporary movement communication and framing. This may further be the case when coupled with the seeming reduction in the dominance of polar bear imagery discussed above.

That said, it will be both important and interesting to examine the usage of wildfire imagery in the future. Specifically, this imagery's occurrence frequency should be charted within movement communication practices online. Indeed, while the polar bear icon endured for a number of decades, similarly to the Blue Marble, the contemporary prevalence of wildfire imagery is not guaranteed to continue. Their current situation as a core icon could instead closely relate to issue-attention cycle effects. In short, while wildfires were a notable issue focus and arguably formed a synecdochic icon within the samples, the data collection period coincided with significant bushfires in Australia and, later, forest fires in the USA. As such, wildfire imagery enjoyed mainstream news coverage and consequently entered the general public's consciousness in the West as a current environmental issue which presented a vulnerability and threat framing. That said, significant wildfires were also experienced in the summer of 2022 in countries such as France, Portugal and the UK; reproducing coverage for this challenge and suggested icon.

Whether this proposed icon, little mentioned within visual climate communication studies (for instance, O'Neill, 2019; Rebich-Hespanha and Rice, 2016), endures once mainstream and wider public attention moves on to other issues thereby remains open for investigation. Certainly, by adopting an understanding that a wildfire focus may coincide with broader societal issue-attention, the movement could be seen to have adopted imagery which had already caught the eye and concern of the wider public. This could therefore represent an active selection and use of this issue focus in order to speak directly to the public mind, and perhaps advocate their campaign activities and aims among a larger audience pool. If the case, this would suggest the opposite phenomenon – or, perhaps, a mixed phenomenon – when compared to aforementioned distinctions between movement and mainstream media usage of Blue Marble iconography.

It would also indicate a form of frame alignment referred to by Snow et al. (1986) as frame extension. Reflecting the points just raised, this extension occurs when movement actors attempt to capture the attention of those with similar concerns which are not primary frames currently employed by a movement group. These frames are thus expanded in order to encapsulate wider concerns, generating larger group appeal among a greater number of potential supporters in turn. In this light, the common use of wildfire imagery at a time when it enjoyed prominent media and public attention may reflect efforts to promote groups' wider campaign and claims. These can extend beyond wildfires to link into and make relevant their central anthropogenic climate change and environmental degradation framings, for instance.

In other words, when conceptualised as an active process, framing in this manner can seek to capitalise on people's contemporary concerns and consciousness around events such as wildfires, inclusive of the vulnerability and threats they present. Certainly, the increase of wildfire imagery little discussed within the literature and its comparative supplanting of the polar bear creates interest in how far this imagery's themes and frames have been used within the movement as part of frame extension techniques, as defined by Snow and colleagues (1986).

7.4.7 Typology Relevance

A final theme was of more methodological relevance and specifically regarded the typology employed by this study. As Chapter Five discussed, despite doubts around their belongingness Conservationist organisations were retained within the typology as a means by which to compare their imagery to that of the other group types, and particularly Radicals. In so doing, the idea was that if Radicals (or the others) were challenging the Western landscape notion through a particular and less dualistic rendering of the human-Nature relationship and interaction, this would contrast well against Conservationist's visual constructions of Nature which were assumed to be more likely to relay an unchallenging landscape of beauty and visual pleasantness.

Interestingly, the results of the content analysis spoke well to how environmentally-oriented groups inclusive of Conservationists, Radicals, Reformers and Demonstrative Outsiders could be understood. Specifically, this was seen in relation to the primary issue codes and those concerning protest and conservation foci within the schema. To recall, a protest focus in groups' visual

communication was seen in 20 percent of the final sample with the majority of images sourced from Radicals and Demonstrative Outsiders, and never from Conservationists. Meanwhile, conservation was found in 12 percent of this sample with most from Conservationists, and little from Radicals; meeting typology expectations.

This thereby leant additional credence to suggestions by scholars such as Saunders regarding Conservationists' position within the movement. Indeed, as expected Conservationists followed an opposite direction in terms of issue focus; most starkly compared to Radicals. As a further example regarding this protest-conservation difference, Reformers could have been expected to fall somewhere in-between Conservationists and Reformers given their partially institutionalised yet still protest-partaking characteristics. This was also observed, although for both a protest and a conservation focus Reformers leant in a direction more akin to Conservationists overall. This thereby arguably underlined the possible influence their degree of institutionalisation and efforts to secure incremental changes may have exerted (Chapter Five).

In other words, the data would seem to meet some of the typology's assumptions insofar as these primary issue foci – directly relevant to group identities and activities – were concerned. It has thus been shown to represent a viable and useful comparative tool. Conservationists could therefore be seen under these conditions as falling just outside of or, at least, 'belonging' less among the other groups given these differences; although Reformers also fell more in the same direction as Conservationists concerning issue foci. On account of this, perhaps the stronger argument against Conservationists' inclusion within the same bracket as the other types relates back to the core features of a movement, as expressed by Touraine (1985) and others; and namely about a clear definition of the self, an other and of an issue over which conflicting claims exist with this other. It is these latter two which Conservationists seemingly lack according to the content analysis of their Nature imagery.

7.5 Discussion

Having begun a conversation around the themes identified through coding, these will now be discussed with explicit reference to the guiding research questions and theoretical framework. It is the first two research questions which were of most direct relevance here, and namely those which asked *what representations of Nature are communicated by environmental and climate movement imagery*? And, *how far are identified image themes shared across movement group types*? The theoretical query of Chapter Four was also of relevance, asking *to what extent could the cultural construction of Nature as 'landscape' appear to be reproduced within the movement*? These therefore examined framing with regards to what Nature is and how it is constructed by movement groups, and this was well-captured through the content analysis and devised coding schema.

As elaborated upon above, one core theme of interest concerned the extent movement groups may have been seen to challenge culturally dominant constructions of Nature. In so doing, possibilities for a presentation of new values or knowledge of human-Nature relations which extend beyond dualistic, detached and visually-oriented ways of seeing were suggested. These new values would thus be in conflict with those of wider society and so place movement groups in a clearer opposition to this framing of Nature as part of a struggle over what Touraine (1985) defined as cultural patterns (knowledge, investment and ethics, specifically). As such, it could open up the way for an acknowledgement and valuing of non-human entities' agency, denied by landscape constructions, and possibly inform new practices. This would reflect part of what Latour referred to as a response to the 'New Climatic Regime' (Latour et al. 2018).

The image could thereby act as a symbolic and meaning-making tool through which such a perspective or challenge could be conveyed. However, sub-codes concerning the visual representation of Nature as aesthetically beautiful, clean and intensively managed seemed to indicate that movement groups of all types still engage with imagery arguably reproductive of a landscape aesthetic and rendering of Nature. In this sense, the challenge over environment and climate-related issues offered by the movement would stop short of demanding deeper societal changes in the form of cultural patterns with respect to the visual depiction of Nature and the theoretical framework of Chapter Four.

Beyond consideration of landscape, however, other areas of potential viewer-issue detachment were identifiable within movement visual communications. This was captured well by the

significant presence of climate icons within 28 percent of the final sample. Here, the dominance of the Blue Marble view of the Earth from space provided a key example which was found to be a central element of the sampled imagery. The suggestion proposed above was that this icon, in purposefully presenting the global nature of climate-related issues, in turn rendered these issues as abstract from the everyday places and experiences of audiences. It thereby holds the potential to create distance and disinterest as a result. Indeed, the extent to which this represents a more fundamental limitation to the use of images as a communicative medium could be posed and was used above to explore the roles and tensions embedded text might have in this regard.

While synecdochic icons like the Blue Marble were common, within and outside of this iconic imagery themes of vulnerability and threat were also consistently found. Resultantly, the framing of Nature as either being vulnerable itself and/or as posing threats to human society were present in 33 percent of the final sample. This was relayed particularly well by wildfire images which are here understood to present shared human-Nature risks from environmental disasters and climatic changes. These, by extension, can point to human activities and causes similarly to a synecdoche. Given the fairly frequent use of wildfires (seven percent of environmental disaster issue foci, with an overall frequency double that of the polar bear), it was proposed here as an additional and contemporary icon employed within the movement. It revealed both a specific issue focus and a way in which Nature was framed simultaneously as a (reciprocal) source of threat and as a victim.

There is a possible argument that in presenting Nature in this double way, linking into societal and environmental vulnerabilities so that risk is shared jointly by the human and non-human, might reduce some of the distance between the two. However, often this wildfire imagery did not include the identification of responsibilities and the connections between shared risks or loss and underlying human causes. Nor did it indicate feasible actions viewers could take to help prevent such disasters and mitigate the threats.

Accordingly, and while the places shown may appear less geographically or culturally removed from a Western standpoint (especially when compared to the distant globality of the Blue Marble or the non-human and Arctic focus of the polar bear), the lack of explicit connection may serve to obfuscate this element of movement claim-making and issue occurrence. Put differently, it may create distance between people's everyday lives and wildfires and thus become ineffective for encouraging individuals to engage further with these events through every day behaviours.

In general, there was often little within images directly guiding viewer actions in relation to Nature or specific issue foci (absent in 96 percent of the final sample), as well as little attribution of accountability for issue occurrence or remedy (absent or unclear in 82 percent of sampled images). This was exemplified by the wildfire icon just discussed. Besides this, industry was rarely included within the final sample (four percent), although it remained the most common actor for responsibility placement when present (eight percent of the sample under the accountability code).

Comparably, people were depicted at a slightly higher frequency (18 percent), and animals the most (47 percent). Animals consequently appeared as key entities in Nature representations. This again is potentially productive of distance through the lack of human stories, but animals' presence in imagery may nonetheless be appealing to viewers or perhaps emotionally evocative, including through humanisation. On this, however, the use of moral shocks generated specifically through animal imagery in the sense of Jasper and Poulsen (1995) was minimal at only one percent of the final sample.

As has been seen, the reproduction of a Western landscape representation of Nature was more common among Conservationist organisations and less so with Radicals, and thus some inter-type difference was perceivable here. However, Radicals' lower engagement with landscape did not by extension mean that Nature was alternatively depicted as more interconnected with people's lives, nor as holding its own agency in the manner discussed so far. Indeed, Radicals used Nature or natural elements as decorative backdrops within their imagery to a greater frequency than other group types; and Conservationists the least. Therefore, a lower reproduction of landscape should not be taken as necessarily being indicative of a move away from this construction of Nature. The decorative backdrop use of Nature, to elaborate, could still be seen to present perspectives of Nature as a neutral background material and thus arguably strips Nature of its own agency or meaning-making potentials similarly to landscape.

Moreover, this use of Nature in the background would appear to render the image as a communication form in its own right as subservient to foregrounded text. This text then arguably becomes the primary communicative aspect over the image of Nature. In such cases, the text is thus of central importance. Resultantly, both Nature as an entity and the image as a tool are reduced in power to become neutral, non-agential aspects when situated as background, decorative material (for example, Image 7.2, or images referenced in endnote 20).

In short, Radicals may indeed engage less with landscape among movement actors, yet they did not highlight different understandings of Nature and human-Nature relations or values in turn. Instead, they could be seen to reproduce Nature as an external background without agency that serves as a visual decoration in a manner similar to landscape constructions of Nature. Once more, therefore, little challenge to societal values or understandings of Nature or, indeed, conflict for control over cultural patterns, could be perceived on these bases.

Interesting too, and particularly from a social movement studies perspective, was the representation of Nature – or specific elements thereof – as protest symbols. This included the Blue Marble icon alongside XR's use of bee and bird motifs; with the former holding an added extinction-related symbolism. There was little other symbolism within the sampled imagery, although the humanisation of Nature was the next most common code. This may reflect intentions to evoke empathy from viewers through presenting recognisable and relatable emotions or features, consequently reducing the potential distance between audience and depicted natural entities. Moreover, such humanisation and the recognisability which it might produce could further offer one potential means by which relatability to viewers might be gained in the absence of more directly human stories.

Returning therefore to the question concerning the visual representations of Nature presented by environmental and climate movement imagery; detachment, distance and ambiguity have been observed. Ambiguity was present through the absence of action guidance and responsibility assignment. This was seen, for instance, with wildfire imagery which represented one key and contemporary issue conveyed by movement groups. Meanwhile, detachment existed in the climate icons frequently used by groups, notably including the view of Earth from space (the Blue Marble) which also highlighted a distance theme. While not always stemming from imagery of aesthetically beautiful Nature, Nature's similarly common usage as a neutral decorative backdrop also underlined the idea of detachment. It thereby suggested a partial reproduction of landscape-associated cultural framings of Nature. This holds implications for how Nature and society's position in respect to it can be understood, valued and acted upon in the context of continued degradation and climate breakdown.

Moreover, the construction of positive futures in which Nature is brought in closer relation to human society and practice in the manner of McNally and De Andrade (2022) was not found

within the image bank samples. As one arguable way in which human-Nature relations could be reflected upon, this perhaps begins to raise the question about whether attempts to produce an alternative rendering of Nature and people's relations to it is present within movement imagery. These are therefore the key ways in which Nature has – and seemingly has not – been visually constructed within movement imagery.

However, the above also spoke to the second research question: *how far are identified image themes shared across movement group types*? Insofar as landscape framings of Nature were concerned, therefore, it is suggested that this particularly Western cultural construction was fairly well shared across the identified movement types. Nevertheless, it indicated a greater distance between the framings used by Conservationists and Radicals. Indeed, the difference between these two types in particular was further highlighted with regards to primary issue foci, and specifically regarding visual representations of protest and conservationism. In these, then, the diffusion of images and their themes or framing appeared to not always be congruent across group types.

Certainly, other differences have also been uncovered, such as Demonstrative Outsiders' notably predominant use of Blue Marble icon variants (plus sole use of the drought icon), alongside their notably lower depiction of animals within their visual materials (with a seven percent share of all animal-containing images). Conservationists, meanwhile, showed minimal engagement with icons. Additionally, Demonstrative Outsiders and Radicals – both representing the less institutionalised group types – shared dystopic future imaginaries whereas the others did not. This in particular may relate to this less institutionalised characteristic in which incremental reforms are not the core goal (unlike with 'Reformers'), and central claims are of a more urgent need to tackle climate and environmental challenges or face, in the case of Radicals, the threat of extinction.

Again, therefore, the typology provided interesting insights for the present study. Based on these examples, the content analysis helped to reveal both convergence and divergence in the framing of Nature across a movement delineated through the typology categories. Notably, for instance, it pointed towards some recognisable differences between Radicals and Conservationists, and areas of similarity for Radicals and Demonstrative Outsiders; in line with typology assumptions. As a result, what Snow et al. (1986) discussed as bridging frames which attempt to connect otherwise structurally disconnected groups sharing some organisational similarities did not prominently exist here. Indeed, such frames among the typology groups may not be possible given the existence of

different identities, activities and issue attention (Saunders, 2013). Certainly, this was more clearly indicated between Conservationists and Radicals which differed in terms of both the degree of institutionalisation and radicalism, with this arguably reflected in the core themes of their imagery. Between country differences, meanwhile, were not pronounced within the data and so more notable distinctions remained at the group typology level.

7.6 Chapter Conclusion: Thematic Findings and Next Steps

To conclude this chapter, therefore, the coding schema developed jointly from the literature and image bank itself resulted a number of interesting themes being identified. These included a particular movement focus on iconic climate imagery with the Blue Marble and wildfires taking the central position in conjunction with the reduction of polar bear images. There was a tension within images between their more visual vis-à-vis textual components as well. The importance of considering absence within visual materials was also underlined by the lower frequencies with which practical and clear behavioural advice was offered to viewers, alongside an uncommon identification of where responsibilities for depicted issues lie.

This chapter has thus helped demonstrate the potential limitations of imagery as a communicative medium in general, as well as with respect to environmental and climate challenges specifically. It has further suggested a number of interesting changes to the contemporary usage of iconic imagery within this. These comprise an important aspect to the answer the content analysis has provided to the first and second research questions originally set out in Chapter One. Moreover, and with direct reference to this project's theoretical underpinnings, the findings here cast doubt upon the extent to which the movement could be seen to engage in a conflict over the definition of cultural patterns and values in respect of Nature and society's problematic relations with it. Indeed, the longstanding Western notion of landscape was found to be reproduced by the Nature framings of more institutionalised groups, represented well by Conservationist organisations. Meanwhile, Nature was cast as a similarly neutral and passive decorative material by the more radical wing of the movement, exemplified by the Radicals.

Within this, finally, areas of divergence were found with regards to the existing literature. These results therefore suggested an interesting pathway for future research which can further compare

the visual communication of climate change and Nature within the news media (like in other studies like O'Neill, 2019; Rebich-Hespanha and Rice, 2016), and social movements (this study). Certainly, the content analysis has already indicated different theme and frame dominance within movement communications vis-à-vis those of the mainstream media.

How far these observations remain, complement or challenge the findings from differently collected data will be present in Chapter Nine which looks in greater depth at the theoretical query as well as the third and final question posed by this research; namely, *how is movement Nature imagery received by rank-and-file movement members*? Before these questions and the data collected through direct interaction with movement members are considered, a short chapter will now provide an account of who these research participants were and how far they could be seen to reflect ideas of 'typical' environmental activists, as well as the wider public.

Chapter Eight: Participant Demographics

8.1 Introduction

This research's intention has been to uncover both the main themes of movement Nature imagery, as well as how these are received by members of this environmental and climate movement. Having now presented the core themes identified through analysis of the image bank, attention now turns to analysing movement member reactions to a sub-set of images reflecting these core content analysis themes.

Before the presentation of these results, however, a brief word should be given concerning who these 'members' were. Specifically, then, this short intervening chapter provides an account of the demographic characteristics of survey respondents and interviewees. It thereby gives greater context to the data presented in the following chapter. Simultaneously, it opens the possibility to explore participants in relation to social movement studies' characterisation of 'typical' activists, alongside questions of broader representativity. A demographic profile for those who responded to the survey, and those who partook in interviews, will therefore be constructed; beginning with the former.

8.2 Survey Respondents

The 'typical' environmental activist within the movement literature is middle-class, university educated, politically left-leaning, white and working in social-facing professional occupations (Cotgrove and Duff, 1980; Eckersley, 1989; Saunders et al. 2012; Saunders et al. 2020). Commonly, a majority of protest participants have also been female. These features were recently uncovered again among participants in XR protest events in London by Saunders and colleagues (2020). Moreover, in an earlier paper, it was suggested that those with a mid-level of participation frequency in such events are the ones who sustain group protests; these individuals characterised as 'returners' and 'repeaters' (Saunders et al. 2012). These latter themes, specifically of protest participation with the addition of political leanings and personal issue concerns, will be addressed in the next chapter. Information on race, to note, was not collected for the present project.

Remaining with the present chapter, survey respondents represented a range of ages within each group type (Figure 8.1; Q.15 of the questionnaire, reproduced in Appendix Four). What was immediately noticeable were broad similarities between Radicals and Reformers, but a difference through a comparably younger demographic for Conservationists. There was therefore an under-representation of 'younger' individuals for the former two groups, such as in the 25 or under and 26-35 categories. Instead, respondents from Radical and Reformer groups were primarily above the age of 56. This demographic accounted for 62 percent of Reformers who returned the survey, and 65 percent of Radicals. Resultantly, over half (56 percent) of all survey respondents were aged 56 or over. Conversely, all Conservationists fell in the lower age categories and, within these, demonstrated a slightly more equal frequency of participants under each category. In short, there was an absence of older (56 or above) individuals among Conservationists, and an absence of younger individuals (25 or under) representing the less institutionalised Radicals and Reformers.

Figure 8.1: Respondent Demographics (Age), *n*=136.
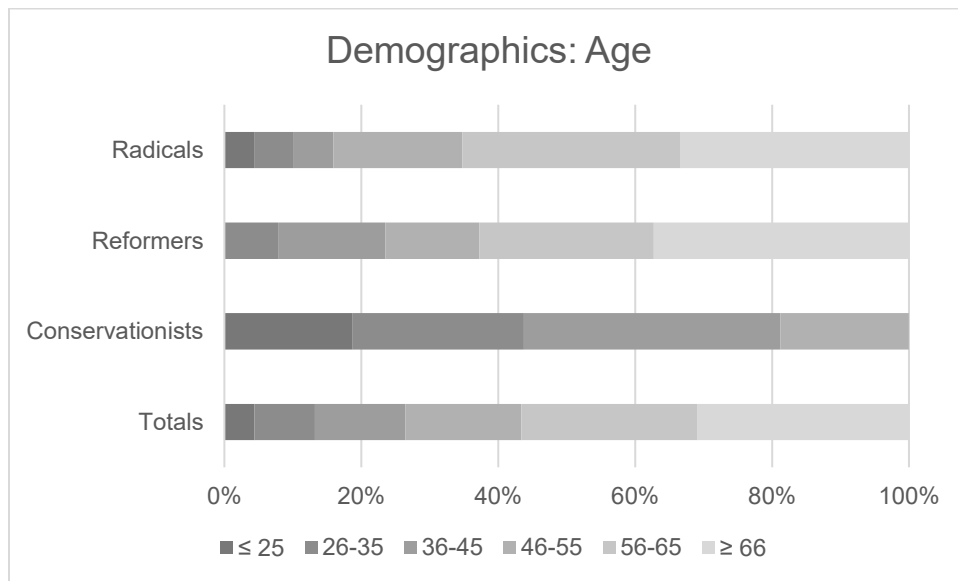
In terms of gender, meanwhile, there were a number of missing values alongside two individuals who preferred not to say and, lastly, two additional respondents replying 'balanced' and 'whatever' respectively to this question (Q.16). It is these latter two replies which were categorised as 'Other' within Figure 8.2 below. This figure visualises the data with non-response excluded. The results showed a slightly greater representation of self-reported females compared to males. Specifically, 59 percent of the sample were female, and 34 percent male. Looking at the group-level statistics, over half of each groups' sample was comprised of women, and under 40 percent men. These results therefore reflected those of previous movement studies which found a higher representation rate for females (for instance, Saunders et al. 2020). This project was therefore in-keeping with the relevant literature.

Figure 8.2: Respondent Demographics (Gender), *n*=130.
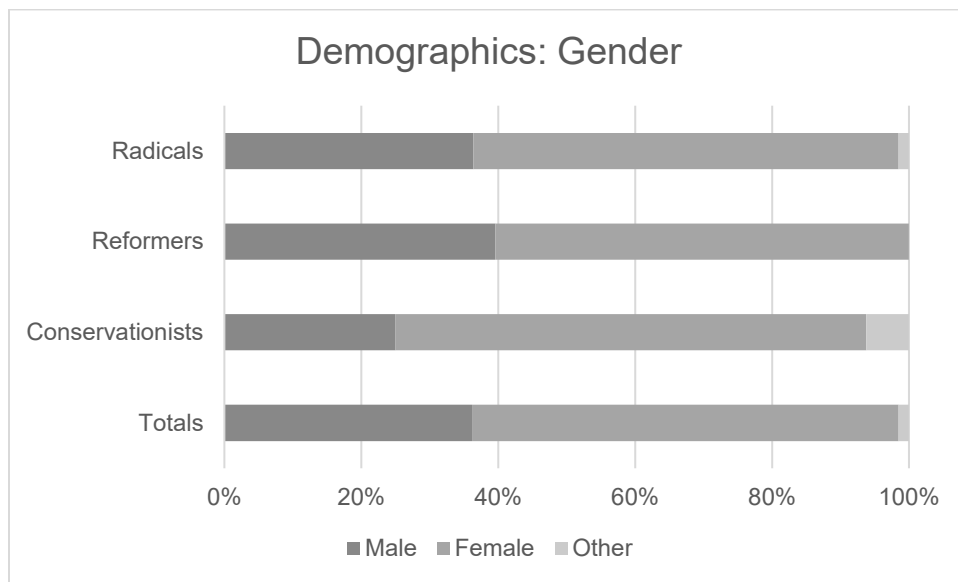
The majority of respondents (57 percent) were in employment, inclusive of full-, part- and self-employed individuals (Q.17). This was the largest occupation status category, with the next being 'retired' at 32 percent of the sample. The latter case may reflect the older demographic which was seen to be prevalent based on the above. The total number of those in employment among Radicals

and Reformers was 31 individuals, but the former group type possessed a slightly higher number of retirees (26 to 18 respondents).

A relevant concept from social movement studies could be introduced here; namely that of biographic availability. This concerns the personal constraints which could influence people's weighing of costs and benefits regarding their participation in movements or not. Such constraints include being employed full-time, being married and holding familial responsibilities. There is an additional linkage to age as a consequence. Within this, it has been suggested that younger people could generally be more available to protest in the absence of a career (and so also of risks to continued job security, or limits on free time), marriage and children (Saunders et al. 2012; Schussman and Soule, 2005). That said, Schussman and Soule (2005) found mixed support for this concept in their own research.

Compared to the age data above, the most active in the more protest-oriented groups were older respondents. This could be understood to indicate a degree of biographical availability since they are more likely to be retired and thus without work commitments. However, the absence of younger people would nonetheless bring this concept into question. It is feasible, then, to see mixed support for the notion of biographical availability within this research as well. Data on marriage and parental status was not collected for the project at hand.

Complementarily, education levels were examined (Q.18). Broken down into those who are university graduates and those who are not, it was the former category which was most represented within the survey sample. Excluding three non-response cases, graduates accounted for 78 percent of all respondents. It appeared, therefore, that the highly educated characteristic of typical environmental activists was also captured by this study.

Another feature of the typical activist within movement literature concerns social class. Figure 8.3 reports responses along these lines. Similarly to education and gender, prior studies' activist definition again seems to fit; namely, that environmental activists are commonly middle-class. Turning attention to the results in greater detail, a significant 65 percent of the sample self-identified as belonging either to the lower or upper middle-class (excluding non-response). Meanwhile, only 12 percent chose working-class and 23 percent were either unsure or did not identify with any social class. Figures across groups were in-keeping with each other and with this aggregate trend.

Figure 8.3: Respondent Demographics (Social Class), *n*=129.
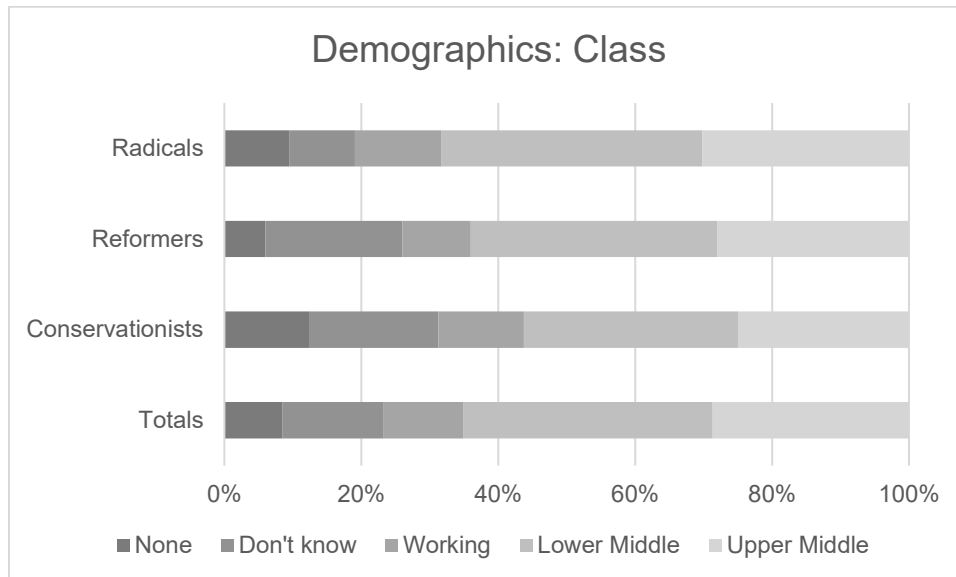
78 percent of respondents answered that they were born in their current country of residence, the remaining 22 percent therefore being immigrants (Q.21). The proportion difference between natives and non-natives within Conservationist and Reformer samples were roughly similar at 29 and 27 percent, respectively. Non-native born members, meanwhile, formed a comparably lower presence among Radicals (17 percent).

In these countries of residence, respondents also indicated a low satisfaction in democracy on aggregate but with differences between group types (Q.6). Radicals and Reformers, for instance, expressed the deepest dissatisfaction with democracy where they live. For Radicals, 78 percent were dissatisfied while 63 percent of Reformers felt the same. These proportions combine all answers from values 1 to 4 on a 10-point scale, where '1' indicated 'very dissatisfied' (Appendix Four). For Conservationists, a mid-high satisfaction level (scaling from 5 to 10) was held by 75 percent of these respondents; a notable difference. Helping to clarify this, an ANOVA indicated that the mean scores for democracy satisfaction across group types were: for Radicals, 3; for Reformers, 3.9; and, lastly, an average satisfaction of 6 for Conservationists. The results of ANOVA thereby underlined inter-group differences regarding views on democracy where they live. These results will be referred to again in Chapter Nine.

Finally, activist histories can be considered with this divided into memberships (Q.9) and activism (Q.10). Firstly, with regards to memberships held by respondents to other (non-environmental) groups, association to more than one group was common within the sample. Nevertheless, just under one-third (30 percent) of respondents indicated that they were not members of any other organisation than the Radical, Reformer or Conservationist group to which they were already known to belong. For activism, defined in terms of the types of protest behaviour they have previously been involved with, only one respondent answered that they had not undertaken any of the possible choices offered by the survey. The selection with the largest proportion of respondents (31 percent) involved all seven options listed in the questionnaire (Appendix Four). The second largest selection of actions was chosen by 19 percent of the sample and extended to six of the possible options, with only participation in direct action excluded. These figures therefore indicated that respondents were active participants in a diverse set of protest-related activities, from petition signing to partaking in demonstrations.

8.3 Sample Representativity

To investigate how far this survey sample represented the average demographic profile of each country, further data was drawn upon. Specifically, this involved the use of the European Social Survey (ESS) Round 8 data from 2016 which was the only round to include a relevant rotating module on climate change attitudes (ESS, 2016b). The ESS, to note, is a Europe-wide survey which is conducted through face-to-face interviews in which questionnaires are completed according to various methodological standards (see ESS, 2022a). As part of this, random sampling strategies are employed within case countries with the requirement to be representative of the wider national population (ESS, 2022b). Given the representative aim of ESS, this international survey provided a good point of comparison concerning the wider representativity of this project's participants and country population demographics in general. Comparative purposes were further facilitated by the use of the ESS questionnaire to inform the survey design of this project, including around demographics (Chapter Six). For 2016, the ESS country sample sizes were as follows: the UK, $n=1,959$; the Netherlands, $n=1,681$; and Sweden, $n=1,551$.

Running one-way ANOVA, age, political leaning and satisfaction with democracy within the ESS data was explored. Through this, the average age of respondents across the case countries stood at

51. Politically, ESS respondents clustered more towards the centre of the left-right scale and felt neither fully satisfied nor dissatisfied in democracy. Again, respondents from each nation fell on average towards the centre of the scale although there was a slight leaning towards satisfaction, particularly in Sweden. In comparison to the demographics of this research's respondents, there are similarities in terms of age with over 50s well-represented. With regards to democracy satisfaction, ESS' respondents were more satisfied with democracy in the country where they lived than Radicals and Reformers, but more akin to Conservationists' mid-high level of satisfaction. Considered in Chapter Nine, political orientation also differed between this research and ESS with those of the project at hand falling more on the left than in the centre on average. ESS gave no information about social class, so no comparison was possible along these lines.

Most respondents to both surveys were natives of their current country of residence, with a total of 11 percent of ESS' sample being born in a different nation. Interestingly, this figure was lower than that of the present research where the proportion of people not born in the country where they now live stood at 22 percent as the combined figure across the three countries. More consistency was found with gender, where at least half of all respondents were female (at 54 for the ESS and 59 percent here). For education, university graduates were overrepresented in this project by standing at 79 percent. Meanwhile, in ESS' broader population samples, the number of graduates never exceeded 30 percent (27 and 26 percent for the UK and Sweden, and slightly less for the Netherlands at around 20 percent).

Employment was another area for comparison, where there was again general consistency between ESS and this project. Those in employment comprised the largest proportion of the samples at 53 percent for the ESS, and 57 percent here. The second largest, meanwhile, was the retired at 28 and 32 percent for the ESS and this research, respectively. In this way, the survey sample of this research represented the broader populace of case countries insofar as respondents' employment status was concerned.

Lastly, and perhaps understandably, the sample of this research over-represented those who have been involved in some form of activism. For example, while a majority of this sample had participated in a demonstration, only six percent had done so within the ESS sample. The actions taken most by respondents in the ESS sample were signing a petition (40 percent) and boycotting

products (27 percent). In other words, while ESS respondents had partaken in a mix of actions, they did not do so to the extent nor range of actions undertaken of this study's participants.

Overall, therefore, using the representative sample from ESS as a point of comparison revealed areas of similarity as well as difference. Respondents in both samples demonstrated an average age of over 50, alongside a greater representation of females. In employment status too the samples were congruent with each other. The majority of respondents from here and the ESS were, to restate, mostly in employment and, if not the case, largely retired instead. It is in these ways that movement members captured by this research's sampling design most closely reflected the demographic profile of the wider public in each selected country.

Areas of difference between profiles, meanwhile, were found regarding education. For the present project, university graduates were notably over-represented within the sample compared to the general population statistics provided by ESS. The movement member sample further indicated a greater dissatisfaction with democracy and left-leaning politics, alongside a more extensive and broader participation in protest activities. Lastly, although a greater number of natives were reported in both survey samples, the proportion of non-natives for the present research was 10 percentage points greater than ESS. This group was thereby also over-represented, albeit to a lesser extent compared to university graduates.

Compared to the wider population, therefore, movement members represented a slightly different demographic profile overall, and Chapter Nine's results could subsequently be considered to speak more to those who fall closer to this profile than that of the wider public. Put differently, a generalisability of findings from the movement sample to national populations would be cautioned against. This was potentially underlined by ESS respondents' answers to questions concerning the extent of their concern for climate change: a central issue within the environmental and climate movement.

Here, only 23 percent of all ESS respondents combined across the three case countries indicated that they are either 'very' or 'extremely' worried about climate change, while and almost equal amount indicated that they are conversely 'not very worried' (25 percent). A low-level worry expressed through the answer of 'somewhat' gained the highest proportion of respondent choices at 48 percent. In this way, and linked also to demographic profile differences, any findings from

the movement sample may not be suited to generalisation to the general population but perhaps best constrained to movement members or similar others instead.

Nevertheless, when asked about holding a care for the environment and Nature, the two largest categories were those of 'very much like me' and 'like me' with 68 percent of ESS respondents expressing this view. In other words, although movement members presented a different demographic profile to the general public in the three selected countries, coupled with a differential degree of concern over the climate, expressions of personal care for Nature were perhaps the same. In this sense, it could be expected that images depicting Nature could still catch the eye of a wider demographic and thus at least hold awareness raising potential; potentially also where such visual communications are designed and disseminated by movement actors. Put differently, while the following chapter's results may speak more to image affects with movement audiences (or, adopting RM language, with constituents; Chapter Four), there remain prospects to communicate with a wider pool of possible adherents defined as those who hold this care for Nature and the environment but are not involved in any associated movement group.

Despite the demographic differences detailed here, therefore, common ground may still exist around the general notion of care for the environment; and this could indicate one area of importance should movement groups seek engagement with this wider demographic within their respective countries of residence. The survey was not the only source of demographic data for the present research however, and a brief observation of interviewees' demographic profiles should further be made.

8.4 Interviewees

It should be restated here how the intention and targeting of individuals for the interview stage differed from the survey. The interviews alternatively focused upon exploring movement imagery with participants not only as viewers, but also as users. This therefore included both movement members (as organisers or those involved in the design and use of movement visuals), and those with expertise in visual framing and communication of the environment and climate. The latter were not necessarily movement members themselves, although a cross-over of interests and work which enriched insights was nonetheless present.

By way of providing this brief note, therefore, there were $n=8$ supplementary interviews to complement the main themes and findings derived from the survey which was central to this research. Of these, most were male and white. The majority were also university graduates and, with one exception, British or European all mainly living in their countries of birth. In terms of group membership or previous activist experiences, two were clear that they did not have any background in protest movements before joining their current activist group or work position. Of the others, there was past involvement in Conservationist organisations and around animal rights issues, and current involvement in human rights given the cross-over between climate justice and social justice.

Two interviewees had previous low-level involvement in Reformer groups, with one's contribution based on occasional financial donation. Another had participated in anti-war protests and had been arrested for this involvement over a decade ago. Beyond these, a couple had been involved to greater or lesser extents in UK political parties (Labour and the Greens, specifically). It was interesting how a number of interviewees discussed how they began to become more concerned about climate change around 2018-19 with the advent of XR in the UK (with at least one interviewee having attended an XR meeting out of curiosity early on) and witnessing more local climate stresses such as wildfires in Sweden. In this sense, their climate-related concern and activism began fairly recently and almost simultaneously.

These were, then, some of the key characteristics either observable and/or raised through the opening question posed to interviewees, and namely whether they could speak about themselves and their backgrounds. What can the above tell us, however, about the overall participant profile for this research? It is this question which shall now be addressed in closing this chapter.

8.5 Chapter Conclusion: 'Typical' Activists?

Having now provided an account of who research participants were, both for the survey and interview stages of this project, how far do they meet the persona of the 'typical' activist identified in previous movement studies? Focusing mostly on the survey respondents since they were all movement members without exception, a number of relevant observations can be made.

Firstly, the 'typical' respondent to this research from the survey stage was an employed female university graduate, aged 56 or over, who is a native of the country in which they currently reside. They identify themselves as belonging to the middle-class and are more dissatisfied with democracy in their country than not. They hold additional group memberships outside of the environmental movement and have been active in a range of protest-oriented behaviours. Chapter Nine will also consider how they lean towards the left politically.

Meanwhile, the interviewees reflected to a fair extent some of these core survey respondent features. For instance, they were all employed; some within the movement full-time and others in alternative occupations. The majority held university degrees and resided in their countries of birth. Although interviewees were by contrast predominantly male, many had some prior involvement in activism before joining their present group or, in the case of non-movement experts, current job positions.

Resultantly, many of the traits of the typical activist remained applicable for this research in terms of gender, social class, education and, as discussed later, politics; with the closest similarities being between the survey sample and the literature identification of typical activists. With these demographic characteristics in mind, the ways in which these individuals received the six representative movement images embedded into the survey instrument, and those later utilised as part of the interview schedule, will be explored through the following chapter. In so doing, it will utilise the data to present participant judgements of Nature representation, image feeling and image use; relating these to the third research question and the theoretical query developed in previous chapters. It is to this that attention now turns.

Chapter Nine: The Reception of Movement Nature Imagery

9.1 Introduction

To begin, and as the content analysis demonstrated, movement imagery which pertained in some manner to 'Nature' and its construction spoke to a number of core themes. These included framings which underscored the continuing significance of different iconic imagery, the potential for ambiguity through the absence of textual elements, or a lens whereby central aspects of a 'landscape' ideal were present. As for representations of vulnerability and threat both to and from Nature and human society, this too was a re-occurring feature of the sampled imagery through wildfire photographs, for example. In response to the first two research questions, therefore, it can be said that the forms of Nature imagery created and/or shared by movement groups well-reflected key typology-based differences. Within this, greater dystopic or protest related imagery from Radicals and Demonstrative Outsiders was seen, alongside a more prominent focus on conservation by Conservationists. Nevertheless, elements of the Western landscape rendering of Nature were still visible across the movement as a whole, indicating such a viewpoint and value structure around Nature remains prevalent.

However, understanding what imagery is shared by the environmental and climate movement is not equivalent to knowing how its viewers react or feel; and this is crucial to how useful or effective an image may be in achieving any desired goals. Indeed, images – here including photographs, cartoons and illustrations – can be interpreted in many different ways by different audiences (polysemic), are potentially involved in framing work around issues and identities, and can be a powerful tool for evoking strong emotions (Chapter Two). As a result, they can galvanise, raise awareness of issues or events, engage viewers and promote protest participation or similar; to name a few possibilities.

However, at the same time images can be emotionally overwhelming and thus disengaging, or could be used to create division through the construction of us-them definitions of self and Other. Moreover, the polysemic characteristic inherent in images and their reading creates a situation in which the desired affects, influences or impacts envisioned by image producers and users may not be successfully conveyed to an audience; there is no guarantee. It is this complexity which was

noted earlier to make images and their study not only complex, but of deep interest and importance also.

Focusing on image reception, this chapter thereby speaks to the third and final research question; namely, *how is movement Nature imagery received by rank-and-file movement members*? This, as noted by Chapter Six, was investigated through a survey instrument designed to measure reception through the semantic differential. The question additionally developed within the theory chapter was again of interest here, with this concerning the extent movement imagery and its construction of Nature might offer a challenge to 'landscape'. This is the dominant cultural master frame conceptualised earlier as problematic for action on the environment and climate. The question here read: *To what extent could the cultural construction of Nature as 'landscape' appear to be reproduced within the movement*?

Survey questions 12 and 13 are therefore of central interest. These provided insights into how movement members perceived the construction of Nature and what feelings they in turn associated with these constructions (Appendix Four). The example images used here were drawn directly from or closely based upon the movement imagery from the content analysis and numbered from one to six. They reflected the core themes identified through this stage which included (Chapter Seven):

- Text in tension (Image One);
- Absence: accountability and guidance (all images);
- Reproducing landscape (Image Six);
- Looking through the eye of Apollo (Image Two);
- Where did the polar bears go? (Image Three);
- Wildfires: a new dominant icon? Threat and vulnerability (Image Five);
- Typology relevance (Image One, Four).

Moreover, responses to Q.14 will also be consulted throughout this chapter to understand in greater depth how respondents considered each image to be potentially useful as a communicative tool. Combining the data from across these questions thereby presented an opportunity through which

to examine how movement members 'saw' the Nature, felt about it and, on these bases, thought about the practical usefulness of each image in relation to its compositional and affective qualities.

In the end, this discussion suggests that, although the reviewed literature noted how it can be too overwhelming to effectively engage audiences (Chapter Three), negatively-framed imagery was found to be more useful for communicating environmental and climate issues. This was since they evoked in their audience a greater affective resonance and possibility to influence their actions as a consequence. Indeed, they were directly reported by movement members to be the most useful images. Under a Resource Mobilisation (RM) perspective, the data provided room to suggest that such negatively-framed images could be beneficial to movement group survival.

This could be realised through translating the greater affective impact exerted upon constituents and adherents into possible influence over their attitudes and membership decisions, perhaps with complementary text-based guidance, for instance. Following this, there were interesting comments to be made regarding the place of 'icons' within movement groups' visual communication, including continued room for the much used and clichéd polar bear.

Lastly, within these analyses a consideration of the landscape cultural construction is provided. This notes how it appeared to be reproduced in movement member reactions to the imagery, as well as in the imagery itself. This, it will be concluded, posed questions around the extent to which a challenge to this dominant and objectifying representation of Nature exists within movement visual communications. The main findings of this stage of the research are finally summarised, and interview data collected as part of this project is complementarily integrated throughout.

The images embedded into the survey instrument are presented by Image 9.1, and movement members' perspectives of how Nature was represented within each, as well as how this subsequently made them feel, will now be discussed.

Image 9.1: Survey Images

From left to right: *Image One*, "Orangutan Conservation", Alain Compost/WWF (reproduction for academic purposes allowed with email permission from WWF UK); *Image Two*, "The Blue Marble", NASA Marshall Flight Center (CC BY-NC 2.0); *Image Three*, "The Last Polar Bear", Gerard Van der Leun (CC BY-NC-ND 2.0); *Image Four*, "Demonstration by Extinction Rebellion in Potsdamer Platz, Berlin, 07.10.2020", Stefan Müller (CC BY 2.0); *Image Five*, "Wildfire", USFWS, Southeast (CC PDM 1.0); *Image Six*, "Sunrise over Rockford Common, New Forest, Hampshire", John Miller/National Trust (no restriction).

9.2 Semantic Differential and Image Use

In the following analysis, therefore, each image will be considered in turn and the semantic differential data concerning Nature representations and the feelings around these will be discussed. As part of this, the discussion will be expanded upon through consideration of the third directly relevant survey question regarding what uses movement members believed possible for each image according to their reading of it and the feelings it helped produce. Linkages to the theoretical underpinnings of this work are also made. These analyses shall begin with the first image shown to survey participants and centre on group-level comparisons. Results for the country-level are alternatively presented in Appendix Eight.

It is worth noting beforehand, however, that the vast majority these participants expressed belief in both the efficacy (96 percent) and importance (93 percent) of images within environmental and climate-related communications (survey Q.3a and b, respectively). This was expressed across all group types, with the mean response difference between groups not exceeding .02 and -.05 according to ANOVA results. This indicated a high level of inter-group agreement on these points. In general, therefore, it could be expected that participants would view the forthcoming imagery in largely positive ways, at least in terms of image use. As will be seen, although the overarching idea was that visual mediums are central communicative tools for environmental themes, how far this remained the case when faced with specific images varied according to the positive, negative or neutral framings present. Image One will now be considered, with this image presenting a more positive success story frame in the area of conservation.

9.2.1 Image One: Orangutan Conservation

This image was used by the UK branch of WWF which edited the photograph to include a textual element making a statement concerning conservation efforts which restore orangutan habitats. The image, therefore, centrally depicts a single orangutan among the trees. Indeed, the text could here be seen to aid in the image's reading, underlining the core conservationist message the WWF intended to communicate to their audience.

Referring to the theory and hypotheses developed earlier, this conservation-oriented image was expected to appeal most to Conservationists. This was not only with regards to the issue focused upon, but also the presentation of an arguably clean, healthy-looking Nature. Certainly, Conservationists shared 72 percent of all conservation-related imagery within the content analysis, with the next highest share coming from Reformers which accounted for only 17 percent of the final sample (Chapter Seven). Meanwhile, with the absence of clear threat or urgency, this type of image was suggested to hold lower appeal to Radicals who may lean less towards cleanliness and success stories (such as of conservationist efforts). Instead, they were assumed to prefer images which support their core claim of an urgency to act in response to the 'climate and ecological emergency' (XR, 2022:3). In line with this expectation, themes of vulnerability and threat appeared in 64 percent of Radical images; a greater frequency of usage than the Conservationists (20 percent; Chapter Seven). Reformers were expected to fall somewhere in between based on

their typology characteristics; sharing some of the radicalism of Radicals alongside a degree of institutionalisation like Conservationists.

Image One:

Source: "Orangutan Conservation", Alain Compost/WWF (reproduction with email permission from WWF UK).

Turning attention to the semantic differential results, the relevant survey questions read 'how far do you feel "Nature" is being depicted in the following ways?' (Q.12) and 'how far does it make you feel the following?' (Q.13), respectively (Appendix Four). Eight 7-point bipolar scales of adjective pairs were provided underneath both questions through which responses were collected and measured. Figure 9.1 presents the mean scores for each of the three case group types across these scales which reflect the Nature representation and image feeling variables from the survey. These were the two sub-concepts used to measure overall image meaning.[34]

Figure 9.1: Image One Semantic Differential
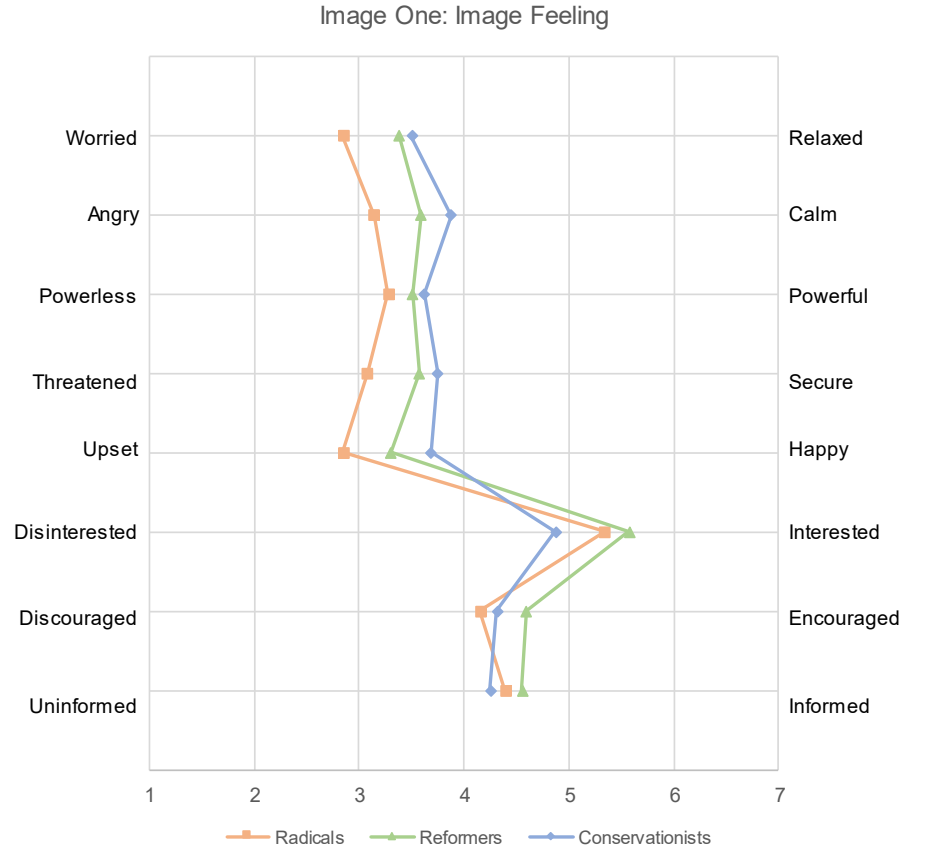
Immediately, a broad congruence between the perspectives of Reformers and Radicals can be seen, with their positions largely shared by Conservationists, too. As a result, all respondents regardless of group affiliation viewed this orangutan-centred conservation image as presenting Nature as mostly clean, safe, healthy and beautiful. While minimal overall, Conservationists showed some greater variation to the other two group types; seeing this image as additionally non-local, slightly less healthy and a bit safer. Despite these average responses, the trends and general evaluation of Image One remained shared. This included how surveyed group members leant more towards perceiving a vulnerability-based representation of Nature. This, however, was not particularly strong given average responses' proximity to the scale's central value, denoting ambivalence (Gardner, 1987).

These leanings may nevertheless speak to the image's central and purposive framing, and specifically its use of text. This text, in attention-drawing bold capital letters highlighted against the image background, read: 'TREE PLANTING HELPS ORANGUTANS RECOVER'. It therefore indicated that there has been deforestation or other forms of habitat decline in the first place which has threatened these animals and thus required tree planting efforts to address. These efforts were portrayed here as being valuable and successful for habitat and animal protection.

Unsurprisingly, the orangutan image was seen to be non-local, but interestingly as marginally more familiar than not across group types. This familiarity is interesting, especially in the context in which Image One was deemed as presenting a strongly non-local Nature. Any slight familiarity with this Nature, it could be suggested, might relate to previous exposure to this habitat issue and/or to the animal in question through other visual media (images, wildlife and travel documentaries), or perhaps even zoo visits. Resultantly, it may be that while the direct experience of these environments and animals in non-local areas remains absent, the Nature representation itself has been rendered less unfamiliar through these mediums.

This modicum of perceived familiarity might also account for the somewhat constrained leaning towards judging the presented Nature as 'wild'. It may further be based partially upon an understanding that this image is one communicating conservation activities – and therefore human efforts and interventions – in these environments and habitats through tree planting (as well as through the preceding tree destruction, although this is not explicitly conveyed through the image).

Survey respondents, therefore, still arguably gained an understanding that the scene depicted is one within which human activities are both present and impactful.

As will be seen with the later images, their reception in terms of Nature representation understandings remained consistent throughout much of the data set, indicating congruence of compositional reading by movement members. For Image One, these broad similarities regarding answer trends carried through into how the image was reported to make respondents feel, albeit with some greater inter-group differentiation. Many of the average responses, however, fell close to the central value and so indicated that any evoked feelings from Image One were not very palpable, or again possibly ambivalent.

Based on the data, this was slightly less the case for Radicals who felt more worried, angry, threatened and upset than those from other groups. It was also most visibly not the case for the 'disinterested-interested' scale with which all group types indicated a greater feeling of interest when presented with the photograph. Here, it is additionally important to note how it was the Conservationist respondents who indicated that they were on average less interested in this image, and were more ambivalent overall with regards to how Image One made them feel, compared to the responses reported by Radicals and Reformers. Accordingly, therefore, it appeared that Image One achieved more engagement from Radicals and, to a lesser extent, Reformers, than with Conservationists. Given the match between Conservationist respondents and this conservation-focused (and sourced) image, this result was unexpected. It could have been assumed, for instance, that Conservationist groups' imagery may have resonated most with their own members, including affectively.

An explanation for these findings could be found in an assumption that Conservationists are frequently exposed to similar imagery and success stories as they receive communications including newsletters, or see social media posts, from the groups of which they are members. This would follow the logic like that which suggests that polar bear imagery has lost its emotional evocativeness in part through viewers' overexposure to such scenes (Chapter Three). Alternatively, it could reflect levels of involvement in movement groups insofar as membership structures are concerned. One idea offered here is that Conservationist organisations represent most keenly a cheque-book membership scheme vis-à-vis the direct, physical and thus more personal engagement required by those partaking in XR, for example (Chapter Five). Resultantly, a greater

issue or story detachment may be held by Conservationists to a greater extent than other group type members, despite Image One speaking explicitly to a congruent conservation theme.

To continue, while each group average suggested respondents felt more informed than not, the data again leant towards a central position on this scale. This raised another interesting point given the lower-level sense of being informed. Specifically, it concerned how this was the case despite the use of text which had been edited into the original orangutan image. The presence of text, as an element which guides readings of an image's content and meaning (Benjamin, 1969[1935]), should arguably provide a clear and concise story which has as one of its central purposes the aim to inform viewers about what is going on. The effect of the text in Image One, however, did not seem to achieve this to any great extent based on the uninformed-informed scale data.

Certainly, the way text can add meaning was also indicated in a slightly different way within an interview with a Radical member. Here, they noted how a central slogan of XR had strongly resonated with them since it was 'close to their own thoughts'. The slogan stated: 'hope dies, action begins' (Interview with XR Sweden organiser, 21st April 2022). This, it is suggested, could highlight another means by which text, purposefully embedded within an image perhaps as part of a campaign, could effectively engage an audience and inspire group involvement or similar. Although the interviewee spoke of a Radical slogan, Reformer and Conservationist activities are not exempt from the possibility of developing poignant slogans and so these points could remain applicable and effective in a general movement context.

The data also showed little encouragement being felt by respondents as they viewed the image. This may perhaps reflect how the image's audience were not clearly informed about what it is that they can do to contribute, and maybe also through the image text's highlighting of success. In the latter sense, this might reduce the feeling of a need or impetus to act since work with positive outcomes is already ongoing without their personal contribution; or, at least, increased contribution if they already donate, for example. Only a slight feeling of encouragement could additionally suggest that the issue is too abstract, with a focus on animals in non-local places which could produce a degree of unrelatability. Indeed, recalling the literature of Chapter Three, an absence of human stories and/or known locations can produce distance and disengagement (for instance, Chapman et al. 2016; Duan et al. 2017; Wang et al. 2018). That said, any such distance and abstractness from viewers' everyday lives did not render Image One completely disinteresting.

Indeed, and as already noted, an interest was expressed in this image from across group types. There was, then, a familiarity and interest in this image's subject despite its perceived distance to survey participants.

This, it is suggested, could reflect respondents' concerns around this subject. For Radicals in particular, average responses showed that they were the most worried and upset by the image, mixed with a slightly greater anger and sense of threat compared to those from other groups. This anger and upset difference could be based on Radicals' critical viewpoint which might emphasise more the reasons behind the original need for these conservation efforts, rather than adopting a reading which focuses on the positive conservation story being told. A polysemic character to the image could thus be seen more clearly in respect to image feeling.

Presenting this image within the interviews revealed that it was not necessarily the text which was read, but rather that the central animal around which meaning was drawn. Related to preceding points, this was both positive in line with the original Conservationist framing (Interview with XR Global Media Member, 7th October 2022b), and negative as a representation of species loss coupled with identification of 'us' as responsible and needing to take action to address this challenge (Interview with XR Global Media Member, 14th July 2022; Interview with XR Global Media Member, 7th October 2022a). The positive perspective interestingly provided a view not only of a healthy animal and habitat which is in accordance with the survey data, but also as an image 'showing how things can and should be' (Interview, 7th October 2022b).

It could therefore be understood as a sign not only of destruction, but also as a symbol of a better and achievable future. Whether necessary actions are subsequently taken by viewers either through the above positive imaginaries or negative readings nonetheless remains an open question. This is especially so when placed in context with survey results indicating a more ambivalent position towards being encouraged and informed; although a majority of respondents deemed that Image One could facilitate movement group membership.

Whatever the case, the end result based on the survey data was that of a largely shared reaction to and interpretation of this image. It was one, however, which was not very strong with the exception of interest levels. Certainly, focusing upon the photograph's possible influence over viewer actions after they have seen the image, there was not a notable impact. This could be measured regarding how Nature representation and image feeling influenced levels of interest, encouragement and the

sense of being informed by the photo. Put differently, and with reference to the dimensions of meaning relayed in Table 6.3, the Evaluation of the presented Nature was mixed yet consistent across group types. Meanwhile, the data indicated little overall Potency generated by this image, with most average values falling roughly around the central point of the relevant scales. Lastly, the image did produce interest yet did little to encourage or inform (or discourage and uninform, for that matter). With respect to Activity, therefore, Image One was again limited in impact across all group types.

This image could therefore be regarded as relatively ineffective in terms of its possible affective and behavioural influence upon viewers, extending to Radicals, Reformers and Conservationists alike. Certainly, the scales used to measure these features in movement member responses to the images did group well under the EPA categories (Osgood, 1979). This thereby indicated that greater confidence that these scales did indeed measure what they were designed to could be held, with this reinforced by good reliability (alpha) levels (see Chapter Six; Appendix Five).

Overall, Image One was received as a largely positive representation of Nature which evoked mostly ambivalent feelings. It's impact, therefore, appeared constrained to inspiring perhaps only a passing interest in the photographic subject and success story being conveyed. However, while Nature representation and image feeling could reveal much about how an image (and others like it) is received by individual movement members in line with RQ.3, a third aspect can be examined. This concerned how respondents themselves judged the possible effective usage of the image (survey Q.14; Appendix Four).

In this way, respondents not only reported how they perceived the representation of Nature presented to them and, by extension, how such representations made them feel. Instead, these insights were additionally translated into respondent ideas concerning the ways in which a given image has the potential to be a useful communicative tool. They did so by choosing the functions they believed applicable from a set of pre-defined use categories, these including: awareness raising; influencing attitudes; influencing behaviours; informing debate; promoting environmental group membership; promoting participation in protest; catching people's eye; or, lastly, none of the above. Frequencies related to these categories were based on aggregate and group type-specific samples, and are summarised in Appendix Nine.

Turning attention to this complementary data revealed that, regardless of group type, the majority of respondents believed this image would be useful for awareness raising (80 percent) and catching people's eye (72 percent). Respondents across all group types also largely decided that Image One could potentially be useful to both influence attitudes (54 percent) and promote environmental group membership (59 percent). In terms of inter-group comparisons, there were areas around which group types shared similarities, but also points of departure. These were most clearly visible through differences of ten percent or over in use category selection between the respective group type samples.

Initially focusing on areas of difference, Conservationists rated the potential of Image One to influence attitudes less than the other group types (standing at 38 percent compared to 54 and 60 percent for Radicals and Reformers, respectively), and likewise for influencing behaviours. The notable difference in the latter case, however, was only in comparison to Reformers with the Radicals in-between (31 percent for Conservationists, 46 percent for Reformers). Larger Radical-Reformer differences were also seen with regards to two use categories. Specifically, this concerned catching people's eye (Radicals, 67 percent; Reformers, 79 percent) and 'none of the above', with 12 percent of Radicals selecting the latter response compared to only two percent of Reformers.

This indicated that the Radicals saw less potential in this image overall, which would be expected according to group typology expectations (Chapter Five) and the image theme itself (Chapter Seven). To restate, this theme captured a beautiful, largely unthreatening Nature with a non-challenging framing, represented by the conservation success story promoted on the background of heathy-looking wildlife within Image One. While Radicals remained in closer agreement with members of the other group types on the whole, the figures were slightly lower in terms of awareness raising and catching people's eye.

That said, it was the Reformers who responded most positively to the potential of this image to get noticed and raise awareness, whilst also having the least number of members choose the 'none of the above' category. In these notable cases, Reformers were followed by Conservationists and then, as indicated, Radicals. Thinking back to the group typology and the image itself, this is a somewhat unexpected result. To reiterate, it was expected that Conservationists by virtue of their group affiliation would express a preference for images presenting clean, beautiful, healthy and

unthreatening representations of Nature – as Image One was seen to do by all group types – thereby resulting in a greater affect or engagement around these images. Radicals, with an eye for threat and urgency, would prefer alternative imagery. Resultantly, Reformers would have been expected to fall in-between the other group types according to their blend of institutionalised and radical characteristics. However, it was the Reformers who appeared to see a greater potential use for this image than Conservationists.

For Conservationists, their lower rating of Image One's potential uses and feeling evocation may relate to exposure; a point suggested above. With this, a lower perceived influence over attitudes and behaviours may have been indicated by Conservationist members on the grounds that they are more frequently exposed to this form of image and already donate towards these activities. As such, its effects over them could have gradually weakened over time and with the frequency by which such imagery may have been encountered. Put differently, a general loss of potency could perhaps underly some of these results.

Staying with this group type, the only use category for which they were the highest scorer concerned promoting of environmental group membership (at 63 percent of all Conservationist respondents). This could reflect the success story framing offered which indicated that a contribution can be made to environmental protection and restoration, even if this is realised through an arguably detached financial donation scheme. Certainly, text can alter how images are received and responded to (Interview with a Conservationist Framing Expert, 28th April 2022; also Benjamin, 1969[1935]). Nevertheless, the encouragement to act and information on how to practically do so, as seen through the semantic differential data and visualisation, remained fairly weak concerning Image One.

As such, this Conservationist image, inclusive of embedded text, was seen by members from all movement group types to be most useful for drawing attention to itself and its visual content. They nonetheless indicated further that the image's usefulness may not extend beyond these functions with an overall lack of encouragement and sense of being informed expressed by respondents. It may have been assumed that Image One might hold the greatest potential influence over Conservationists in terms of affect and usefulness, although reported feelings here spoke to the absence of a strong influence across scales.

Taking the above into account, what could these results suggest for Image One as a communicative tool? Firstly, it could be of interest to those who encounter it but, secondly, the affectivity which follows may not be of any particular strength, including to effectively encourage and inform viewers. Although its relative affective weakness for Conservationists may reflect a greater exposure with this form of image, their responses to the survey nonetheless remained in-keeping with those provided by Radicals and Reformers. These findings would therefore seem to indicate that this image type might not be a very effective communicator of environmental and climate challenges. Nor, the findings suggest, could this image be particularly effective in inspiring change or participation in activities connected to these issues. This stood, interestingly and against expectations, also for Conservationists which explicitly conservation-oriented images may largely seek to target. This targeting could be to maintain donations to the organisation in order that it may continue the work being highlighted.

Moreover, Image One in these ways suggested that the levels of pre-existing concern surrounding the communicated issues does not necessarily translate into greater image impact. Indeed, looking at data regarding the concern expressed around conservation and biodiversity challenges from the survey (Q.1) revealed that 81 percent of Conservationists were 'extremely worried'; as would be expected (Figure 9.2). The result was similarly high for Radicals (77 percent), and less so for Reformers (67 percent). The overall mean response across groups leant most towards this extremely worried category, with 'very worried' the second most reported response. Within this, ANOVA indicated that the greatest inter-group mean difference was between Radicals and Reformers, standing at a still comparably low -.11.

Consequently, while image concern would suggestibly contribute to the influence of an image upon an audience, such as by catching their attention and promoting engagement, it was not seen to be sufficient in and of itself. The lesser image usefulness reported by Conservationists may support this claim despite their higher level of issue concern and group-issue congruence. Reformers highlighted this in a different manner through the lowest concern for conservation and biodiversity based on response frequency and mean variance, yet the most positive reception to Image One. Framing strategies would thus appear significantly important to engaging audiences, including those with greater or lesser degrees of existing concern regarding the issue visually communicated. That said, Image One's positive frame did not appear to produce consistently

strong responses from participants across group types, and so the image and story construction through text may require revision to better achieve producer aims.

Figure 9.2: Concern for Conservation and Biodiversity by Typology, *n*=137.
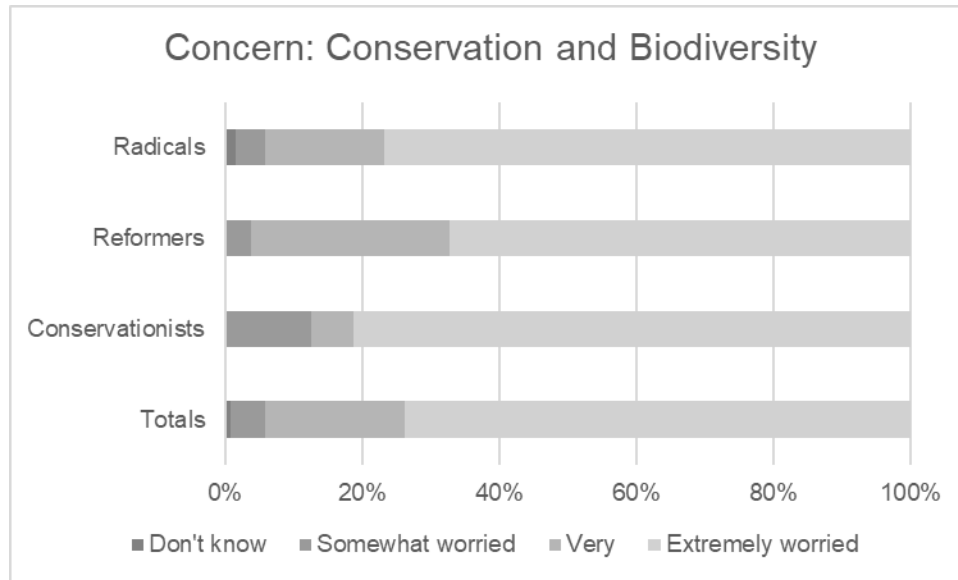
The purpose of encouraging donations maybe does not require an image which inspires or moves viewers greatly, and perhaps raising awareness of success is sufficient for these ends. Certainly, if this is the case, it would be important for competition over the resources necessary for organisational survival and the continuation of group activities (McCarthy and Zald, 1977; Melucci, 1996). Given the lack of strong encouragement or empowerment reported by respondents, the resources desired through any use of this image may best target an existing pool of constituents rather than adherents who may share some general concerns but are as yet uninvolved in the organisation (Crossley, 2002; McCarthy and Zald, 1977). This latter group might alternatively require a stronger, more evocative and informative visual communication in order to become constituents themselves; thinking here of the role moral shocks can play in generating movement participation (Jasper and Poulsen, 1995). These points would thereby represent the use of images as tools for recruitment and resource access under an RM perspective.

The success story framing constructed through the use of text could further be seen to not be part of a framing strategy aimed at reaching or connecting disparate individuals or groups. This could have included, for instance, broadening the issues spoken to in efforts to widen organisational appeal (Snow et al. 1986). Indeed, Image One and its text does not specify the group which is publishing the image and so does not inform the viewer that this success story is related to one of their own specific campaigns or actions. The absence here could further weaken the story they tell and the potential 'pull' factor for adherents, especially within a competitive social movement 'industry' alongside other similarly-oriented groups desiring the same resources (McCarthy and Zald, 1977). This is perhaps another perceivable shortfall of the image and its possible influence over viewers, including from a framing perspective. The discussion so far, however, still says little about the use of images for another form of frame development which extends beyond resource access; namely that designed to counter a dominant master frame (Diani, 1996).

Based on the above, Image One would seemingly not contribute to a visual, communicative challenge to dominant narratives or existing human-Nature relations. Certainly, the image's own nature and the confirmation offered by the data highlights a strong emphasis on aesthetic beauty and untroublesome Nature (as clean, healthy and not unsafe nor particularly threatening or under threat, for example). Specifically, this draws similarities with a dominant Western aesthetic reflecting a landscape rendering of Nature. Indeed, the central message is one of humans intervening in Nature to restore and protect it. In other words, it is an image which could be read as reproducing the notion of an external Nature which is acted upon by humans, positively or otherwise, and which is not granted its own agency: not the trees nor the animals which inhabit the canopies they provide. These are arguably depicted instead as a neutral material in need of human support and cultivation to survive; thus surviving not by themselves but explicitly through the work of Conservationist organisations, positive and effective as this may be.

Indeed, as one Conservationist-turned-framing expert interviewee observed, although the orangutan conservation image is 'vaguely positive' in its messaging, and places the subject of concern in the centre, it says little about the underlying issues (Interview, 28th April 2022). As this individual suggested, the direct opposite of this positively-framed tree planting image could be that of felled forests (namely, the invisible deforestation behind Image One's conservation need; Image 9.2). Related to the absence of a direct issue reference, the interviewee also identified that

in contrast to the textual message about new tree planting, the trees shown in the image appeared old. There were remaining questions also about what types of trees were being planted, how large they were and where this was taking place (Interview, 28th April 2022).

In these ways, there is an invisibility of not only the causes of deforestation necessitating the reported conservation, but also of responses to this challenge. This poses a curious dynamic or tension within Image One in which both the cause and response are central to the message being conveyed, but were only indirectly incorporated into the visual frame. This indicated that the image may not be very informative, thereby reflecting the ambivalence contained within the SD data presented above. Put differently, the image offered a somewhat abrupt statement about the benefits of a Conservationist activity, but did so with little clarity and detail as to the why, where and whom involved.

Image 9.2: The Felled Forest: An Alternative to Orangutans?

Source: "Deforestation near Lieki, DRC", Axel Fassio/CIFOR (CC BY-NC-ND 2.0).

Placing the challenge at an image's centre was further discussed as holding positive potential based on another interviewee's personal experiences as a professional environmental photographer (Interview with an Environmental Photography Expert, 9th June 2022). Once prompted to reflect on their idea of an 'effective' environment-related image, this interviewee discussed a simple yet poignant image which reshaped understandings of deforestation. Specifically, the image used the human cause of deforestation as its central focus and, through highlighting an individual's participation in illegal labour out of necessity, demonstrated that it was not just large industry involved in these environmentally-harmful practices. A social and economic justice element thereby existed, too.

As a result, according to the interviewee this image had the impact of changing perspectives around deforestation and the issues that contribute to it (Interview, 9th June 2022). In the context of this research, this suggests the important impact of visually referring not only to an issue, but also to the causes of that issue for informing debates, attitudes and, possibly by extension, behaviours. This was not directly achieved by Image One, even though viewers engaging with the image for a longer time may be able to identify the reasoning and implications behind the text; as was the case with an abovementioned interviewee (Interview, 28th April 2022).

Sourced form a Conservationist group, and drawing upon the theoretical developments of this project, this organisation and group type appeared not to be engaged in more fundamental claim-making against an 'Other' through this image. This Other including a specific actor or dominant master frame like a 'landscaped' vision of Nature and people's relationship to it. In the absence of this deeper claim-making and normative, symbolic-level calls for change, Image One and the group which produced it would arguably not qualify as part of a social movement (Touraine, 1985; also Melucci, 1996). Consequently, it falls short of contributing to a shift from agency-stripping landscape perspectives towards re-defined human-Nature relations; perhaps encapsulated through the ideas of the New Climatic Regime and interwoven agential connectivity of Latour (2014, 2018; Latour et al. 2018).

Image One, put differently, offered little by way of a more significant shock or influence, regardless of the different group types or issue concern levels reflected by the sample. This can relate to the beautiful, passive representation of Nature which remained unchallenging to viewers in terms of both Potency and Activity. It may be that this image could serve to maintain financial

donations which fund Conservationist work in these non-local environments, including through the success story framing. However, framing in this way arguably does little to question, or even upholds, a detached relation between viewers and Nature. It does not contribute to a conflict over cultural patterns, inclusive of the landscape master frame (Touraine, 2000; Chapter Four).

In these ways, Image One and similarly framed images could therefore be said to not be effective communication devices should the intention be to inspire, challenge or pave the way for a newer human-Nature relation which might hold the potential to address core underlying issues like deforestation. These are the same issues, to conclude, that require Conservationist tree planting in response to the treatment of Nature as an external, objective resource or material under a perspective akin to the beauty-focused and arguably problematic aesthetic of landscape reproduced within Image One itself.

9.2.2 Image Two: The Blue Marble

Moving on, survey participants were presented with the survey's first climate 'icon': the view of the Earth from space first captured by Apollo 11 and enjoying widespread use since, including that which extends across political divides (Sachs, 1999). Recalling earlier chapters, this image has been discussed as the site for differing interpretations around interconnectivity or globalisation processes (O'Neill and Smith, 2014; also Interview, 28th April 2022), and as narrowing the focus to a single issue; namely, global warming (Manzo, 2010a). Sachs (1999) well-synthesised a range of these perspectives, incorporating notions including: finitude and fragility; interconnectedness; 'we' and 'home' (p.122); an aestheticized object of 'tranquil majesty' (p.115); an object of scientific study; and, as a resource for management and domination. Moreover, this view of the Earth from space could be seen as removed from people's lived experiences and subsequently of less saliency for them (Chapter Three).

In such a way, this type of image may contribute to the (spatial) distance between people and visualised climatic challenges (Duan et al. 2017). It should also be remembered that most Blue Marble imagery recorded through the content analysis came from Demonstrative Outsiders which, for aforementioned ethics (Chapter Six), were excluded from the survey stage of this research.

This image's prevalence nonetheless indicated that Earth imagery has been well-used within the environmental and climate movement. Indeed, it was adopted as the logo of FFF internationally.

Image Two:

Source: "The Blue Marble", NASA Marshall Flight Center (CC BY-NC 2.0).

With this in mind, the second image presented a fairly congruent set of averages across the scales for all case groups, similarly to Image One. This was coupled, however, with more pronounced Conservationist differences concerning image feeling. To focus on how Nature was seen to be represented by movement members, Figure 9.3 demonstrates that the Blue Marble was largely seen to be a positive representation; associated with clean, safe, beautiful, wild and healthy adjectives as opposed to their opposites. It is interesting also that on average respondents saw the Nature presented to them here as being notably more familiar than unfamiliar. This, it is suggested, could relate to the general, frequent usage of such a view of the Earth. It could therefore provide a familiarity with the scene as an iconic image, even if the audience's viewpoint is always that assumed by a camera and remains never directly experienced without the mediation of technology.

Consequently, the Blue Marble image could introduce a distance between what is being seen and people's everyday experiences. Put differently, the image of the Earth at a distance by extension creates a separation of people from the planet given the absence of direct reference to their daily lives, place knowledges, experiences and the like. It is perhaps unsurprising then that there was a general leaning towards perceiving Image Two's Nature as slightly more non-local.

Conservationists here took a comparably more central position along the scale, indicating that the Earth presented by the image was not completely detached from respondent lives in terms of perceived localness and familiarity.

In this sense, it is interesting too that the factor analysis returned an additional factor for this image. Containing only one item, this fourth factor was labelled 'localness' given the sole inclusion of the non-local-local scale. It nonetheless remained questionable as a factor since it did not contain three or more items, nor leant itself to reliability tests (Krabbe, 2016; Chapter Six). The remaining three factors again related largely well to the expected scale categorisation under an EPA framework, with each attaining an acceptable level of internal reliability as measurement tools (Appendix Five).

To continue regarding how this icon made respondents feel, average responses from each group type did not stray too far from the centre of the scales, with this particularly true for Conservationists. On the whole, respondents from the three types indicated that they did not feel relaxed nor worried, neither threatened nor secure. They were not encouraged or discouraged, nor informed or uninformed. Differing slightly from this in-between situation, Radicals and Reformers felt slightly more powerless. This could perhaps be understood in the sense of being made to feel small when faced with the vast scale of the whole planet, and such a feeling could be overpowering given the difficulty of placing oneself within this large-scale scene (Interview, 28th April 2022). The other item with average responses farther away from the central value was that of positive interest levels. This could be taken as denoting an enduring appeal of images of the Earth from space despite reported familiarity with the scene.

However, as with Image One respondents also reported an absence of encouragement and information. The image's overall impact beyond gaining an audience's interest with the size and highly-rated beauty of the planet from space was thus lessened. The issues are also somewhat hidden from view in this image, as was again the case with Image One (although the latter made indirect reference to deforestation through its text). These aspects could have contributed to the ambiguity with which participants felt informed or encouraged by the image, with the addition that it could be difficult to situate human (or animal) stories within this vast tapestry.

There are, put differently, no clear stories, challenges nor opportunities for action presented by the image. There is no direct sense of danger nor urgency; of threat nor fear. Little vulnerability was also perceived by movement members across all group types, alongside a representation of Nature

characterised through the data as beautiful, clean and healthy, as well as safer and wilder. Based on this, it would not appear that the linkage between the Blue Marble and global-level processes of global warming were strongly made by participants. If such a linkage was strong (representing a synecdochic function akin to the polar bear), it would have been expected that greater vulnerability, threat, worry, anger, dirtiness and a lower level of health would have been present within the data (compare with Image Three, below).

This, however, was not the case according to average responses across the case groups. These alternative results could perhaps have emerged should additional symbolism have been included within the image, like the use of the colour red to explicitly denote heat, fire and danger (Chapter Seven; also Doyle, 2007; Manzo, 2010a; Walsh, 2015). Such a symbolic layer might have guided a more negatively-framed reading of the image. A colouring of images in this way, despite its potentials to enhance meaning-making and claim legibility, only appeared in two percent of the full final sample of images coded through the content analysis.

As it stood, the Blue Marble again represented a fairly passive, neutral, aesthetically beautiful and interesting picture. Its use, therefore, may be limited and invite engagement which rests upon an evaluation of the enduring visual spectacle of seeing the Earth from space. In the absence of text or symbolic layers to further guide the reading, it is perhaps arguable that Image Two could be less effective at communicating environmental and climate challenges than Image One. This is because, without additional context or symbolism, a lack of framing is perceivable. In this sense, and like Image One, the Blue Marble as presented to movement members through the survey is here argued to not be involved in any challenge to dominant framings of human-Nature relations. Indeed, the understanding and engagement with this photograph reflected an evaluation and appreciation of visual beauty from the standpoint of a distanced viewing subject. Without a campaign, action or general group-related element, it is also questionable how far Image Two could serve a resource acquisition function perhaps seen with the success story framing of the orangutan conservation image.

However, how movement members perceived the potential usability of Image Two for various campaign-related ends can be considered. Regarding this, the only use category chosen by over half of all cases within the sample was catching people's eye at 62 percent. The next highest category was awareness raising which was perceived possible by 46 percent of surveyed

movement members, while just under one-quarter of all respondents judged this image to have potential to fulfil 'none of the above' uses (23 percent). Coinciding with how the SD data was analysed and understood, the results concerning image use judgements confirmed that Image Two was a predominantly ineffective communicative tool, except perhaps for its visual appeal.

While this was central to the data as a whole, there were nevertheless many areas of diverging opinion among the group types when looking at differences of ten percent or more between respective sample frequencies. To elaborate, Image Two seemed to be of lesser perceived usage for Conservationists than for Reformers overall, with Radicals often somewhere in-between. As noted, however, less than half of every group types' members chose each of the use categories despite group-level differences.

For Conservationists, respondents judged this image to be particularly ineffectual with significantly lower expectations that it could be useful for informing debate and promoting environmental group membership (both envisaged feasible by only 19 percent of these respondents), as well as promoting participation in protest (six percent). While enjoying more support, the degree to which this image's awareness raising potential was judged possible still fell well below the levels set by those from other group types (Appendix Nine). It was also the Conservationist sample from which 31 percent of respondents selected the 'none of the above' category. This figure was only slightly higher than that for Radicals (29 percent), but notably more than for Reformers (13 percent). Indeed, Reformers rated Image Two with the greatest overall positivity in comparison to the other group types. Although the figures remained low overall, this was seen clearest with regards to influencing both attitudes and behaviours (52 and 38 percent, respectively), for instance.

These results demonstrated that the view of the Earth from space resonated more with Reformers than with the others, and especially compared to Conservationists. By examining the data, Conservationists indicated that Image Two was of little affective Potency or Activity encouragement; expressing too the lowest average interest compared with Radicals and Reformers. In this way, it can be suggested that the Blue Marble is an ineffectual image and would not be useful except for catching people's eyes insofar as communicating with Conservationist audiences is concerned.

These points were supported by an interviewee with a Conservationist background who, when presented with Image Two, expressed generally positive feelings alongside some negativity; speaking specifically of 'wonder' and 'curiosity' (interest) mixed with sadness (upset) at a perceived fragility (vulnerability). While feelings leaning more towards sadness were not shared by the Conservationist group average on the upset-happy scale, this interviewee nevertheless shared the questioning of the image's potential uses, particularly to promote positive environmental and climate-oriented actions (Interview, 28th April 2022).

Image Two may nonetheless have a slightly greater affect in terms of inspiring senses of powerlessness and interest, as mentioned above. Beyond catching eyes, however, respondents from the other two types also saw a comparably greater potential for raising awareness, informing debate, influencing actions and promoting environmental group membership. This would therefore suggest that the image does hold possibilities to create not just intrigue in the visuals, as found with the image feeling SD. Instead, the image use question opened up the ability to think about this image as possibly informing and influencing people to become involved in environmentally-oriented groups; although still just under half of respondents agreed with such an idea.

Therefore, while Conservationist audiences may not receive Image Two positively, there remains the potential that it may say more, and hold some degree of influence over, those who are (or perhaps could become) constituents of Radical or Reformer groups. If the Blue Marble were to be used in a communication campaign, therefore, it may work better if the target audience is composed of members of the latter two groups, and not Conservationists. Indeed, looking at Conservationist responses overall it would appear that Image Two would not be an effective image. This apparent weakness may result from a lack of framing and of situating issues and audiences within this frame to construct clear and resonant messages.

The Blue Marble could therefore be seen as a visually pleasing and intriguing image, but one which says, challenges and inspires nothing in particular. The response from Radicals and, more so, Reformers does temper this conclusion to some extent. However, while their evaluation of image use was on the whole more favourable, this was largely in comparison with the particularly low judgement of Conservationists and so were not high in and of themselves. Ideas of efficacy coming from the other group types, therefore, should not be overstated; Image Two still appeared to be largely passive in its framing, effects and affects. In general, then, and while sharing a beautiful

and clean representation of Nature, images of the Earth from space were seen to be less useful than Image One, especially to Conservationist eyes but across the sample, too.

For this image, interviewees commented upon the finality of people's possible existence as a species on a planet which does not need us (Interview, 14th July 2022), but is nonetheless all we have as a 'precious oasis of life' (Interview, 7th October 2022b). These remarks thereby pointed towards a reflective reading of the Blue Marble which positioned humans as vulnerable yet also responsible for the planet's – and by extension people's own – destruction (also Interview, 7th October 2022a). This reflective lamentation about the position and dependency of humans upon an environment they are destroying is an interesting one which could be afforded exactly through the distance Image Two provides viewers vis-à-vis Nature, and suggests an understanding that something in this relationship is in need of change. This could imaginably result in reflexivity around viewers' own actions which could harm, protect or restore Nature, possibly leading to attitudinal and behavioural alterations.

Such a continuation of the thoughts and feelings from the moment of viewing the image to action was only indirectly suggested by the interviewees, and did not appear to be well reflected in the SD and image use data. For some, like these interviewees, Image Two's possibilities for exerting influence still existed and could indicate the how Demonstrative Outsiders, which use Blue Marble imagery centrally in their campaigns and group identities, also see this image as a more powerful and thought-provoking visual than perceived by survey respondents. Investigation into the perspectives of younger activists, as well as non-activists, around this form of image would therefore be informative under a comparative approach alongside the views and feelings expressed here by survey respondents.

Figure 9.3: Image Two Semantic Differential

Image Two: Nature Representation

Image Two: Image Feeling
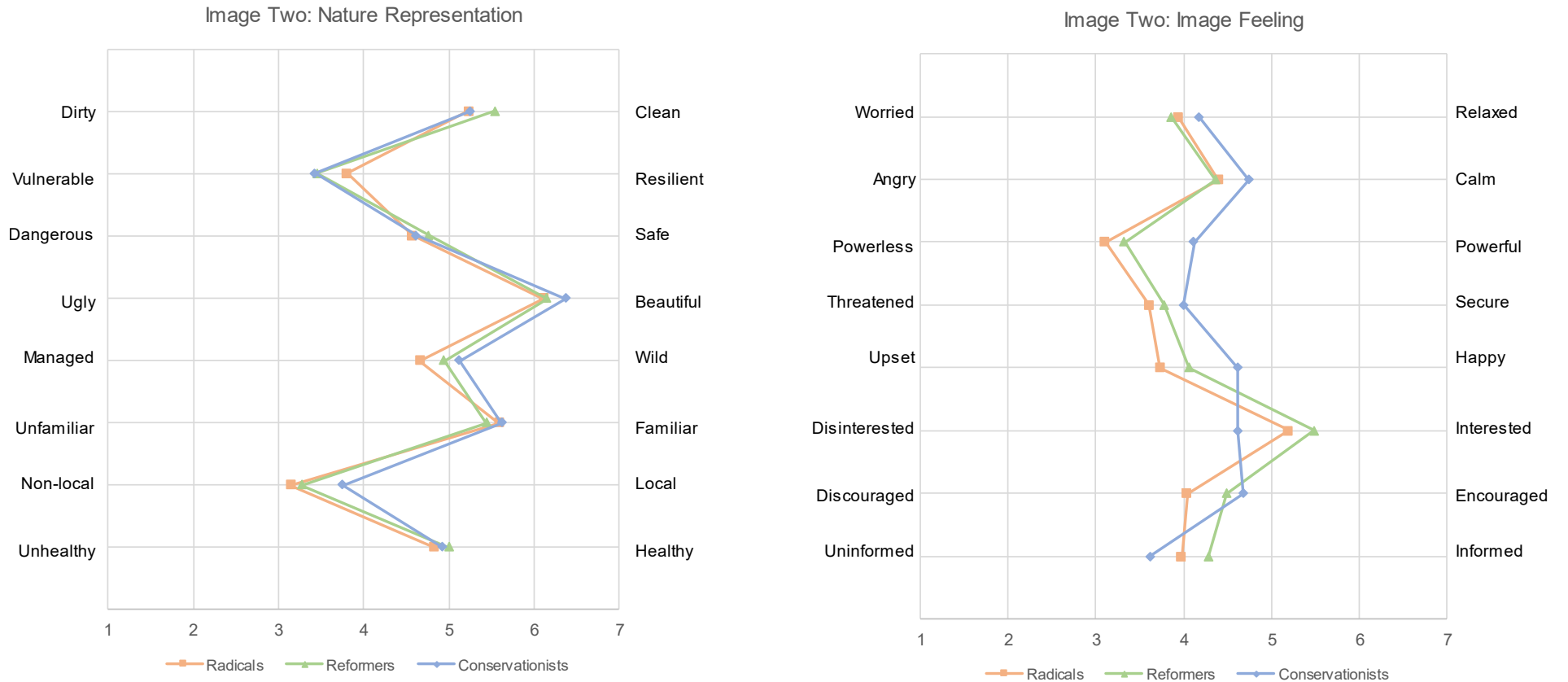
9.2.3 Image Three: The Polar Bear

The second icon in the survey instrument was the polar bear. With a long history of use – and arguable over-usage – the polar bear icon could represent a potentially weakened, less interesting, engaging or eye-catching image. Indeed, some have additionally noted its derision by climate sceptics which could reduce its salience as a communicative tool around the climate and environment more generally (Chapman et al. 2016; Pearce et al. 2020).

Reflecting the icon's common composition, the image embedded within the survey contained a lone polar bear on a single piece of ice, with little else visible of an 'arctic' environment through what the image might present as the result of ice melt related to climate change (global warming) and the underlying human causes thereof. In this context, the polar bear could be seen to be vulnerable through being stranded on the small patch of ice, despite the size and strength of this animal (for instance, Manzo, 2010b). This is what the polar bear icon has widely been used to indicate, as well as to undermine by sceptics.

Image Three:

Source: "The Last Polar Bear", Gerard Van der Leun (CC BY-NC-ND 2.0).

Turning attention to the SD results, however, an enduring evocativeness and power to this much-used climate icon was suggested. While the average answer values from across the three case group types remained largely in-keeping with each other, as with Image One and Two, the extent of variation between the scales and beyond the central value was significant.

To begin with regards to Nature representation, the polar bear scene relayed was deemed to be slightly clean, slightly unhealthy and marginally more familiar than otherwise. With the latter, this mixed response along the unfamiliar-familiar scale may reflect, on one hand, the lack of direct experience (unfamiliarity) with polar bears and arctic environments, while speaking on the other to their previous exposure to this image subject and theme (familiarity). Here is, therefore, an arguably good example of an instance where the centre of an SD scale does not necessarily indicate a neutral position as some might suggest, but instead an ambivalence drawing on a combination of both ends of the scale (Gardner, 1987).

While still representing a beautiful, non-local Nature as with the first two images, the polar bear icon was seen also to show, perhaps through the ice and strong animal, a more dangerous Nature. Indeed, an interviewee characterised this image as 'threat-heavy' (Interview, 28th April 2022). More than this, however, respondents across group types agreed on average that Image Three presented a prominently vulnerable Nature. It is suggested here that this related directly to its synecdoche characteristic. While the environment was judged to be clean and, to a greater extent, beautiful and wild, historic image use has created and embedded a vulnerability-laden framing around polar bears on small patches of thin ice. There is therefore a guided reading of Image Three which points audiences towards the idea of vulnerability through the underlying theme of global warming.

This effect also appears to have continued insofar as image feeling was concerned. Here, Image Three was found to offer a synecdochic representation of Nature which evoked strong feelings of worry, anger, powerlessness, upset and a sense of being threatened. Put differently, the image presented its viewers with a highly negative framing of the photographic subject and the challenges it has come to denote. While remaining interesting to respondents, this negatively-oriented framing inherent with the polar bear icon was simultaneously reported to be slightly more discouraging, and not particularly informative (especially for Conservationists in the latter instance), perhaps based on this already being a well-known frame.

Image Three therefore showed how the depiction of a beautiful Nature can nonetheless coincide with strongly evoked feelings such as upset (reflected also in Interview, 28th April 2022), and that perceived icon overuse does not necessarily reduce the salience of an image for audience members. This is an important and interesting point uncovered through the SD. Tying into literature discussions surrounding the polar bear's position within climate communication, it has been argued that counter-framing and a repurposing or parody of this icon by climate sceptics could result in its message being undermined (Chapman et al. 2016; Pearce et al. 2020; also Aklin and Urpelainen, 2013).

It has similarly been proposed that its overuse and transformation into something cliché has generally reduced the image's efficacy and emotive impact (Chapman et al. 2016). In measuring these aspects of meaning, the EPA structure-related expectations were once again broadly met (Chapter Six). Two additional factors were returned alongside these, one concerning familiarity and the other relatable to localness, as before. Like with Image Two, the reliability levels of the EPA factors were reported to be good or acceptable (Appendix Five).

Image Three also highlighted the multi-faced and sometimes contradictory readings which images can produce through the relations they place their subjects in within a frame. This image, for instance, was seen across group types to construct a greatly beautiful yet simultaneously vulnerable Nature which peaked viewers' interest but created in them feelings of anger, worry and sadness. As noted at the outset, this is one of the features which makes imagery complex and thus of interest and importance to understand further. This includes studies regarding the environment and/or social movements, and is of increased importance given the current extent to which images are fundamentally embedded within many communication and media practices in general.

However, findings indicated that the dominant framing existing around this image persists, and it continues to serve as a synecdoche for global warming. Indeed, besides relaying a sense of vulnerability in its Nature representation, it maintained significant affective power. This was true for members belonging to each of the three group types surveyed. How far this image may achieve more beyond evoking strong feelings can nonetheless remain subject to question based on the data. The strength of its impact and enduring meaning upon non-environmental movement members in light of sceptic counter-framing is another question which remains open (Chapman et al. 2016; Duan et al. 2017).

More than this, there was a slightly greater degree of discouragement arguably linked to Image Three's negative framing which may not be conducive to inspiring action. If it did lead to action by the viewer, it may be that the negative vulnerability-laden frames cause through the strength of their emotive affect a moral shock similar to the animal imagery examined by Jasper and Poulsen (1995) which facilitated protest participation.

Put differently, the original non-sceptic meaning and shock-like feelings persisted for an audience comprised of Radicals, Reformers and Conservationists. This framing's strength has therefore remained strong and salient over time alongside increased audience exposure to the polar bear icon. Image Three may therefore still provide an effective, poignant means through which to communicate global warming and the dangers it poses, and may lead to recruitment or other resource-securing opportunities. The latter possibilities, however, may be weakened through the same negative framing which in this case has caused them to appear. This is since, by its own nature, it is not particularly encouraging for viewers and might result in doubts about the efficacy of individual contributions which could be seen as just a 'drop in the ocean' (Manzo, 2010b:203; Nicholson-Cole, 2005; O'Neill et al. 2015; Rebich-Hespanha and Rice, 2016). That said, Image Three would seem to hold greater potential as a communicative tool than Image One and Two.

To an extent, some of the assumptions around the group typology could be seen here, too. Reformers' average responses, for instance, were commonly situated in-between those of Radicals and Conservationists. This was seen with image feeling where Conservationists were the least moved, and Radicals the most. These results could thus be understood through the image's centrally framed concern of global warming, around which climate activists belonging to groups like XR campaign to communicate the associated urgency and danger. Indeed, they were assumed to 'prefer' or react with greater strength to images highlighting their core concern, including through a vulnerability and risk framing latent within polar bear images.

Conservationists, by contrast, were expected to prefer beautiful, picturesque Nature without the presence of threat, vulnerability and danger (and so images in line with landscape constructions of Nature). These expectations were somewhat met through Image Three, although average responses remained similar across group types and, even while comparably less pronounced, Conservationist answers still leant in the same direction as the others. Similarities were less prominent between Conservationists and the others insofar as their evaluation of possible image usefulness was

concerned. Within this, a significantly higher proportion of Conservationists did not believe that Image Three could be used to effectively inform debate (25 percent) compared to Radicals and Reformers (52 and 56 percent, respectively). The same could be said of its potential to promote environmental group membership (44 percent to 80 and 70 percent), influence behaviours (31 to 55 and 58 percent), influence attitudes (56 to 78 and 75 percent) and, finally, raise awareness (75 percent of Conservationists to 90 and 88 percent of Radicals and Reformers, respectively). In the latter two cases, however, more Conservationists agreed that these could be uses for the image than those who did not.

These results also showed a closer affinity between Radicals and Reformers. This could suggest two arguments regarding the group typology employed by this research. First, that some of the expectations around how Conservationists would respond less well to images involving a vulnerability and/or threat frame, in contrast to Radicals who would express greater preference towards them or Reformers falling in between, could be seen in this case. The expectations, to reiterate, emerged directly from the construction of the typology along radicalism and institutionalisation lines; with greater radicality suggested to be associated more with themes of urgency and risk.

Greater institutionalisation, meanwhile, was hypothesised to produce more positive evaluations of images which contrastingly convey beauty, peace and cleanliness akin to landscape constructions of Nature. Second, in supporting these expectations, the results perhaps contributed to ideas that Conservationists, without key claims, challenges, targets and the like, including in their visual communications examined here, are dissimilar enough from Radicals and Reformers to categorise them as existing outside of the environmental and climate movement (Saunders, 2007a). That said, all Conservationists (100 percent) reported that the image would be effective for catching people's eye, and a lower but still noteworthy proportion of Radicals thought the same (86 percent). Moreover, one usage category where Reformers markedly differed from the other group types was promoting participation in protest which only 39 percent of these respondents felt possible (contrasted against 56 percent of Conservationists and 65 percent of Radicals).

Examining the aggregate results revealed that the polar bear climate icon, with its continued evocativeness, can be effective for all of the uses included within the survey instrument. Moreover, they further suggested that this effectiveness could be realised across diverse movement groups

and those who are – or could become – active participants in them. As discussed, the probability of this efficacy might be somewhat reduced should this image be used in communications targeting Conservationists. This is an interesting result and could be understood in parallel with discussions regarding Image One in which that image could have been less well-received by Conservationists due to over-exposure to that form of imagery.

Moreover, and somewhat also reflecting findings for Image One, it may indicate a stronger influence of framing over pre-existing issue concerns upon the image encounter. For climate change (global warming) of which Image Three is a synecdoche, most Radicals and Reformers expressed that they were extremely worried about this particular challenge (80 and 79 percent, respectively; Figure 9.4). Meanwhile, only 38 percent of Conservationists expressed this degree of concern. This was again indicated by the direction of mean responses to the relevant survey question (Q.1) reported through ANOVA. Here, the means for Radicals and Reformers leant more towards the 'extremely worried' category, while Conservationists leant towards the next lowest category ('very worried') with a notable mean difference of -.54 and -.53 to the other groups, respectively.

Figure 9.4: Concern for Climate Change (Global Warming), *n*=136.
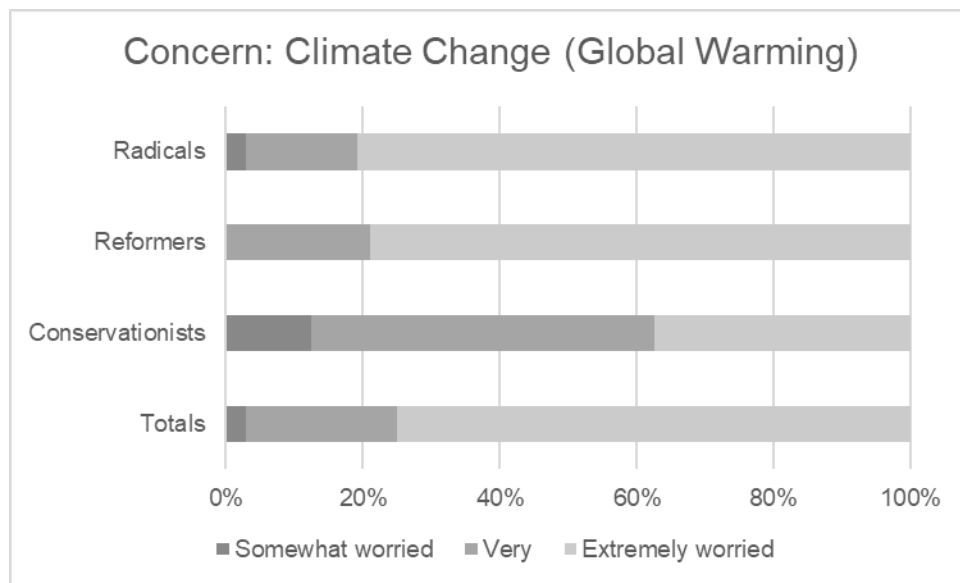
The mean and proportion (percentage) differences between Conservationists and the others was therefore present and suggested that, while they were still concerned with global warming, this was to a comparatively lesser extent. This might correspond partially to their response that Image Three may be less useful, although this was somewhat similar to Image One which concerned an issue of greater concern for them (81 percent being extremely worried in that case). Moreover, and again in comparison to Image One, the affective impact of the polar bear upon Conservationists was much greater even though their concern for the denoted themes was significantly lower.

The reverse could have been expected but, since this alternative outcome was not presented by the data, the influence of the frame on image reception (but not necessarily perceived usefulness) seemed to operate independently and with greater strength than original concerns about the challenges being visually conveyed. Once more, then, it appeared to be image framing rather than viewer concern which led the way regarding how the image was received by movement members.

Elaborating on this inter-image comparison, further points can be raised about how the images resonated differently in terms of image feeling for Conservationists. This finding occurred within the data despite the way in which Image One and Three both represented Nature through centring attention upon a lone, adult animal within its habitat. In short, there was a different affective impact from two images which shared the same general theme. It is suggested here that this does not fully support the emphasis others have placed upon the impact of a single animal within an image in creating stronger emotive reactions vis-à-vis groups of animals (Manzo, 2010b). Instead, it was the impact of the frame surrounding these animals which provided the strongest influence over audience affects based on this data.

In this way, it was arguably framing and not animal numbers, species or habitats which was the more significant influence upon image reception. If these outcomes stemmed from the animal presence in and of itself, then similar responses to questions concerning Image One and Three could have been expected due to their subject similarities. Moreover, it was a negative rather than positive frame which created the larger affective impact for Conservationists alongside members of the other group types. In terms of usefulness, however, similar results for Conservationists between Image One and Three existed, so this image was not overly effective yet still held some potential when used within Conservationist-targeting communication efforts.

Combined figures from across the group types nevertheless demonstrated that over half of all respondents perceived each of the usage categories as feasible, and their judgement was that Image Three could be most useful for catching people's eye (89 percent), raising awareness (88 percent), influencing attitudes (74 percent) and promoting environmental group membership (72 percent). These findings thereby supported previous suggestions that while a beautiful, clean Nature was still relayed through Image Three, as was the case for Image One and Two, a framing which is immediately understandable through its status as an iconic synecdoche could hold greater usage and affect across a wider audience. The extent to which it was negative framing rather than no framing (Image Two) or positive frame construction (Image One) that helped increase this image's effectiveness and potency – as opposed to an already learnt reading in line with its iconic status – remains to be seen. This will consequently be returned to later.

Before this and lastly regarding Image Three, however, by virtue of its strong synecdoche framing it could be seen to present a subversion of a reading of this Nature as only clean, beautiful and wild. It does so through presenting a form of Nature which can be understood according to the Eurocentric landscape construction, while pointing simultaneously to direct challenges to this Nature in the form of ice melt, animal wellbeing, habitat loss and, as the overarching issue, climate change (global warming). This icon may therefore challenge a detached, objectifying landscape gaze – at least one based upon sole appreciation of aesthetic appeal – through this subversion. However, while Image Three could be seen to offer this challenge and perhaps consequently contribute to a decentring of humans as the main or only focus, it achieves this only by removing the human part of human-Nature relationships completely.

While the synecdochic denotation is of global warming and emblematic risks to polar bears and their environment, there is an arguable absence of a clear linkage from this to the problematic relations humans currently have with Nature. This includes the human-led causes of global warming which can be linked in turn to how Nature is seen and treated; extending to the agency-removing Western cultural construction of landscape. Put differently, although landscape as a visual appraisal and valuing of beauty could be subverted through the enduring frame expounded by the polar bear icon, landscape's norms and renderings of Nature vis-à-vis human subjects may remain unchallenged. This could be through decentring humans in a way that does not recognise

the agency of Nature as Latour might look for, but instead removes the human agency which lies behind the visually-denoted issues facing Nature and, reciprocally, human societies.

It was along these lines that an interviewee observed this image as 'not a threat to the status quo' given the absence of a direct visualisation of destruction and its ultimately human cause (Interview, 28th April 2022). It was in this sense that the same interviewee expressed curiosity regarding how this image became an iconic representation of environmental and climate destruction without the explicit incorporation of such destruction. A comparison can be made here with Image Five's handling of wildfires, and this will be developed later. At this stage, however, Image Four must be considered.

Figure 9.5: Image Three Semantic Differential
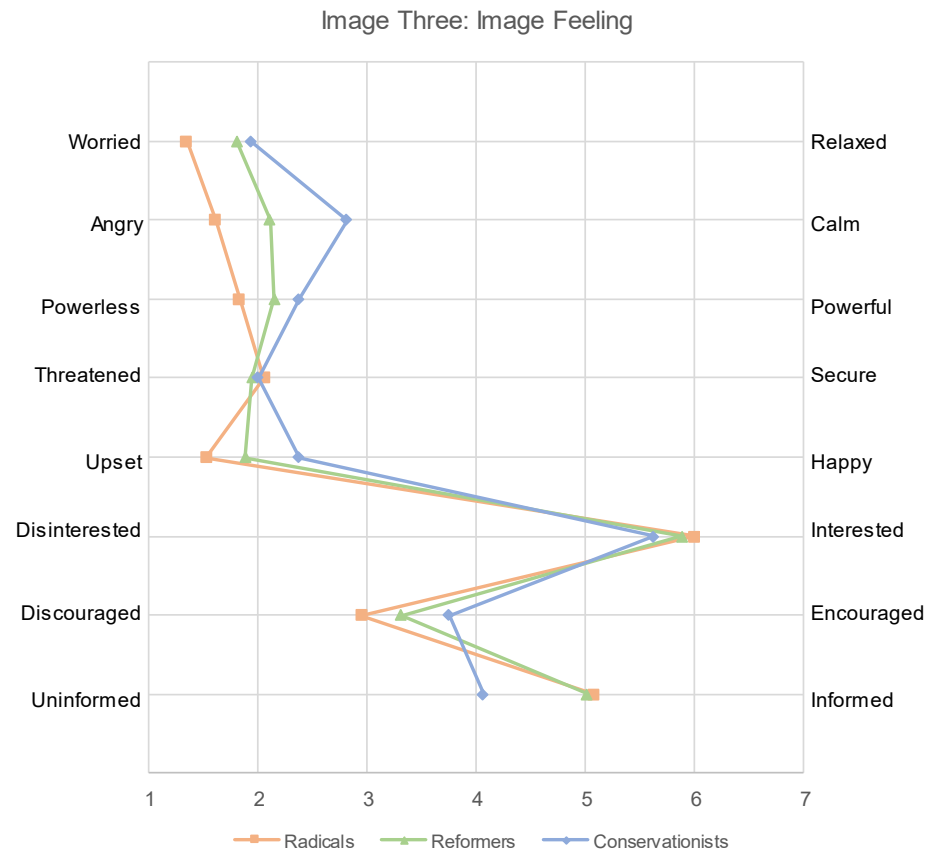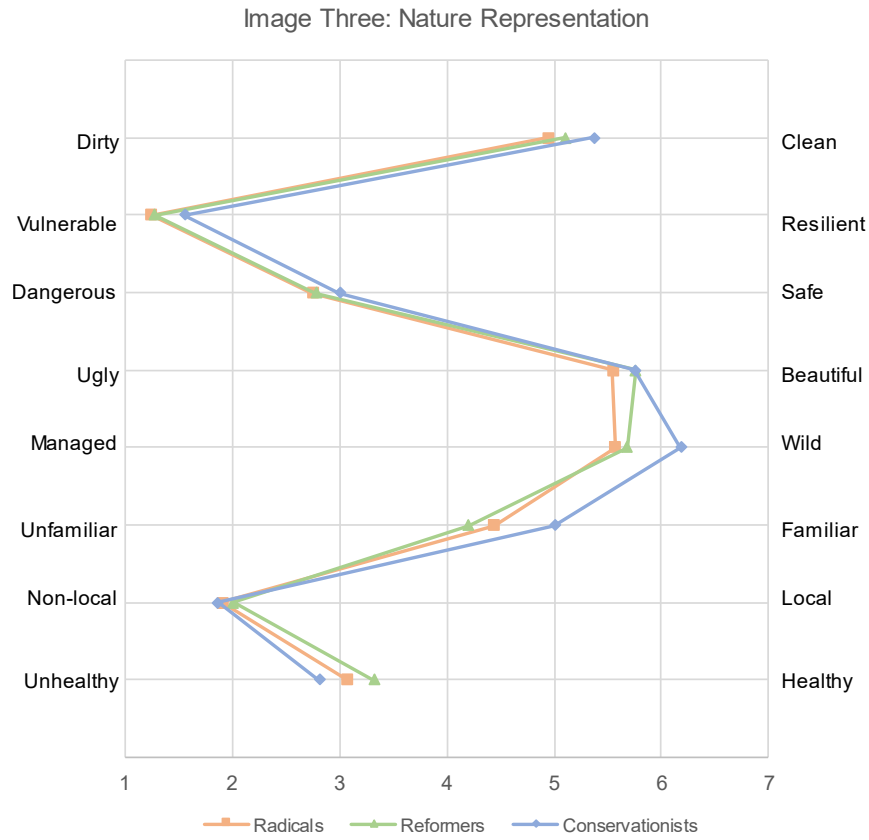
9.2.4 Image Four: Demonstration by Extinction Rebellion

Focusing upon the typology's division of movement groups into lower and higher degrees of radicalism, the protest scene presented through Image Four was expected to appeal most to Radicals and partially to Reformers, but be more discouraging for Conservationists. Through text naturally captured protest banner in the image, this photo was also assumed to hold greater interest to Radicals since they too belonged to the protest group identifiable; namely XR (albeit to different country branches). Figure 9.6 relays the SD results for this protest photograph.

Image Four:

Source: "Demonstration by Extinction Rebellion in Potsdamer Platz, Berlin, 07.10.2020", Stefan Müller (CC BY 2.0).

While Image Four centred on a protest march down a tarmacked road with a grey office-like building in the near left-hand background, Nature was still present. It could be inferred through the banner claim and demand concerning environmental and climate threats. The road itself was lined with lush green trees and hedges, with grass verges on either side. Moreover, this continued into the far right-hand background where additional trees stood over what appeared to be a stream or lake.

It is understandable, then, that the way in which this image represented Nature largely coalesced around the central scale value. Image Four's Nature was therefore the most ambiguous among the sampled movement imagery. For Radicals and Reformers the scene was slightly familiar, while Conservationists differed to a greater extent compared to the others. Consequently, they indicated

a reading of Nature as being more local, unhealthy and vulnerable. These features may specifically relate to the level of urbanisation present within the photograph.

Greater variety in responses could be seen regarding the feelings produced when presented with this urbanised protest image. To elaborate firstly in terms of similarities, all group types found agreement that the image evoked a bit more worry and anger, perhaps at the underlying need to protest, as well as slightly more power. The latter could relate to a reading of the protest event as a clear and direct representation of the possibility ordinary people have to make their voices and demands heard. One interviewee also raised this idea, discussing how they feel protest imagery is particularly striking; consequently making extensive use out of this form of imagery for an XR newsletter they contribute to (Interview, 7th October 2022b).

More specifically, they spoke of how such images 'show people and their power' and that for them there 'is something about protest that invokes dance and emotion and the true self'. Under this perspective, these images can capture the worry and sense of injustice protesters demonstrate through their action, whilst potentially being juxtaposed against others in the image who may deride or abuse protesters (Interview, 7th October 2022a); a clear and possibly moving contrast against deeply-held concerns and demonstrative power of the protesters. Certainly, Krause and Bucy (2018:336) suggested that protest imagery can reflect an 'idealized democracy' in which such power is key (cf. Chapman et al., 2016, for whom protest bears negative associations).

Along the remaining image feeling scales, Radicals and Reformers more or less held a shared reaction to Image Four. They felt the most interested and encouraged, whilst also being less threatened or upset in contrast to Conservationists. Indeed, Conservationists presented quite a different standpoint to the others in response to this image. They notably felt a stronger sense of being threatened which, perhaps coupled with the upset feeling also reported, potentially indicated a general disquiet or discomfort when confronted with protest. This can be contrasted against the Radicals who reported feeling the most encouraged by this image.

Figure 9.6: Image Four Semantic Differential
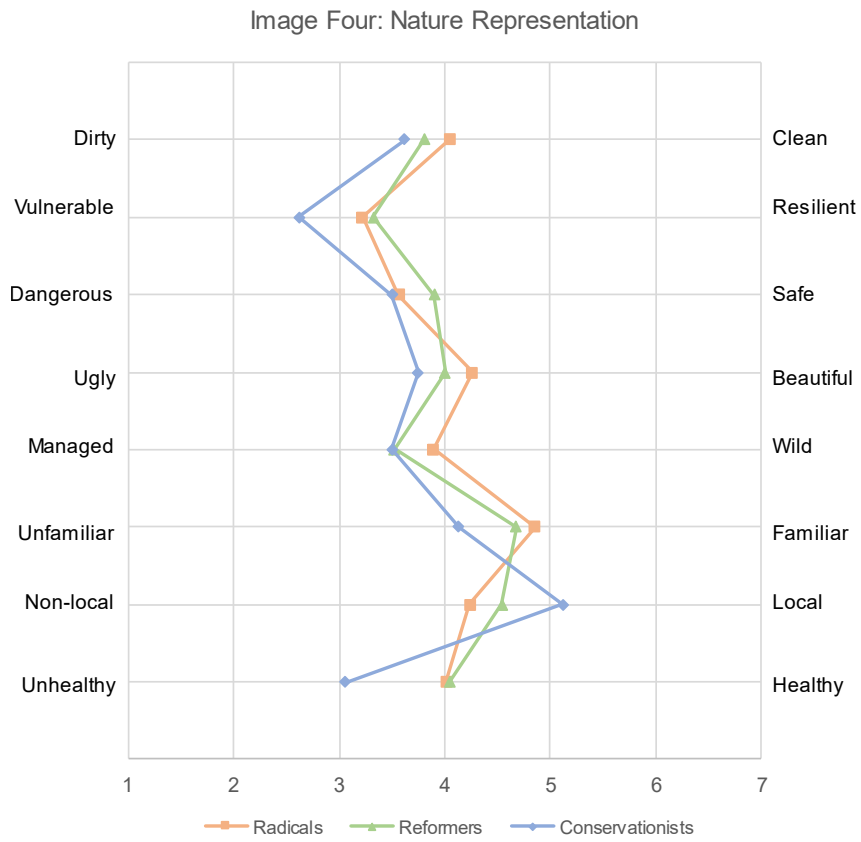
These points are understandable in relation to the group typology and the differing degrees of radicality characterising each type. From this it was assumed that Radicals would express a greater preference or indicate a larger impact from images of protest given their higher radicality, while Conservationists would orient themselves in the opposite direction. This was what appeared to have been the case when gauging how Image Four was received across group types. Reformers fell in the middle of these other two groups, as was also hypothesised.

The data for Image Four can therefore be argued to offer support to the group typology. It lends further support to the social movement studies idea that Conservationists could occupy a space outside of the environmental and climate movement. Based on the SD data here, for example, respondents expressed what could be a fairly clear feeling of discomfort (threatened) and perhaps then of dislike for protest scenes. Protest, of course, is central to Radical activities and forms a significant element to Reformer undertakings, alongside more formally organised and institutionalised characteristics for the latter.

Data on historic protest participation collected through the survey (Q.11; Figure 9.7) further developed these insights. This data helped to underline a core point just made, and namely that Conservationists are less predisposed to protest. This, as expected through the group typology, was clearest when compared to Radicals' protest participation rates, with Reformers again in-between. To elaborate briefly, 81 percent of Conservationists reported participating in either no, or no more than five, protests in their lifetime. 52 percent of Reformers, meanwhile, reported participating in 1 to 10 events, with an additional 40 percent falling into the 11 to 20 and 21 or more categories, combined.

Lastly, and with the highest frequency of sustained protest involvement, 45 percent of Radicals reported involvement in between 6 to 20 unique protest events, and a notable 30 percent in over 20 protest actions. Furthermore, similar was observed through the use of ANOVA. Although a Radical-Reformer difference was present (-.35), the mean differences between these two groups and Conservationists was notably greater (with Radicals, -1.61, and Reformers -1.25). From this data, and as above, Conservationists' belonging to a broader movement were again brought into question.

Figure 9.7: Protest Participation Frequencies by Typology, *n*=137.
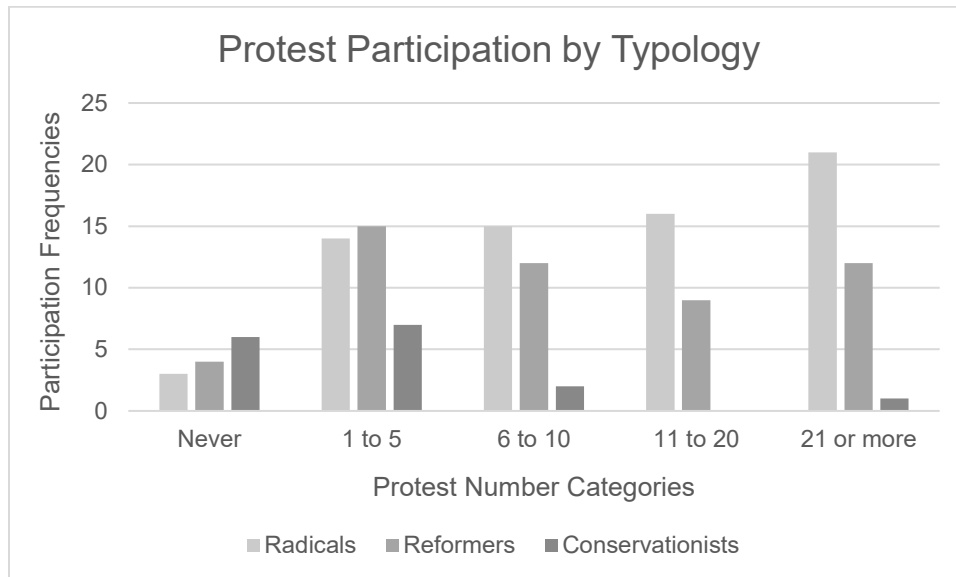
An additional linkage to political leaning can be drawn here (survey Q.23). The 'typical' activist, for instance, has often been found to be left-leaning (Saunders et al. 2012), while those with greater dislike of protest imagery may sit farther to the right (Interview, 9th June 2022). On this basis and relating to the participation data, it might be suggested that Conservationists' lower protest experience could reflect their position more on the political 'right', and Radicals towards the 'left'. This, however, was not quite the case when further exploring the survey data. On a scale extending from 1 (left) to 10 (right), the overall average political orientation mean stood at 2.54; a position firmly on the scale's left-hand side. For the groups specifically, the Radicals' mean was 2.26, Conservationists' 2.80 and the Reformers' stood at 2.84. In other words, these ANOVA results suggested that political leaning was not a good predictor of protest participation and this was demonstrated most by Conservationists who shared a left-wing orientation with the other groups, but without sharing a larger involvement in protest.

Roughly, therefore, Conservationists would fall under the category of 'novices' as those without previous protest participation, or 'returners' with a low-level involvement (following the schema devised by Saunders et al. 2012). Taken together, 'returners' and 'repeaters' with a mid-range participation frequency comprised the main body of activists for Reformers and Radicals. The final

category of individuals with experience of 21 or more actions can be related to Saunders et al.'s (2012) last label, and namely 'stalwarts' who were more present within the Radical sample.

In comparison to a fairly recent study of Radicals, however, the sample here showed a slightly higher proportion of Radical-linked stalwarts than those found by Saunders et al. (2020) who sought to understand who XR activists are. They reported around a quarter (26 percent) of research participants to be stalwarts when combining the samples gained from across three different protest events. Based on the data of the research at hand, the comparable stalwart presence stood at 30 percent. The share of those participating in five or less events in their lifetime within Saunders et al.'s (2020) study, meanwhile, stood at over one-third (35 percent) of their full sample. This was higher than the figure for this project (25 percent).

While the differences are not overly great between these two studies, the point should still be made that participation in a Radical-organised protest event does not necessarily mean membership of this group type. The latter could be assumed to be comprised to a greater extent by those with more protest participation than novices or returners; as shown by this research. These comparative results were perhaps influenced by the respective sampling strategies employed too; comparing members (this study) to single event participants (Saunders et al. 2020).

This indicated that, while Radicals' constituent base is more active in terms of protest participation, their adherents are not necessarily seasoned activists. Since they nevertheless partake in occasional or one-time actions alongside Radical members (Saunders et al. 2020), there is room to suggest that visual communications which are seen to work for Radical members – like those surveyed for the present project – may also be effective for a wider audience and might help secure resources such as time and money.

Saunders et al. (2012) additionally suggested that it is the returners and repeaters – those in the middle of the participation scale – who sustain protest activities. These would therefore be important to target in communication efforts; including, of course, with visual materials. Based on this project's data, it would appear that Radical and Reformer membership has achieved this well according to frequency and ANOVA results. The same cannot be said, however, of Conservationists which may target a different pool of (potential) constituents. In the latter sense, this perhaps once again furthers arguments that Conservationists are distinct enough from Radicals

and Reformers in their membership bases and activities to warrant consideration as separate to the environmental and climate movement proper.

Questions can be raised, however, around Saunders et al.'s (2012) claim that returners and repeaters are more likely to be satisfied with democracy than stalwarts. Recalling Chapter Eight, Radicals and Reformers leant heavily towards being very dissatisfied in democracy. As such, members of these groups – largely comprised of returners and repeaters, alongside some stalwarts – indicated less satisfaction regardless of their protest participation frequency. Alternatively, a greater difference was found between these respondents and the Conservationists who exhibited both minimal or non-existent protest participation coupled with a higher degree of satisfaction with democracy.

Based on the above, therefore, protest-centred imagery would seemingly appeal to and resonate most with Radicals, as well as Reformers. Image Four may thus serve as an effective communicative tool when targeting constituents and adherents of these group types. Moreover, visual materials like Image Four could also encourage these individuals around how they think about environmental and climate issues, including their own position in respect to them. This was suggested by the SD data presented above. Relevantly, it could achieve this encouragement and interest through the absence of strong feeling evocation insofar as worry, happiness and similar are concerned. This can be contrasted against Image Three, for instance, which provided an established negative frame yet was more discouraging to members of all group types according to the image feeling semantic differential. The average levels of encouragement were also higher for Radicals and Reformers when compared to Image One which relayed, by contrast to Image Three, a positive frame through edited-in text.

In terms of measurement through the Nature representation and image feeling scales, a factor analysis was again performed. Once more, the basic EPA structure formed the first three factors with the positively-loaded items roughly reflecting expectations (Chapter Six). Each of these three factors had excellent or good internal consistency according to reliability tests (Appendix Five). A fourth factor was also generated. Comprising the unfamiliar-familiar and non-local-local scales, this additional factor was labelled as measuring 'knowing'; put differently, a factor measuring a proximity and direct relation to place, physically and/or through memory of past experience. However, besides containing less than three items, the reliability of this measure was lower

than .50 and deemed unacceptable (Appendix Five). It could not be expected, therefore, to provide an accurate insight into the knowing of the Nature presented by Image Four, unlike with the three EPA factors returned.

Turning lastly to respondents' image use perspectives, the aggregate picture – understandably based on the inter-group type differences recorded through the SD – was mixed. To provide examples, the majority of respondents (87 percent) believed that Image Four could promote participation in protest. While this could be a literal reading of the image given that it is already of protest, and so respondents answered as such, it may also link directly back to the level of encouragement felt as Reformer and Radical members viewed the image. Although Radicals perceived this usage to the greatest comparable extent (91 percent), selection by Reformers was still high (83 percent) and matched, perhaps with a more literal reading, by Conservationists (81 percent).

The lowest ranked uses enjoying less than half agreement from the whole sample were influencing attitudes (48 percent) and informing debate (42 percent). In the former case, not much difference was found between the groups with the only exception being the slightly higher selection by Radicals with marginally over half of this type's sample (52 percent) perceiving this as a possible use. Meanwhile, with the latter, a similar picture remained for Radicals (54 percent). Yet, while Conservationists rated this use to the same extent as influencing attitudes (44 percent), Reformers were surprisingly more sceptical about the applicability of this use category with only one-quarter (25 percent) seeing this potential to inform debate.

This was the lowest ranked usage for Reformers when excluding the none of the above category, with their highest ranked use being promoting environmental group membership (75 percent) which, in this case, was deemed possible to a greater extent than Conservationists (44 percent) and Radicals (64 percent). The lowest reported by Conservationists was catching people's eye at 31 percent, with this perhaps again underlining a general discomfort with the optics of seeing protest along the lines discussed above. For Radicals, lastly, every use listed in the survey was thought feasible for this image by at least half of this group's sample. This also highlighted comments made previously that Radicals were expected to prefer or place greater value upon visual materials like Image Four, resting on the high degree of radicality the typology attributed to them.

To summarise this discussion of Image Four, it could be impactful and influential for Radicals and, to a lesser extent, Reformers, if used to target constituents or adherents of these groups. Related to a lower radicality and higher institutionalisation, however, the use of protest imagery to communicate environmental and climate themes would suggestibly not be effective where Conservationists are targeted. Despite this, when focused on the other two groups materials like Image Four could provide the encouragement needed to inspire group membership and protest participation, with these uses well-envisioned by Radicals (64 and 91 percent, respectively) and Reformers (75 and 83 percent) alike.

While the image may not necessarily offer strong framing potentials about Nature directly, Image Four could work well as a tool to increase and maintain recruitment to more Radical-oriented movement groups. It could thus help increase their access to the resources necessary to undertake actions similar to that captured in Image Four. These resources could be defined widely, but people (volunteers, protest participants) and funding can serve as core examples (for instance, Edwards and McCarthy, 2007; Saunders, 2013). It is this targeted way in which Image Four could find the greatest purpose with reference to RM conceptualisations.

9.2.5 Image Five: Wildfire

Penultimately is the wildfire image. Earlier, this type of image was suggested to be a newer icon used for the visual communication of environmental and climate issues. Whether iconic or not, it was nonetheless discussed as reflecting a period of enhanced issue-attention for wildfires internationally, including in the West, and that this could account for its greater presence in movement communications online. The expectation was that wildfires would be perceived as representing a dirty Nature under threat, and that the issue-attention placed on these fires in Western contexts may render them more local and thus personally concerning. This might be relayed well by Image Five which also depicted a silhouetted human figure in the foreground, thus presenting (and perhaps centring) a human experience to the disaster.

Image Five:

Source: "Wildfire", USFWS, Southeast (CC PDM 1.0).

Radicals were therefore expected to express greater interest towards this image since it captured themes of threat and risk to both Nature and people, alongside a possible sense of urgency. Conservationists were suggested to hold less interest based on a preference for pristine, healthy and non-threatening Nature representations in line with a Eurocentric landscape perspective. To explore these expectations, the average perspectives around Nature's representation and how this made respondents feel was once again visualised for greater ease of comparison (Figure 9.8).

On immediate inspection of the SD results for Image Five, the trend appeared to be strikingly similar to that for the polar bear climate icon (Image Three); particularly regarding image feeling. Here, therefore, respondents exhibited the same negative responses as before. In this, Image Five made members of all group types feel worried, angry, powerless, threatened and upset. This powerlessness, as an example, could be based on how the event was one already occurring and thus already unpreventable, leading to demotivation (Doyle, 2007). Additionally, the strength of the threat depicted could be overpowering and consequently disengaging for some viewers (Nicholson-Cole, 2005; O'Neill et al. 2015; Rebich-Hespanha and Rice, 2016).

Figure 9.8: Image Five Semantic Differential
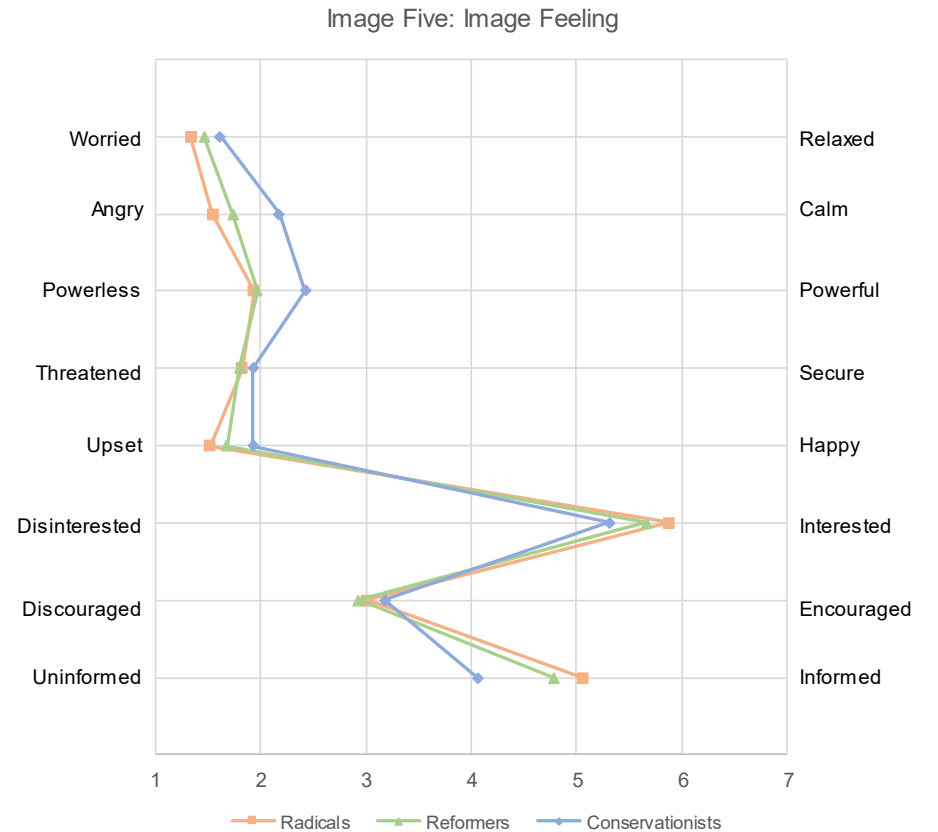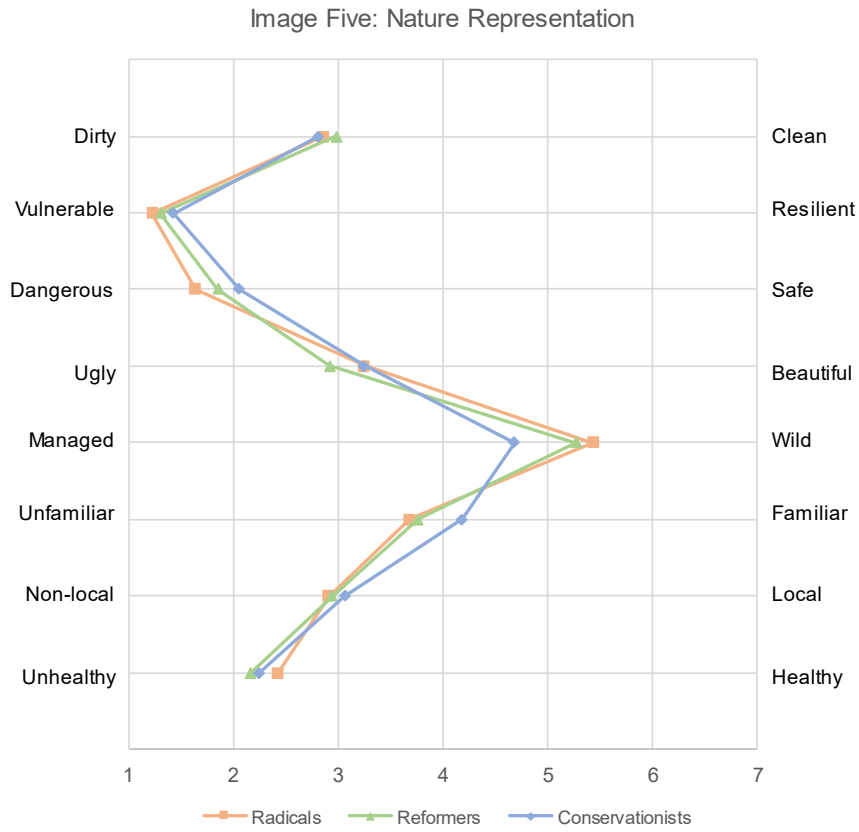
There was also, as one interviewee proposed, the question of the firefighter in the foreground whom, rather than actively attempting to control or extinguish the flames, appears to the audience as a passive figure watching the disaster unfold (Interview, 28th April 2022). Other interviewees shared this interpretation, with one stating that the firefighter had simply 'given up' (Interview, 14th July 2022; also Interview, 7th October 2022b). Contrarily, another member of XR indicated that while they felt that the image could be too overwhelming as an 'extreme', possibly unfamiliar and seemingly unreal scene – a 'hellscape' – the firefighter was seen to be 'stoic' in the midst of this disaster. With this deeply negative reading, it was believed that Image Five, while evoking personal feelings of sadness, 'could shock people into confronting hard truths' (Interview, 7th October 2022a). This could open the possibility of creating protest participation in a manner similar to Jasper and Poulsen (1995).

Indeed, one interviewee added that they felt inspired to act now – in line with one of XR's central demands – in order that such disasters do not happen to themselves and do not get to a point where they are no longer preventable (Interview, 14th July 2022); consequently speaking to Milkoreit's (2017) ideas around dystopic yet inspirational future imaginaries. This individual thereby spoke of feeling hope from the photographed destruction and threat, noting how groups like XR can carefully guide visual narratives and how it is 'so important that behind every message there is an underlying line of hope…to inspire our rebels; hope for the hopeless' (Interview, 14th July 2022).

The firefighter's perceived passivity, possibly reflecting an inability to fully tackle the event, could still arguably feed into feelings of inability (powerlessness) for the audience. These feelings in reaction to the image may be furthered through the absence of details, maybe contained in a textual element, which could have provided information about what viewers can do to mitigate against these disaster events. Additional framing work could have thereby offered the potential to increase encouragement and lower the sense of powerlessness expressed (amongst others, Walsh, 2015). Moreover, a silhouetted firefighter may not qualify as an 'authentic' person with relatable experiences either, with this having been discussed as important for audience engagement and concern (Chapman et al. 2016).

For further contrast against Image Three, the wildfire lacks the polar bear's synecdoche framing. Image Three could therefore be seen to have produced a negative affective response through this synecdoche characteristic, rather than relaying a negativity more directly and explicitly through

the composition of its visual subject. The emotive response to Image Five was, therefore, produced without the mediation of pre-established frames involved in meaning creation, unlike Image Three as a longstanding climate icon.

For some, and similarly to the older polar bear image, the wildfire could also be considered as 'quite a good shorthand for global warming' (Interview, 28th April 2022). In turn, Image Five perhaps presents the possibility to become another climate synecdoche and icon in line with suggestions first presented in Chapter Seven. That said, the link to climate change was also suggested not to be overt and thus some viewers may not make this linkage in their minds, thinking instead that arson was the cause, for instance; perhaps requiring more explicit framing work to achieve this as a result (Interview, 7th October 2022b).

For completeness, the wildfire image captured respondents' interest strongly although it was not particularly informative in a general sense (also Interview, 28th April 2022). It did, as alluded to concerning negative framing and powerlessness, have the effect of being more discouraging than otherwise. This could hold knock-on consequences for what this image is able to achieve regarding effective image use in environmental and climate communication efforts, including with existing or potential movement members. Lastly, and while the difference was again minimal, it appeared as though Conservationists were slightly less impacted by the image although the general trend remained in-keeping with the other group types.

The consistency of agreement between the three case groups continued concerning how Image Five's Nature representation was received. Here, the data showed that the wildfire was understood to convey a particularly negative vision of Nature. Sharing similar degrees of perceived vulnerability, wildness, familiarity and poor health, Image Five was nonetheless seen to communicate a Nature which was dirtier, uglier, more dangerous and marginally less non-local than Image Three. The negative feelings associated with this wildfire photograph therefore mirrored its negative depiction of Nature.

In this light, comments can again be made about the strength of Image Three's enduring framing. This is possible due to how the extent of vulnerability understood to exist in this image's Nature construction was almost equal to the vulnerability conveyed through the wildfire scene. To elaborate, the flames and immediate danger presented by the wildfire could be contrasted against what might be perceived as a more peaceful, less urgent and less issue-focused image of the polar

bear, which further shares subject similarities with Image One. Indeed, SD data relayed how respondents considered Image Three to represent Nature as very beautiful, wild and predominantly clean, yet simultaneously as vulnerable as Image Five which was alternatively judged to be dirty, dangerous and ugly.

The synecdochic frame linking this otherwise clean and arguably tranquil 'natural' scene of the polar bear to global warming can therefore be seen to be strong. It renders this representation as threatening and as vulnerable as a fire raging in the present and visibly causing destruction. This thereby speaks to ideas around the visibility of referents in visual communications, and it is perhaps Image Three's strength of framing which allowed it to evoke such a response from respondents despite global warming being relatively invisible compared to the immediacy and visual drama of the fire. The comparison to Image Five, then, helps to underline the continued saliency and resonance of the polar bear climate icon despite its long-standing use and adoption for counter-framing efforts. Image Three therefore continues to represent an effective communicative resource and framing device, particularly for Radicals, but less so for Conservationists as mentioned earlier.

To consider SD results, it was interesting and potentially important how respondents received Image Five regarding localness and wildness. A starting point for this can be the Western media attention placed on wildfires around the time of data collection in which they were ongoing in Western contexts (like the US and Australia). A US context is suggested by the photo credit and the firefighter's uniform in Image Five, and so this broader Western focus was reflected in this image. Therefore, images like Image Five were presented through the mainstream media as already directly impacting upon and threatening Western countries and communities. Furthermore, in response to the survey 99 percent of all respondents irrespective of group type (Q.24) and country (Q.20) believed that Nature was under threat in the country where they currently reside (Q.5); perhaps lessening the (imaginable) distance between disasters and their own lives or communities, and raising the threat.

Despite this, the SD revealed that on average Image Five was seen across group types to be more non-local and (albeit to a lesser extent for Conservationists) wild. Put differently, despite similarities provided by the impact of such disasters upon Western communities, a sense of continued geographical distance remained. In the literature, such distance was argued to potentially reduce engagement or concern for the image's subject matter (Duan et al. 2017; Hoffbauer and

Ramos, 2014; Nicholson-Cole, 2005). However, the strength of Image Five with its negative frame was still able to produce for respondents a deep worry alongside peaked interest. This occurred once more in a context where not every participant was significantly ('extremely') worried about natural disasters such as wildfires, and so arguably not the most susceptible to images of this theme (Figure 9.9; survey Q.1). This could be especially the case with Conservationists.

Figure 9.9: Concern for Natural Disasters by Typology, *n*=137.
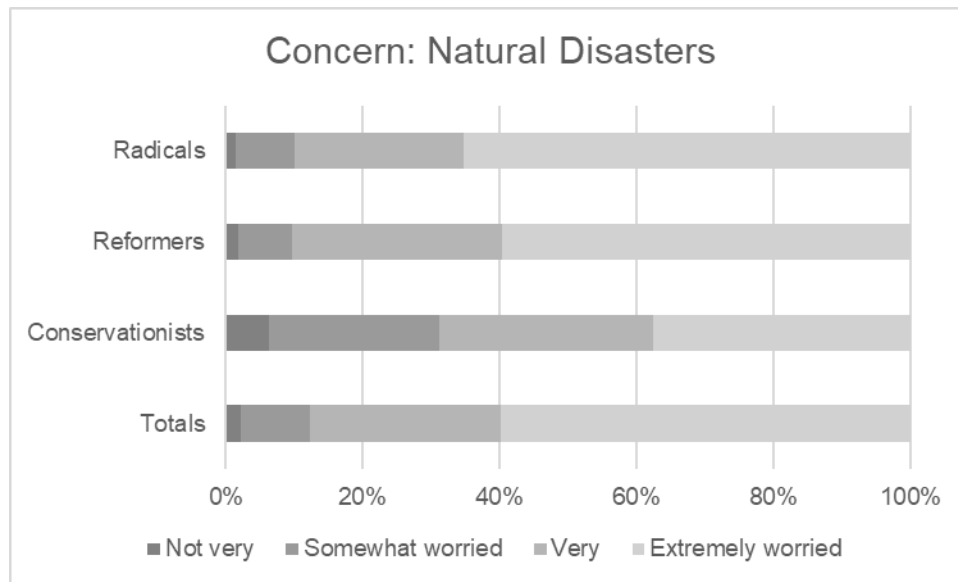
In other words, Image Five's reception suggested that images with a perceived geographic distance can be productive of interest and engagement in a manner akin to a closer experience of depicted events. This was the case for a Swedish interviewee who felt a greater climate concern following unusually high temperatures and forest fires domestically in 2018 (Interview, 21ˢᵗ April 2022). In this sense, the impacts seen with Image Five were comparable to those of negative frames made already within this chapter; including how it did not necessarily result in disengagement from an overwhelmed viewer, as cautioned within existing literature. This, like geographical distance, can contrarily lead to engagement and deep worry as suggested by this project's data.

Regarding typology expectations for how different image themes would be received by members of varying movement groups, the understanding of Nature's representation was a shared one for

Image Five. This was again an interesting result visible with the previously considered imagery. It suggested that, despite respondents and images originating from different types of movement actor, the ways in which each image represented Nature was similarly interpreted irrespective of group affiliation and image theme. Certainly, images embedded within the survey were chosen for their creation by the different group types, as well as how they represented a variety of core themes found within the movement's visual communicative practices.

It could have been expected that the different image subjects, issues and framings – positive, negative and seemingly non-existent – would have influenced different readings between group types. This, however, did not appear to be the case insofar as Nature representation was concerned. Consequently, given persisting consistency in how Nature's construction was understood and the subsequent absence of alternative readings, the lack of a definitive polysemic characteristic regarding Nature representation for many of these images emerged.

With respect to Image Five's affective impacts, additional slight variation was found which put Conservationists at a greater distance from Radicals, with Reformers in the middle; as expected under the typology. As noted above, differences were only marginal and so little support was again found for the image preference or resonance expectations discussed earlier. From the differences which were observed, Image Five with its theme of threat, risk and immediacy appeared to have a greater affective impact for Radicals and, to much the same extent, Reformers. In this way, the image may be more evocative when targeting constituents or adherents linked to these two group types, although Conservationists would also feel affects based on a similar reading of how Nature is being represented.

In terms of how respondents judged potential use, every usage was deemed applicable by over half of all respondents on aggregate. This thereby indicated a generally useful image with the only exception being the promotion of participation in protest for which just under half of the full sample agreed possible (47 percent). Common among the previous four images examined, awareness raising after first catching people's eye were the two most highly envisioned uses for wildfire imagery (86 and 84 percent, respectively). The remaining categories, excluding none of the above, received up to 65 percent selection from across the total sample.

Looking at the group-specific results revealed a largely consistent picture across types with only a few notable differences of above ten percent. Regarding these, a little over half from among the

Conservationists determined that Image Five could be used to inform attitudes, while a comparably higher number of Reformers thought likewise (72 percent). It was the Radicals positioned in the middle of the other groups on this occasion. While Radicals and Reformers were always in-keeping with each other's evaluations of Image Five (promoting protest participation the exception here), Conservationists were found to differ in more areas.

These included informing debate (Conservationists at 44 percent, Radicals and Reformers at 64 and 62 percent, respectively), promoting environmental group membership (31 to 59 and 56 percent) and promoting participation in protest (31 to 52 and 44 percent). Resultantly, each group type reported the possibility that Image Five could be used for catching attention before raising awareness and perhaps influencing attitudes and behaviours. To inspire some form of movement involvement through this, however, was not seen to be the case by most Conservationists. This marked a departure from the perspectives of Radicals and Reformers, and perhaps again from classification as a movement actor.

Considering what this means for Image Five as a communicative tool, the wildfire image was understood by all to present a negatively-oriented construction of Nature on average. It was one of dirt, vulnerability, danger, ugliness as well as poor health. This corresponded to a range of similarly negative feelings reported in response to seeing the image; feelings which were more discouraging than not. That said, the image remained of high interest to the average respondent irrespective of group type. Taking this into account, respondents proceeded to judge Image Five as being not only an evocative image with a negative framing, but also as one with the potential to catch people's attention through its dramatic yet albeit negative visual aesthetic before influencing viewer attitudes and behaviours.

However, it may not be as successful in terms of appealing to a pool of constituents and adherents where the aim is to gain their participation in protest or influence them further to become group members. These possibilities may reduce more notably where wildfire imagery is used to communicate with Conservationists, based on their lower overall judgement of image use. In this way, typology expectations in which images with themes of threat and danger are more impactful and hold greater sway over Radicals, and less over Conservationists, was lent further support. Resultantly, wildfire imagery might still be best used when targeting Radicals and Reformers in environmental or climate communications.

It is interesting that this seemingly useful and effective image which can draw interest and more deeply impact upon viewers across the typology was one with a negative framing; and one which SD data relayed to be more discouraging than otherwise. It could be, then, that negative framings of Nature and related issues could form an important and useful component of movement communications even though a risk of overwhelming and disengaging viewers may exist. Perhaps the ideas of Milkoreit (2017) in which negative imaginaries can inspire action could be seen to gain some support on these grounds.

Indeed, it has been the negatively as opposed to positively or neutrally-framed images which have had the most significant affects. It was these which have also enjoyed the widest applicable range of uses deemed appropriate by respondents. This result is notable and of potential interest to those involved in communicating environmental and climate challenges across the constituents and adherents of different movement group types like the Radicals, Reformers and Conservationists studied here.

Insofar as Nature representation and image feeling's measurement was concerned, factor analysis results were again consistent for Image Five as with the other images. Consequently, the scales through which these sub-concepts were examined returned the categories expected in line with an EPA structure of meaning (Appendix Five). In this sense, what the scales were intended to measure seemed to be fairly well captured. Reliability tests for these three factors also returned good results, and so their internal consistency would support this claim. There were, however, two additional factors of one item each. These were localness and familiarity, respectively, and they indicated again that these two scales did not meet prior expectations since they were also organised into additional factors for Image Two, Three and Four; whilst also falling outside of the list of factors with eigenvalues above the value of 1 for Image One. They may not, therefore, be consistent measurement tools (Chapter Six). This concludes consideration of Image Five.

9.2.6 Image Six: Landscape

The final image, Image Six, was shared by a prominent UK-based conservation group, the National Trust. It captures many of the ideas discussed in earlier chapters surrounding the Enlightenment-derived and Eurocentric 'landscape' construction of Nature. To elaborate, this image reflects the landscape view's core emphasis on valuing the aesthetic beauty of Nature through a detached, cognitive gaze. In this vein, Image Six could be seen to invite people to adopt a passive engagement with the depicted environment which does not extend beyond the visual. As a result, the image arguably does not pose a challenge to this dominant cultural construction of Nature and, by extension, people's relation to it.

Image Six:

Source: "Sunrise over Rockford Common, New Forest, Hampshire", John Miller/National Trust (no restriction).

Indeed, as was argued previously, this could be problematic if the intention is to encourage engagement on environmental and climate issues. This is since it offers no disruption to the set of values and ways of seeing Nature which could be deemed to have contributed to these issues in the first place by objectifying and externalising Nature. It was on this basis that Latour's notion of the New Climatic Regime was drawn upon in Chapter Four (Latour, 2018; Latour et al. 2018), and how the additional interest in examining the extent to which Radicals – who call for more fundamental system change to address climate change – may offer visual challenges to the landscape construction and valuing of Nature.

Through this they may lean towards a perspective which centrally recognises the active agency and interconnectivity of Nature alongside the human. Their imagery could then be expected to hold the potential to reflect attempts to move beyond a subject-object or human-Nature divide like that bound to the construction of Nature as landscape; as an idyll to behold for its beauty, a place to preserve (or, for that matter, conserve) and/or as a neutral material for use.

Relatedly, it was further suggested that Radicals may be less interested or encouraged by imagery which reflects these themes and, by extension, place more emphasis upon images involving threat, risk, urgency and system change (thus possibly extending to alternative constructions of Nature in contrast to 'landscape'). Conservationists, on the other hand, were assumed to lean in the opposite direction; expressing more interest, encouragement and a positive evaluation of Nature when presented with a landscape frame. As before, Reformers were expected to fall somewhere in between these other group types given their mix of radical and institutionalised characteristics under the typology.

The SD for Nature representation and image feeling from Image Six contained the most unique trends regarding each groups' average responses to the survey images. As seen earlier, these trends were followed closely by Radicals, Reformers and Conservationists alike with only minimal variation between them. This involved agreement that Nature was represented as significantly clean and beautiful, as well as highly safe, familiar, local and healthy. The presentation of Nature offered by Image Six was further perceived to be fairly wild and resilient. The lower level of wildness could relate to the high degree to which this Nature was seen to be local and familiar. This result would suggest an accessibility and direct experience of this form of Nature for respondents, rendering it less wild and unknown as a consequence.

Although 65 percent of respondents indicated that they live in urban areas (Q.22; Figure 9.10), including towns, cities or suburbs compared to rural locations (34 percent), it was raised in interview how 'typical Swedes', for instance, often have second homes in more rural areas and that those living primarily in cities enjoy easy accessibility to Nature (Interview, 21st April 2022; also Back and Marjavaara, 2017). Therefore, urban living did not seemingly place a rural scene like Image Six at a greater distance or unfamiliarity to respondents. This perhaps indicated, similarly to the interviewee, that Nature remained accessible or known to respondents regardless of the general environment where they live.

Figure 9.10: Area of Residence by Typology, *n*=137.
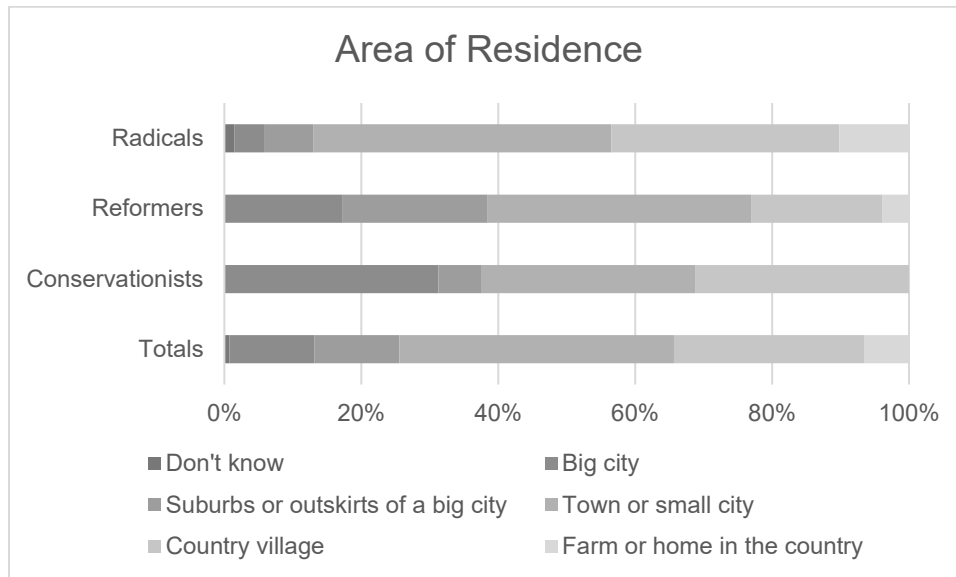
Corresponding with this positively-interpreted Nature representation, how Image Six made viewers feel also leant towards the 'positive' end of the scales. Here, for instance, respondents reported feeling particularly calm and relaxed, and moderately happy, interested and secure. There was no threat to feel worried or upset about. The landscape image, therefore, did not challenge its viewers and, perhaps by extension, did not inform or empower them.

In terms of how these were measured, expectations proposed in advance of factor analysis were again largely met like with the previous imagery. The 'knowing' factor involving familiarity and localness elements returned having been present earlier through Image Four. A new fifth factor was also found and this incorporated the managed-wild scale by itself. The factor was thereby labelled 'wildness' to reflect this, although again questions remained (see Chapter Six). Factors were subject to reliability tests as before, and results indicated that each applicable factor held a good level of internal consistency (Appendix Five).

Figure 9.11: Image Six Semantic Differential
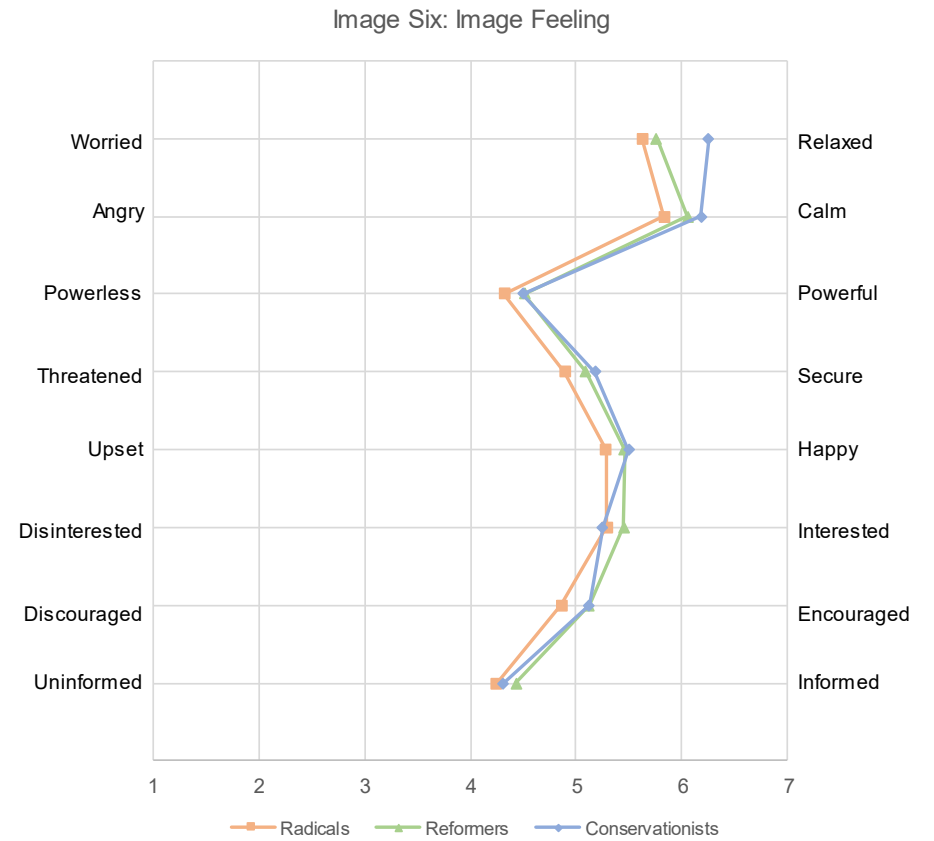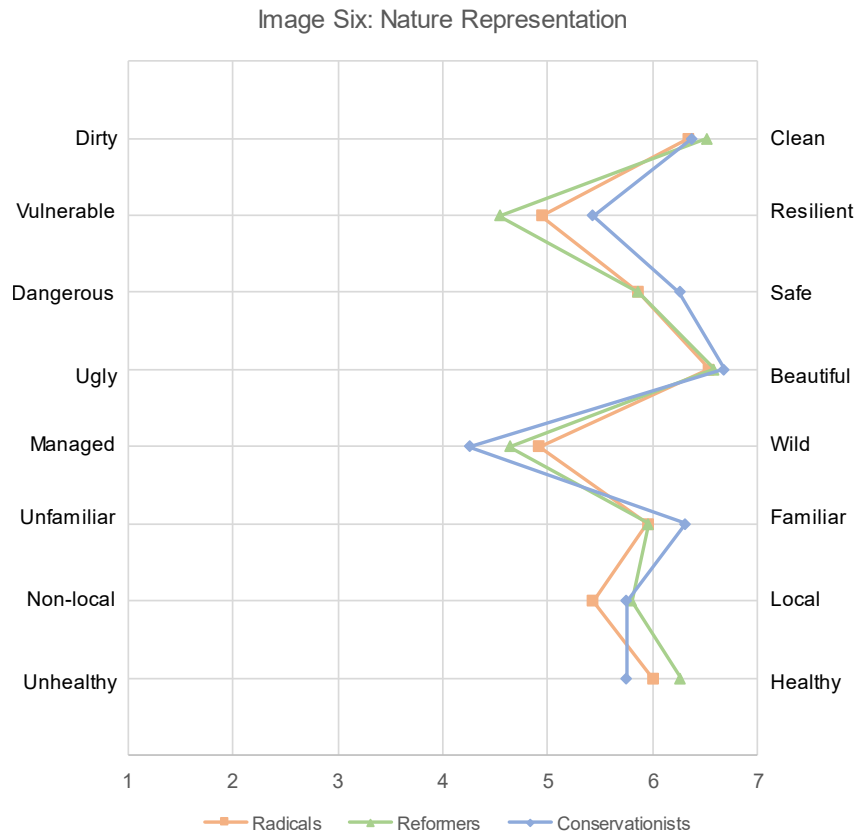
Concerning how respondents deemed Image Six to be useful, no use enjoyed over 50 percent agreement within the full sample and group-level samples were equally low with few exceptions. Among these exceptions, exactly half of Conservationists (50 percent) decided that this image could be useful for promoting environmental group membership, while only 32 percent of Radicals (the lowest among the types) saw this to be a possibility. While figures consistently indicated that no more than half of Reformers agreed that any of the categories were applicable, it was this group type which still identified the greatest usage possibilities. The other two were somewhat similar overall. Reformers and Conservationists did both see the possibility to catch people's eye as existing to an almost equal extent (54 and 56 percent, respectively).

It was also notable that the 'none of the above' option was chosen by 27 percent of all respondents, with this mainly comprised of Radicals (36 percent) followed by Conservationists (19 percent) and, close behind, Reformers (17 percent). This is one of only two images embedded in the survey to receive such a significant – and critical – evaluation of usefulness; the other being the Blue Marble (Image Two) on 23 percent overall. Both of these lacked clear framing and this may be the cause of their judgement as far less useful than the other images which all included some form of frame and/or contextual information. Put differently, framing was therefore crucial to visual communication 'success' in usage.

While Conservationists were originally expected to see the greatest potential in this image, Reformers were found in comparison to be the most positive about image use. This included the exceptions of catching people's eye and promoting environmental group membership which the Conservationists chose to a marginally larger extent (56 to 54 and 50 to 48 percent, respectively). For the 'none of the above' category, Conservationists indicated a lesser use for this image than Reformers, but with only a minimal difference between the figures (19 to 17 percent). More in line with expectations, however, was how a significantly larger proportion of Radicals failed to see any use for Image Six (36 percent of the group sample).

Despite the mixed Conservationist-Reformer picture emergent from the data, this latter result was more in-keeping with typology-based expectations; namely that Radicals would express a lesser preference for visual materials like Image Six in favour of themes of vulnerability, risk and protest according to their greater level of radicality. That said, this positively received image, both regarding how it constructs and communicates Nature and what affective qualities it contributes

to within viewers, was judged by participants to have the lowest possible range and extent of usage among all of the images within the survey.

Put differently, despite the positivity associated with its representation and ensuing feelings, Image Six was suggested to be an ineffective image in terms of framing and/or resource acquisition, irrespective of group type. This was albeit to a slightly lesser degree insofar as Reformers might be concerned. How this relates to possible movement actions to re-frame human-Nature relations following the theory will now be considered, followed by a summary of this chapter's core findings.

9.3 Discussion: The Persistence of 'Landscape' and the Strength of Framing?

9.3.1 Constructing Nature

Continuing from Image Six, then, to what extent might this last image with the positive readings and feelings produced relate to a continuation of a culturally constructed and inherited preference for 'landscape'? Under one view, this image was read and felt as it should be under a landscape perspective; as a Nature that is clean, beautiful, happy and calm. However, despite this positive reading, Image Six received only low scores for all image uses and so was suggested by the data to not be an effective communicative tool in general.

Putting image use to one side, the degree of positivity in the reception to this image indicated how such a presentation of Nature still appealed, and how a susceptibility to accepting and adopting a landscape view over Nature persisted. This was witnessed across all groups and did not therefore meet expectations around the typology. These findings suggested that there is a risk that from the most radicalised segments of the environmental and climate movement, through to the most highly institutionalised, a problematic Eurocentric construction of Nature in which it is valued for its unchallenging visual aesthetic can still be reproduced.

Indeed, in knowledge of the extent of environmental and climate degradation and their associated concerns, respondents still reported feeling very calm, happy and relaxed. This was the case even when faced with a two-dimensional image mediated by a computer screen and, therefore, in the absence of direct experience of the Nature depicted by Image Six. This point complemented the central claims of Nadkarni et al. (2017) who found positive effects on the mood and behaviour of

prison inmates exposed to imagery of natural environments. Visual materials of Nature in this and previous studies have therefore been seen to provide meaningful affects akin to direct experience.

Given this positive reception to Image Six emerged irrespective of group type, this response may result in a lesser degree of reflection and challenge made towards this still dominant Western construction and valuing of Nature. Prospects for realising a reshaped value structure and behavioural practice in response to Latour's New Climatic Regime, or even Touraine's stricter requirements for recognising social movements, could then perhaps be dampened by extension if landscape indeed remains the preferred and/or default reading of Nature across the environmental and climate movement.

In this, then, the clearest answer to the additional question developed within the theoretical chapter of this research (Chapter Four) is reached. The response is that, on the basis of cross-group type reactions to Image Six as the 'landscape' image, it appeared that a fundamental reimagination of human-Nature relations which breaks the uncritical reading of landscapes as valuable or pleasing on the grounds of beauty and leisure (relaxation), remains doubtful. To restate, whether Radical, Reformer or Conservationist, and whichever country was called home, a problematic Eurocentric cultural construction of Nature can be received and consumed in a way which sees these scenes seemingly much-vaunted for their significant and wholly positive (aesthetic) appeal.

As first noted in Chapter Two, such perspectives could serve to sanitise this Nature and render invisible and thus non-concerning or unimportant the issues which lie within; including climate change, pollution, wildlife health and the struggles or agency of people who call such places home (more broadly, Fineder and Reitstätter, 2021). Through acceptance of this, it could be suggested that the dominant cultural master frame of landscape would be unlikely to be fundamentally challenged through movement participants and associated visual communications.

Certainly, the content analysis revealed that 13 percent of all images in the final sample (n=144) contained a specifically aesthetically beautiful rendering of Nature in accordance with landscape. 33 percent of the same sample presented a clean Nature, and 26 percent a theme of wildness. The adoption of a view of Nature from a place of dualism and externalisation was one of Latour's criticisms of the environmental movement concerning efforts to realise the 'New Climatic Regime' and map out an alternative (Latour, 2018; Latour et al. 2018). Consequently for Latour, Nature

was seen to be treated problematically as a matter of fact rather than as a matter of concern (Chapter Four).

Should this be the case, one arguably core problem would be that this landscape construction could serve to obfuscate issues in Nature. As was raised through interview, even in the UK in places like that photographed for Image Six a degradation of Nature can be witnessed (Interview, 28th April 2022). For this interviewee, who adopted a critical perspective on the image based on personal experiences within Conservationist organisations, while they would like to be in the area pictured and can feel happiness around such Nature, this was tinged with a sadness and anger at these environments' currently low levels of diversity.

A key question raised in this interviewee's mind when faced with this scene was, therefore, where is all the wildlife? This extended into a consideration of what should be there and whether the environment should look the way it does. It is a scene of Nature conversely without much of the Nature that would be expected to inhabit these spaces (Interview, 28th April 2022). This insightful perspective thereby reflected the ideas of visibility and invisibility discussed by Gariglio (2016) where contestation between what was seen and what was known emerged through photo-elicitation interviews.

Moreover, the interviewee commented upon how Nature, despite the absence of expected wildlife, was nonetheless presented as an untouched, pristine environment. This, they suggested, was the case even though to them the central tree appeared planted and the framing perhaps purposively designed to exclude directly showing a human presence. It was therefore raised how there may have been a house beside the photographer which would dramatically render this Nature less wild and untouched than it may first appear (Interview, 28th April 2022).

This was a theme developed earlier and supported by this interviewee's reading of Image Six. The point was that untouched landscapes and wilderness can and perhaps often do still contain human influences. Yet, images of these places can render these features – and any related challenges or human-led degradation – invisible and thus not necessarily perceived by the viewer. This was most notably discussed in Box 3.9 (Chapter Three).

These perspectives were not always shared by the other interviewees. For example, although Image Six could be categorised as closely relaying a Eurocentric landscape construction of Nature which

is visually appraised for its beauty (or potential commodification) and devoid of challenge, its effects could vary. Three of the XR-associated interviewees here all concurred that this visual spectacle produces positive emotions which, as was unseen with the survey data, points towards an idealised future of how thing should be in a manner similar to an interviewee response to Image One above (Interview, 7th October 2022b). Consequently, this image helped produce feelings of 'Serenity. Peace. Dawn light. Soft grass. Chance to start anew' (Interview, 7th October 2022a), as well as reflecting a sense of 'hope - a new dawn and the possibility of a brighter future' (Interview, 7th October 2022b); ultimately, then, that 'a better world is possible' (Interview, 14th July 2022).

These responses thereby suggested how this form of 'landscape' image of seemingly untouched, pristine Nature may not solely result in passive attitudes. It may instead also feed into preferred visions of a future world and desires to realise it (Milkoreit, 2017). Interestingly, it could evoke these sentiments without directly depicting people; and perhaps this was part of the influence that without people Nature appeared unthreatened. However, it did not speak to a greater human-Nature connectedness which could also be important to changing values and engagement with Nature, including through future imaginings of reorganised relations (McNally and De Andrade, 2022).

The practical ways of reaching this new future remained unexpressed by the photograph and interviewees. Additionally, as previous research has shown that people from diverse cultures can value these Nature scenes differently (for instance, Buijs et al. 2009), the extent to which this 'new, better world' vision could be produced in non-Western or European accounts where the landscape presentation of Nature is not as evocative or visually appealing remains open to further important investigation.

Inter-group type differences within the survey data should further be recalled here since the proportion of images with the aesthetically beautiful theme, for example, was still lower for Radicals (six percent) than Conservationists (29 percent), with Reformers in-between (16 percent). The latter group type shared a higher proportion of the alternatively vulnerability and threat-themed images (57 percent) alongside Radicals (64 percent). Conservationists represented 20 percent of this theme's presence, which was identified in 33 percent of final sample images overall. These earlier results therefore met expected typology differences regarding the proportions with which different themes appeared within group visual communications.

Nevertheless, the key point here is that, although Radicals and Reformers perhaps do not contain many landscape-relatable images within their communicative materials, they could nonetheless be seen through the SD data to view such landscape scenes positively; as well as to see the beauty over other perhaps invisible issue-related components of the image. By extension, this arguably reflected the continued relevance and persistence of a 'landscape' cultural construct of Nature which, as outlined previously, is not unproblematic.

An additional and visually-led argument may be introduced here, exemplifying how Image Six is a reproduction of a culturally and thus generally shared vision of Nature. Image 9.3 (below) illustrates this point. Image Six from the survey and Image 9.3 are from different photographers, countries and shared by different organisations online.[35] Yet, these visuals are strikingly similar to one another. They both capture a single tree in the foreground, slightly oft-centre to the left, with the sun rising or setting behind it; and slightly obscured as a result. Furthermore, there is an absence of direct human traces in the form of people or buildings.

This similarity speaks to the existence of a set of culturally-engrained codes, norms and value structures around how Nature can – and is most desirable to – be captured, communicated and seen by an audience. In other words, it is a set of culturally-derived ideas which value the spectacular beauty of uncontextualized, unproblematic, beautiful Nature. Both images therefore position the viewer into the same subject-object relation whereby the latter is seen and cognitively judged in a positive manner due to its aesthetic appeal. This is consistent with Image Six's SD data.

In line with this, one interviewee raised an insightful point that photographers often take the photos that they are either tasked to while on assignment, and/or those that can be sold. A form of bias was therefore said to exist in the stories that are tellable through their visuals. Resultantly, it was discussed how this can constrain creativity beyond the reproduction of a dominant and dominating Western cultural framing of Nature and related modes of human engagement with it (Interview, 9th June 2022; also Hayes and O'Neill, 2021). For this interviewee, such a frame was characterised as a narrow photographic aesthetic with global influence which they associated with ideas of 'tradition' and 'legacy' as opposed to 'progression'. The latter was most clearly talked about through this individual's emphasis on the question of whether an image achieves something important and meaningful, such as shifting opinions on an environmental challenge like

deforestation, rather than being valued for its appealing (and sellable) aesthetic (Interview, 9th June 2022).

Image 9.3: Landscape Replica

Source: "Untitled", Marta Panco (CC BY-NC-SA 2.0).

Nevertheless, an organiser with XR Sweden noted how their group has built links with professional photographers who focus upon capturing human exploitation of Nature through visualising the consequences of human actions, albeit without directly presenting people (Interview, 21st April 2022). XR groups in the UK have also commissioned visual materials to use, including to attract readers to group blogs or similar (Interview, 7th October 2022b).

To bring the other sampled imagery into this discussion, Image One focused on human intervention to restore Nature, rather than on the agency of Nature and how the ways in which it is currently viewed and consequently dealt with, including through deforestation, is arguably problematic following the conceptualisations of Chapter Two and Four. Certainly, the image could be seen to render the underlying issue invisible except through inference based on the text. The textual element nonetheless presented a conservation success story frame which may have been designed and used with the goal of securing new or continued donations to fund the group and its activities. In this way and through this text-based positive frame construction, Image One could be seen as a resource designed to serve these ends when interpreted with the RM scholarship of social movement studies. In sum, Image One presented a positive framing by combining image and text

which was not explicit about root issue causes, but rather portrayed as a success the exercise of human agency within a passive Nature.

Image Four, meanwhile, was maybe not as straightforward given the smaller and indirect visibility of Nature which was situated exclusively in the background. Images of activists were nevertheless suggested by Bajusz (2021) to offer the possibility of decentring humans and placing them firmly within Nature when they are depicted as risking their lives for Nature. It is perhaps in this way, then, that protest imagery may contribute most explicitly to an alternative to the detached cultural landscape frame. However, this type of protest activity was not recorded through the content analysis and so such possibilities for counter-framing around human-Nature relations grounded in landscape constructions remained unseen. This was despite protest comprising the central theme of 20 percent of the content analysis' full final sample.

Presented without identifiable framing through the absence of contextualising editing, Image Two was not conducive to challenging dominant norms, values or visions surrounding consequently detached human-Nature relations either. It remained a beautiful image of Nature according to the data, but little else besides. Lastly, Image Three and Five presented negative framings which, in the former case, was possible through previous frame establishment which resulted in polar bear imagery's iconic synecdoche status around global warming. Contrasted against a beautiful, spectacular Nature visual (powerful animal, vast sea), this image and frame could be understood as offering a challenge to a neutral reading of these clean, appealing landscapes as external and detached. It could do so by transforming it into a story where a more sinister undercurrent exists around the presented visuals; a subversion of a landscape-based valuing of such scenes.

However, while this framing existed for Image Three, neither this nor Image Five directly centred humans and human activities as the underlying causes of the communicated issues. In this way, they could be seen to be somewhat similar to Image One in their framing, minus the text. It could be questioned, therefore, just how far any challenge to human-Nature relations and landscape-based value structures exists without this direct, explicit connection to the human part of this relationship. Image Five, moreover, does show a person in the foreground but, as noted above, they too are a passive spectator of environmental destruction; perhaps much like sections of the image's audience as a result. There was an absence of a reimagined connectedness and proximity to Nature, too (McNally and De Andrade, 2022).

This general orientation towards a non-challenging of landscape constructions of Nature from within the data can also be related to another aspect of the content analysis. This additionally relevant finding was that, in a notable 22 percent of the full movement image sample, Nature was not placed as a central or joint protagonist in its own right, exercising agency alongside humans. Instead, in this portion of the sample Nature appeared as a neutral backdrop subservient to other image components such as text; including, it appeared, in some of the more abstract XR imagery.[36] It thus remained a largely aesthetic element. Again, a significant proportion of movement imagery thereby appeared to minimise Nature to a decorative element which is not necessarily engaged with by viewers beyond a passing visual recognition or aesthetic appeal.

That said, it was highlighted through interview that central to XR's designs is the idea that the 'only way to escape the society of the spectacle is not by leaving it, but creating interventions within it'; it is about a form of 'visioning' in which symbolism can also play a role (Interview with XR UK media member, 8th July 2022a). Here, the interviewee commented that it is possible to 'look at the horrors of the world through the lens of beauty'. This extends beyond colours which can be attractive and joyful (also Interview with XR UK media member, 8th July 2022b). In this sense, a subversion of existing visual expectations and languages could suggestibly be used to promote an awareness of environmental and climate challenges. It could 'upset the visual narrative', as one XR messaging and design guide advocates (XR, 2022:5). Indeed, XR UK interviewees pointed specifically to the group's use of spectacle to exactly this end; namely through the use of a pink boat and oversized table in different actions held in London (Interview, 8th July 2022a, b).[37]

This opens up the possibility that images which could involve a counter-frame do so through their inclusion within – and subversion of – existing aesthetic norms and expectations. Nevertheless, a landscape-oriented appreciation and value structure around system was present through the SD data, thereby suggesting its persistence as a core rendering of Nature. This was particularly poignant in relation to Image Six and how this was understood and felt in positive ways by individuals across the movement who are, by extension, among those with the keenest awareness of environmental degradation and climate challenges. As one interviewee noted (Interview, 28th April 2022), the invisibility of wildlife or the potential for housing estates to be behind the camera

from which Image Six inherits its viewpoint over Nature remains perceivable, yet these perceivable themes of vulnerability and upset were absent from the survey data.

9.3.2 The Receiving of Movement Imagery (RQ.3)

Reviewing the data from the movement imagery embedded into this research, the third research question can now also be addressed. The question asked *how is movement Nature imagery received by rank-and-file movement members*? In response, it is possible to suggest that positively framed imagery (such as Image One concerning orangutan conservation) had relatively little affect or effect, and the same was true of the more neutrally-framed Image Two (the Blue Marble); beyond both being seen as particularly beautiful images. For these, there was arguably an underlying environmental or climate threat, namely deforestation and global warming, inherent in each. Yet, they were reported to create the least affective impacts out of the six images representing core themes in movement visual communications.

The perceived uses for these images on aggregate, meanwhile, highlighted that they could both catch people's eye. What could be achieved afterwards, however, was negligible for Image Two and this was particularly true for Conservationists, but shared among each group sample. Image One, by contrast, could potentially also raise awareness and in turn influence attitudes and maybe decisions to join environmental groups. There was greater consistency between the three group types concerning these points. It could be, therefore, that there was a beneficial effect of Image One's text-based success story framing which was purposefully included in the photograph during the image production stage. This is because it seemed to increase its potential efficacy, including for promoting group involvement from across different group types.

Contrastingly, the absence of clear framing and contextualising information in Image Two may have reduced its efficacy and impact. As the Blue Marble was the most used icon within the image sample, this lack of resonance would be important for movement groups to recognise should they wish to communicate well with and further influence their constituents or adherents. This could especially be the case when targeting Conservationists who saw comparably less value in this image overall.

With a protest or conflict frame, Image Four involved a less direct presence of Nature. It was relayed more by background features and through the demands of the climate change-focused protest action. Indeed, as Iwadate (2021) highlighted, protest actions like in Image Four are themselves a form of visualisation which serve to communicate a grievance or point of concern. Although Image One was characterised as attempting to relay a positive frame and Image Three and Six a negative one, the protest frame is not as clear-cut. In the context of the sampled imagery, whether Image Four conveys a positive or negative frame, for instance, particularly depends upon the audience's predisposition towards protest.

This point was openly discussed within the interviews. Comments were made that how someone receives and interprets a protest image relates to their pre-existing ideas towards protest, as well as their politics and preferred sources of information or news (Interview, 28th April 2022). For some, they may approve of protest and consequently think more positively about images of activists. For others, the opposite may be true and this category of negatively-receiving audience members was believed by an interviewee to include capitalists and those on the political right as examples (Interview, 9th June 2022).

With image viewers who fall into the latter category, protest imagery could further entrench existing views or result in continued issue disengagement which image producers may not have originally intended (Interview, 28th April 2022; Interview, 9th June 2022; on disengagement, León et al. 2022). In this sense, it was additionally raised that protest imagery serves as a particularly good example of the importance of targeting certain types of audiences with specific forms of images (Interview, 9th June 2022; on protest, cf. Hayes and O'Neill, 2021). Under typology expectations, Conservationists were expected – and shown through the data – to express a greater disliking for protest-themed imagery in line with their lower degree of radicalism.

There were additional insights into Image Four from the interviews and which remain relevant not only to how movement protest imagery can be received, but also why they could be used by groups within their communication strategies. Elaborating along these lines, it was highlighted how the use of a very similar image on the website of XR Sweden was intended to communicate what collective action is whilst showing viewers what it is the group do in practice (Interview, 21st April 2022).[38] This image, to note, also focused upon a group of protesters holding a long banner. The text on the banner stated XR's three core demands: 'act now'; 'tell the truth'; 'strengthen

democracy' (translated from Swedish by the interviewee). The activists, who with opened mouths were perceived by the interviewee to be shouting or chanting, were marching through an urban environment with some trees in the background. Whether direct action was concurrently taking place could not be seen through the image (Interview, 21st April 2022), and the same was true for Image Four which appeared to be 'orderly' (Interview 28th April 2022).

The parallels between this website image and Image Four perhaps underlined a comment made by another interviewee; namely that a genericness to this type of image exists. If group or claim-specific references such as text or logos were subtracted, it was suggested that no information would exist about what the protest is about and who is behind it (Interview, 28th April 2022). This suggested that these types of textual or symbolic elements captured through photographs of protest are crucial for informing viewers and creating an understanding of the claims relayed through the image and event. Without this additional information to distinguish the action and core claims or demands from other events and foci, protest imagery could thus become an ineffective and uninformative visual medium within movement communications.

That said, another absence is that it was not clear who the targets of the actions were; of who the 'them' against the 'us' was. It could be presumed to be government or business, but the potential for a different or more specific target is also possible since this aspect remained unspecified. This information is also an important element for movement actors too, since it plays a role in a group's central claims, identity (of self, defined against the target) and involvement in some form of contention and conflict (the latter being fundamental to 'movement' definitions; see Diani, 1992; Touraine, 1985).

Another key element to these images is the people they contain. Image Four was noted in interview to present little diversity among participants (Interview, 28th April 2022), while that from XR Sweden's website was read in a similar manner with young, white individuals over-represented (Interview, 21st April 2022). Such a situation in which certain ages, races, classes or similar are represented to a greater degree than others could suggestibly result in many individuals being unable to easily identify themselves within a movement image, action and/or group. This holds consequences for what images can convey and to which people, with possible detriment to their involvement in protest, for example. Indeed, recalling the demographics found in images containing people within the content analysis (Chapter Seven), Reformer and Demonstrative

Outsider imagery only included whites while younger individuals and females were similarly dominant across the sample as a whole.

The representation question, then, would be important to how groups are able to speak and appeal to wider audiences (also Macarthur et al. 2019). Under an RM perspective, this could involve the use of inclusive images to broaden the pool of constituents by targeting adherents who share similar concerns but have not previously felt represented by a group. It could also involve frame extension, the process whereby groups link their core concerns into other issue areas (Snow et al. 1986), with visuals identifying linkages between, for instance, climate change and social, economic and/or generational injustices.

Certainly, it was explained how XR Sweden are conscious of this demographic question (Interview, 21st April 2022). As a result, an interviewee from this group discussed their active attempt to use images including diverse demographics. This was since such images convey what the group would like to be and what it stands for in line with their social agenda, although the group is largely made up of white middle-class members. Through images of parents and children, a notion of care is also intentionally constructed (Interview, 21st April 2022). This consciousness may also account for the demographic-related data from the content analysis in which a range of people were discovered. Here, 18 percent of images in the full final sample included people. Of these, under half showed only white individuals (46 percent). Meanwhile, 58 percent did not show male-only scenes and only 27 percent provided sole representation to a comparably younger (roughly under 40) demographic.

Colour formed an additional element to Image Four as well, however. Looking at this image, the type of blue appeared as unattractive and better avoided within the interviews; being likened to a corporate-style shade (Interview, 28th April 2022; also Janotová, 2022, who spoke of a movement shift towards corporate-style visual practices and 'brand' marketing as part of a professionalised curation of their online content). For this interviewee, although they felt slightly positive with the image of people taking action and making personal investment in what they believe through handmade placards, the main colour scheme was uninspiring (Interview, 28th April 2022). Even though the banner makes direct reference to water ('Wasser'), the colour choice was subsequently deemed to provide a 'sterile representation of water' within the same interview. This reflection thereby echoed comments made above regarding the Blue Marble where the use of colour,

including symbolically, was an important aspect to consider in how an image can be received by its audience.

This was another area in which XR Sweden has focused, including on the overall design of their website. The online colour theme, it was explained, derived from a general XR-wide scheme which is used to create an international-level identity and connection across groups (Interview, 21st April 2022); an interesting use of colour in and of itself. Elsewhere, this intention through the use of colours has been presented as responding to ideas that they 'need a unified look and feel', and one which can render XR more visible in the public eye (XR, 2022:2).

However, XR Sweden decided to convey less anger through their colour use, and so reduced the amount of yellow used within the original theme (Interview, 21st April 2022). While possible online, additional practical questions around colour use for physical materials such as posters and placards exist; namely about what colours are available and affordable at any given time (Interview, 8th July 2022a). In this sense, offline colour use may be constrained and not necessarily reflect attempts to communicate particular meanings (Interview, 8th July 2022b). Nevertheless, with XR Sweden there was a simultaneous shift towards warmer colours which attempted to communicate impressions of love, care and vulnerability which are important recurring themes within XR communications (Interview, 21st April 2022; also Interview, 8th July 2022a; XR, 2022).

Within a wider literature, colour has been widely discussed as important to meaning-construction with particular significance to emotional reception. Within this, for instance, the colour red has been found to be negatively received by adults and children alike (Gil and Le Bigot, 2016), but colours such as green positively perceived (Jonauskaite et al. 2019; Kawai et al. 2020). Others, however, have pointed towards an ambiguous or polysemic quality to red whereby it becomes associated with positive feelings of love and warmth, whilst also relating to anger and danger, for example (Jonauskaite et al. 2019; Kawai et al. 2020). It was on this basis that context was held to be important, including through use alongside negative or positive words (Kawai et al. 2020), although black was found always to be associated with negative emotions such as fear and sadness (Jonauskaite et al. 2019). While cross-country and cultural-specific differences have been identified, such as white's association with death in China but not in Western Europe, a notable degree of consistency in the emotional reception of colours has also been found (Jonauskaite et al. 2019). This arguably holds implications for the success of visual communication and intended

emotional valence across wider, international audiences; possibly broadening an image's suitable audience insofar as colour signification is concerned.

Consequently, black may be a colour to avoid where the aim is to galvanise action rather than discourage (although black's reported association with fear could perhaps result in 'approach' reactions, too; see Newhagen, 1998). Caution with the context within which red is used, with green used where conveying positivity is desired, could be advised on the basis of these studies. Overall, the possibility remains open that the salience and emotional reception of movement and general climate or environment visuals could in part reflect the colours used. The effect of colour within these images, therefore, arguably represents one possibly insightful avenue for future study.

Conveying notions of vulnerability, however, was considered harder to accomplish through colours and thus contributed to XR Sweden's use of another image on the website to communicate vulnerability (Interview, 21st April 2022). This image showed a flooded road with a young girl in the foreground looking towards it. It would be interesting to use this or a similar image in comparison with Image Five, for instance, to measure viewer reactions to these different vulnerability and natural disaster images. One interviewee, for instance, discussed how flooding can appear as less dangerous than fire, including with reference to historic and religious themes such as the 'cleansing' – and thus positive – Biblical flood at the time of Noah (Interview, 28th April 2022). Moreover, survey results (Q.1) indicated that there were differences regarding the extent to which movement members are concerned with future generations (such as the girl in the flood image) and the impact environmental degradation and climate change may have on them (Figure 9.12). Examining these figures, the number of 'extremely worried' Conservationists stood at 31 percent, with Reformers (77 percent) and Radicals (87 percent) proportionally more worried. Indeed, the mean differences between Conservationists were notably reported through ANOVA as -.92 against Reformers and -.94 in relation to Radicals.

However, as found with conservation and global warming, issue concern did not strongly influence inter-group differences and reactions to the sampled imagery. Indeed, this project has suggested that frames are more important for how viewers receive an image, and less so the extent of their pre-existing concerns with the visualised issue theme. In this sense, Conservationists with a lower expressed concern for future generations (in terms of those 'extremely worried' only) may still be

affected by the flood image, and potentially see it as a useful communicative tool in the manner of Image Three and Five which also shared a negative frame.

In sum, therefore, the purposive use of colour in visual communications not only indicates how they can have important symbolic influences over meaning, but also emotive qualities too. While positive or negatively received, this usage would arguably reflect cultural associations of colour with feelings or symbols (like the colour red with danger, love and global warming in the UK, for example) which opens up the possibility that the ways in which these visual materials are received by audience members could reflect their cultural backgrounds and interpretations; an important consideration to be explored fully in future research.

Figure 9.12: Concern for Future Generations by Typology, *n*=136.
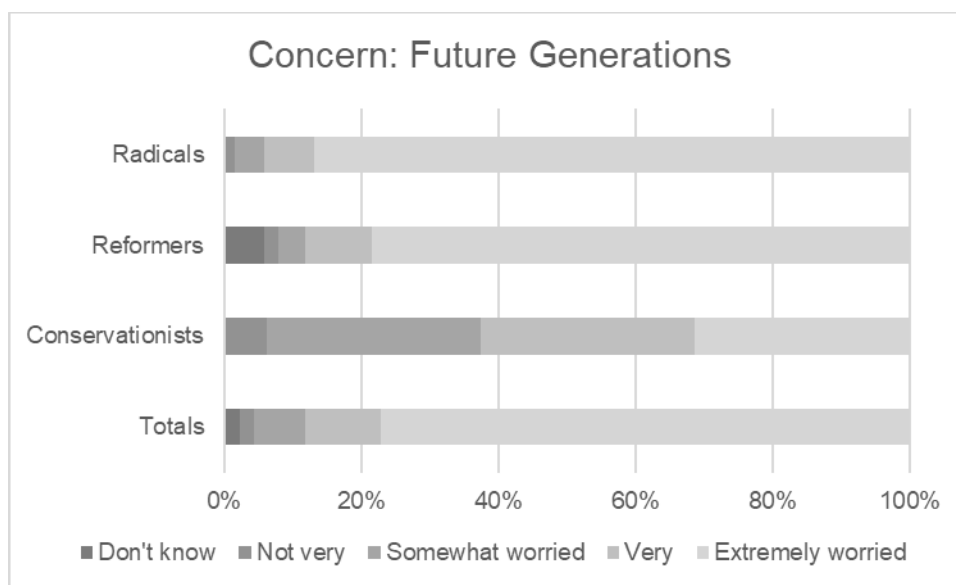
Consideration for colour and demographics within their visual materials was finally also present in the selection of images for presentation on XR Sweden's website. Here, a variety of image themes were chosen to target different audiences (Interview, 21st April 2022). This perhaps again supports access to a wider adherent pool and thus support base through a broader appeal. The image mix could therefore be conceptualised under RM to be used with the explicit intention to gain attention, donations and volunteers; with the movement group aware of this function for images.

This image choice was guided by an overarching aim to build feelings and be meaningful to a diverse audience, with the underlying idea being that website imagery should 'be a composition…like a symphony with different instruments and chords' working together (Interview, 21st April 2022). A key challenge identified by this interviewee therefore concerned communicating in such a way that visuals get people to care, before effectively turning this care into engagement (this question raised by another regarding Image Two; Interview, 28th April 2022). Certainly, a more professionalised approach towards online presence and its design has been observed among movements – climate-oriented or otherwise – and conceptualised as a 'PR-isation' which relates to the construction of brand identities for movement groups (Janotová, 2022). The latter comment perhaps reflects XR's unified colour scheme and unique illustrations discussed above which feed into a recognisable and stylistic group identity.

Having considered these points in greater length, only Image Three and Five remain to be examined. Both could be seen through the SD data to present viewers with negative frames. Coinciding with this, it was these two images which helped exert the strongest affective impact and the most positive respondent-led evaluations of image use. This points to how negative frames and their representations of Nature as threatening, worrying or similar are not necessarily too overwhelming for viewers and could support, for instance, the promotion of environmental group membership (cf. Nicholson-Cole, 2005; Rebich-Hespanha and Rice, 2016); a success for resource mobilisation strategies (McCarthy and Zald, 1977). In this way, image use-relevant data indicated that influencing viewers of these images could be possible across group types, and that this was still perceived to be the case despite respondents reporting slight feelings of discouragement at the moment of viewing.

There are potential benefits, then, to a negatively-received subject matter and/or framing. This might point to the significance of the negative imaginaries discussed by Milkoreit (2017) in which such framings depict an undesirable future and thereby incentivise action in order that it may be avoided. Indeed, Newhagen (1998; also Saunders at al. 2012) highlighted how there are different ways in which an image may be defined and received as 'negative', with varying consequences. Specifically, the author explored reactions of anger, fear and disgust within an experimental setting. Finding that anger-inducing photos resulted in more 'approach' reactions and greater memory recall around the image, Newhagen suggested that anger and fear may work to draw people in and

improve their recollection, but disgust (an avoidance reaction) deter, when exposed to different forms of negative imagery. On this basis the author drew comparisons with the wide popularity of action and horror movies with strong visual themes of anger and fear as one example of their approach rather than avoidance-producing qualities for audiences.

In this sense, general reference to 'negative' imagery as disconnecting or overwhelming for viewers loses a degree of nuance, especially where the use of this image form is suggestibly avoided in communications as a result (for example, Manzo, 2010b; Nicholson-Cole, 2005; Rebich-Hespanha and Rice, 2016). Such claims arguably miss the possibilities of galvanising action in the manner discussed not only by Newhagen (1998), but also Jasper and Poulsen (1995). Moreover, others have found that as environment-related images circulate on social media, they gradually become more negatively-themed; indicating a strength of this orientation within image communication, replication and consumption (Jones et al. 2022). In line with this research's findings, it is suggestable that movement members reflected these points insofar as they responded with the greatest affect and held higher use-related perceptions for the negatively-framed imagery presented within the survey instrument.

Image Three and Five themselves, however, remained uninformative as to what can be done to avoid the occurrence of wildfires, or mitigate against global warming. Indeed, referring once again to the content analysis, the vast majority of sampled movement imagery did not suggest practical ways to take action, and nor did they clarify where the accountability or responsibility to act lies (absent in 96 and 82 percent of the full final image sample, respectively; Chapter Seven).

Based on first-hand knowledge of Conservationist imagery, it was raised through interview how such organisations are constrained in their communications, visual or otherwise. This was described in terms of a fear that they could lose support from donors and access to governmental actors (such as through lobbying practices) should they appear too 'radical' and/or 'annoy' or alienate these groups (Interview, 28th April 2022). Resultantly, to this interviewee's mind Conservationists are not creative in their (visual) communications, with creativity held to be important to generate audience engagement. They were also felt to not be clear about the causes and solutions in the majority of their materials even though these are arguably well-known. These causes were listed to include, for instance, capitalism and wealth-generating production processes represented by large-scale industries, extending then into politics, colonialism and structural-racial

inequalities (Interview, 28th April 2022; these shared broadly with other interviewees: 21st April 2022; 9th June 2022).

Consequently, greater challenges to current and historic activities and ways of seeing Nature remain invisible within many Conservationist materials. This continues even though, as the interviewee suggested, such organisations do not know whether greater creativity and challenging statements will annoy those they fear it would since they seldom try. In the interviewee's words, Conservationists maintain within their communication strategies the desire to be seen as 'acceptable' and 'pragmatic', as opposed to being 'creative' and 'fun' (read also engaging, challenging); focusing on factual accuracy rather than accessibility (Interview, 28th April 2022).

To summarise the above, the findings of this research suggest that the polar bear icon and other images with a negative-leaning theme such as wildfires could resonate most for a wider audience; facilitating movement aims of securing resources. That said, although these images were found to be particularly effective for (movement) communications, they were not the most prominent within the full final image sample analysed through the content analysis. Instead, this was the Blue Marble which occurred in 20 percent of the sample's imagery; accounting in turn for a significant 73 percent of all icons identified in the image set. This was despite its relative ineffectiveness as a framing device and resource, as was discovered through reactions to Image Two. Contrastingly, polar bears, which in this study demonstrated an enduring frame resonance, amounted for only three percent of the full sample and 15 percent of established icons recorded. Similarly, wildfire images with their notable affective power also held little representation within the full sample when compared to the Blue Marble, being present in seven percent of all observed movement imagery.

In short, a shift in icon and frame use to generate greater resonance among a broader pool of constituents and adherents would be suggestable, extending further to the influence an image could hold over audiences after exposure. Such a shift should arguably encompass both icon choice and decisions on the orientation of framing. Considering again wildfires as a newer potential icon and based on the strength of its audience impact, this and a continued use of the polar bear in movement communications would seem to hold the greatest potential to communicate well with people and exert some influence over them, according to their reception by movement members. These images,

the data suggests, should enjoy a higher share of movement visual materials comparative to other icons like the Blue Marble which was not as well-received by respondents.

Having seen that negative frames can be more impactful, including in comparison to positive ones, the felled forest image from earlier can again be considered (Image 9.2). This image, to restate, was suggested as an alternative to Image One and was only found in one percent of the full content analysis sample (Chapter Seven). In light of the above, it would be interesting to explore further the responses that could be gained around this image. This is since the felled forest provides a direct representation of human-driven environmental destruction which would thus convey a negative frame. It may thereby hold the potential to have a greater affective impact and wider usefulness than Image One. It could also be that, to better inform viewers, a textual element like that seen in Image One could still be introduced. The text could share a similar message to the orangutan tree planting statement, but be placed in juxtaposition to the deforestation image into which it is edited. In this way, both the issue cause and response could simultaneously be presented. It may be that this would be both more informative and perhaps encouraging for viewers.

Specifically, it might avoid overwhelming viewers with too much negativity by presenting a positive response story whilst still retaining a strong focus on the causes of a nonetheless ongoing, as-yet-unstoppable challenge. The response (tree planting) could be presented as one meaningful solution which viewers could contribute to through, for instance, financial donations. That said, unlike the negatively-framed images directly used by this project, namely Images Three and Five, the felled forest substitutes a central actor with the negative event alone. The extent to which it is the negative framing itself which produces strong affect and positive use judgements, or its simultaneous use with a central human or animal figure, can therefore be asked. Based on the above findings, this would therefore seem like an interesting and important theme for future research to pursue.

Lastly, it has also been noted that responses to the images do not necessarily rest on an audience's pre-existing concern for the communicated issue, but are influenced more by frames. This would seem to open up greater possibilities to target a diverse range of (potential) adherents with carefully and somewhat negatively framed imagery. This might still be able to exert a notable affect upon targeted individuals or groups, with subsequent influence on awareness, attitudes and behaviours afterwards further remaining viable. Again, an avenue for further exploration into this theme exists

and could be relevant for environment and climate-related communication efforts with diverse audiences.

9.4 Chapter Conclusion: Image Reception

These points, like those made throughout this chapter and thesis, speak to the complex nature of the image as a communicative medium, including on the grounds of its polysemic characteristics. It results in a situation in which audience members can interpret and feel images and what they convey differently, and thus hold differing influences on their issue engagement and behaviour. The image is not a neutral medium, however, and those who produce and/or share imagery may themselves have certain meanings, identities and claims they wish to convey. To do so, framing processes can be engaged with, and of interest here were the ways and the extent to which problematic landscape constructions of Nature could be well-received by movement members. It was, for instance, already reproduced by movement actors within the content analysis alongside other key visual materials.

The images presented to participants through both the survey and supplementary interviews were drawn directly on the basis of the content analysis. Resultantly, each image reflected the core themes that emerged from the online visual communications of environmental and climate movement groups under the comparative typology devised. Doing so enabled the discussion of this chapter to consider which of these themes were the most evocative or useful, and which the least, according to group members whom these materials can target; with potential and arguably important extension to adherents who have yet to become constituents, too (Chapter Four).

To conclude this analysis, therefore, and responding to the additional question posed through the theoretical developments of this research, it would not appear that movement imagery containing Nature is engaged in an effort to re-define ideas around human-Nature relations. Nor does it seem to challenge the value structures this Eurocentric landscape construction of Nature has established as a master frame for reading, appreciating and stripping the agency of the non-human. The images collected through the earlier examination of movement communications, meanwhile, also provided insights relevant to the third and final main question of this research; namely, how rank-

and-file movement members received movement Nature imagery. Here, it was possible to identify a number of responses relatable to the frames present within this imagery.

The positive or neutral framing of Image One and Two, respectively, had comparably little affect or use according to the reactions and judgements within the data. Negative framings such as those seen with Image Three and Five, on the other hand, held a comparably significant affective power over respondents and were evaluated as the most useful images to form part of communicative efforts. Protest (Image Four) revealed a mixed affect which involved less resonance with Conservationists but more, expectedly, for Radicals. The data showed that this image had a similarly mixed yet fairly good usefulness on the whole, especially to promote participation in protest. This might have been an artefact from the image's subject, and how it shows one form of practical action viewers can take around issues of concern. Finally, Image Six through its landscape scene was found to have a significant positive affect, arguably relatable to a cultural learning and internalisation of landscape by respondents, but the image remained of little use.

Therefore, the data indicated that while protest imagery is good for protest, positive or neutral framings are not necessarily influential while negative framing was the strongest and most useful. In this way, it was not found to be overwhelming enough to be detrimental to its influence on actions, nor less effective than positive imagery. This finding was then roughly in line with that of Jasper and Poulsen (1995) who detailed the pull, resonance and subsequent recruitment potential of negative imagery, as well as of Milkoreit (2017) on dystopic imaginaries (also Newhagen, 1998; further, Interview, 14th July 2022). This finding would therefore appear to run counter to some of the ideas found within previous studies which suggested that negative imagery is best avoided in favour of positive imagery (for instance, Aklin and Urpelainen, 2013; Manzo, 2010b; McNally and De Andrade, 2022; Nicholson-Cole, 2005; Rebich-Hespanha and Rice, 2016; although not all positive imagery has been found to be motivational, especially 'solutions' images; see Chapman et al. 2016 and Box 3.6, Chapter Three).

The limited perceived use and affect of positive images found here thus contrasted sharply with other climate or environmental imagery studies, including that of McNally and De Andrade (2022) as one example. These findings could nonetheless reflect differences in the projects themselves, however. For the present study, younger people were not admitted into the survey nor interview stages following the ethical exclusion of Demonstrative Outsiders (Chapter Six). The potential for

contrast between members of this movement group type against those against Conservationists, Reformers and Radicals could therefore be an interesting line of study for future projects.

Certainly, the content analysis suggested some differences in image selection for Demonstrative Outsiders; this type sharing the most Blue Marble imagery. Perhaps the perspectives expressed around this icon would differ from those collected in relation to Image Two. As the main logo for FFF, it could be that younger people associate the image of the Earth from space with empowerment and hope through protest and collective identity or demands. Put differently, there could be an alternative perspective among Demonstrative Outsiders vis-à-vis the other group types which could include the closer human-Nature organisation of space found by McNally and De Andrade (2022).

That said, it could be asked how far the online reimagining of human-Nature relations and proximities studied by McNally and De Andrade (2022) are lived out in the offline realm. Indeed, interactions with online worlds do not necessarily equate to offline practices and identities. Relatedly, it could be argued that video games like that which they studied uniquely provide a freedom to assume other identities and pursue different activity forms as part of an escapism which remains detached and juxtaposed against participant ideas and practice once devices are switched off. These points perhaps represent additionally interesting areas for future study which could build directly from this project and that of McNally and De Andrade (2022). This could be especially the case under a similar comparative perspective employed by the study at hand.

Focusing upon the medium also, there are perhaps limits to the reach and visual appeal of images collected from the worlds constructed within video games. This could reflect both demographic (generational) differences extending to the game's target audience, as well as the nature of the game's graphics which can be heavily pixilated and perhaps unclear to non-players such as those seen in McNally and De Andrade's (2022) study. Lastly, the location of these positive human-Nature relations in online settings may reflect wider discussions around climate imagery and how they can produce a sense of detachment in their abstractness from viewers' lived realities and experiences (Duan et al. 2017; also Aklin and Urpelainen, 2013); although localness was not found to be necessarily important to image reception among survey respondents across group types.

The absence of references to the negative alternatives of idealised online worlds could also invite viewers and participants to adopt a passivity within their engagement, including through sharing

leisure time in the manner reported by McNally and De Andrade (2022). Indeed, clean, prettified and unchallenging (online) worlds may conversely open up the possibilities for an appreciation of these spaces for their construction of idyllic peace and escapism akin to landscape's valuing of Nature along similar lines. These are perhaps areas suitable – and important – for further reflection and visual climate studies.

The landscape image, lastly, was suggested by the data to not be useful within communication strategies concerning its possible influence after achieving the resonance it did across the group types. More than this, the manner in which it was well-received by respondents irrespective of group type differences underlined the persistence of a Eurocentric landscape construction of Nature.

There were perhaps also traces of landscape in the reading of other images, too. Specifically, Image Three (polar bear) served as an arguably good example of this. Here, for instance, there was a negative feeling in response to the commonly associated global warming frame. However, despite the existence of this frame and respondent's interpretation of the image through this – as indicated by image feeling results – Image Three was nonetheless judged to be highly beautiful. Put differently, image viewers perceived the threat and vulnerability offered by the negative framing bound to the polar bear climate icon, but there was still a tendency to see, evaluate and perhaps value this image on the grounds of its visual aesthetic appeal; akin to landscape.

As discussed throughout this research, such a landscape representation or perspective of Nature can be deemed problematic including for issue identification and visibility, as well as their underlying human causes. In short, it can situate people into a detached, subject-object and possibly exploitative relationship with Nature in which the agency of others – human or otherwise – is equally not seen. This persistence remained among movement imagery and members regardless of group type, and thus crossed a variety of demands, activities and levels of radicality and institutionalisation. In turn, it remains difficult to identify how and where such a cultural construction of Nature could be challenged and a newer conception of human-Nature relations centring interconnected agencies established in its place. Without this alternative valuing, the question of the continued objectification and externalisation of Nature, and thus also of its continued exploitation and degradation by people, remains unresolved. This could be particularly

troubling in this time of increasingly pronounced climatic changes and environmental harms which are experienced jointly by both Nature and society.

Having now answered the third main research question of this project, as well as the theory-derived query, a formal conclusion to this research will now be made. Drawing upon the data and findings from present and previous chapters, this addresses each of the research questions posed by the project at hand. At the same time, perceived avenues for future research aimed at filling literature gaps with studies on images and Nature, and/or images and social movements, are indicated. It is to this closing chapter to which attention is lastly turned.

Chapter Ten: Concluding Remarks

10.1 Introduction

By way of conclusion, therefore, this study sought to examine how Nature has been visually constructed and communicated within the environmental and climate movement. In so doing, three interlinking questions were posed, namely: *what representations of Nature are communicated by environmental and climate movement imagery*? *How far are these image themes shared across movement group types*? And, *how is movement Nature imagery received by rank-and-file movement members*? With their focus building from the group to the individual-level of analysis, they were designed to address a visual studies gap within existing social movement and climate literatures; something that has been called for by others (for instance, McGarry et al. 2019; Chapter Three). Responses to these questions are presented below.

Beforehand, however, it is worth restating that 'Nature' was defined and understood in a broad manner to allow for movement visualisations of the natural environment to speak for themselves without being pre-judged as 'valid' visual constructions or not. This decision was based partly upon the characteristics of the image as a non-neutral, polysemic and potentially evocative communication medium in which themes of presence and absence can play an important part in meaning construction and recognition. It should also be noted that 'movement' was defined broadly along the lines of Diani (1992), with key features including networked interactions, conflict over social or political issues and a collective identity.

Holding these questions and definitions in mind, the Enlightenment era-derived cultural construction of Nature as landscape was additionally examined. It was proposed not only as the dominant master frame concerning Nature within the Western/European case countries, but also as a means through which to critically explore the extent movement imagery may reproduce and/or challenge this landscape perspective. Landscape was here understood as an arguably problematic framing of Nature through its detached, cognitive (aesthetic) appraisal of an externalised object which limits possibilities for knowing, engaging and valuing the non-human (with colonial overtones also; see Brígido-Corachán, 2017; Cronon, 1996; wider, Gandy, 2016; Wylie, 2007). It

was suggested that in contexts where landscape is historically embedded, movements may thus seek to counter this master frame; including in the UK, Netherlands and Sweden.

Resultantly, it was proposed that movement frames could speak to Latour's New Climatic Regime idea involving the need for reconceptualised human-Nature relations beyond landscape dualisms (Latour, 2008a, 2014; 2018; Latour et al. 2018). In so doing, engagement in Touraine's (1980, 1985) social conflicts over cultural resources and patterns (as knowledge, investment and ethics), as well as non-fully negotiable issues, may be possible. This led to further question development, asking *to what extent could the cultural construction of Nature as 'landscape' appear to be reproduced within the movement*? Social movement theory's conceptualisations of framing were thereby important, and Resource Mobilisation additionally useful for defining the image's position within movement communication practices with images here including photographs, illustrations, cartoons and memes.

These themes were investigated through a multi-method research design involving three core stages. First, a content analysis was undertaken to investigate what representations of Nature – broadly defined – were produced and shared by environmental and climate movement actors; these identified through a typology based upon the social movement literature. This typology centred a comparative element within this research, focusing on four group types which held potentially different image and Nature perspectives according to their organisational and activity features. These features were groups' degrees of institutionalisation and radicalism, respectively. The resulting types were: Conservationists; Radicals; Reformers; and, Demonstrative Outsiders (Chapter Five).

Using groups' social media as important communicative channels for Nature image diffusion, Twitter and Instagram were subject to targeted data collection. Consequently, an image bank of *n*=724 images containing Nature was constructed from which pilot (*n*=48) and final full samples (*n*=144) were drawn. Inductively coding images in the pilot and applying them to the latter returned a number of key themes, including those which spoke to existing literature discussions. It was from this that the six images well-reflecting these core themes in movement visual representation of Nature were selected for use in the later project stages. Through the above, the first two research questions began to be addressed; namely about what visual representations are present within movement visuals and how far identified themes are shared across different

movement group types. It also began building towards insights into the reproduction or challenging of the arguably problematic landscape construction of Nature, in line with the theoretically-informed query presented first in Chapter Four.

This was followed by the development of an original survey instrument in which the chosen images reflecting core content analysis and literature themes were embedded. The survey contained a number of questions on demographics, activist histories and issue concerns. Those focused directly upon the images attempted to understand movement member receptions to them regarding how they perceived Nature's representation and how that made them feel. In this, Osgood's (1952, 1979) semantic differential was drawn upon alongside factor analysis and ANOVA. The total survey sample size was $n=137$ with a response rate in-keeping with comparable movement literature; standing at 23 percent.

The survey component therefore aimed to answer the third research question concerning the individual-level reception to movement Nature imagery. This was true also of the semi-structured photo-elicitation interviews undertaken as a source of supplementary data complimenting the main survey analysis; with both presented simultaneously throughout the preceding chapter. These interviews ($n=8$) were held online with movement group organisers, design team members and those with expertise in environmental images and framing practices.

In short, the project utilised a multi-method approach to investigate the production and reception of Nature imagery under a comparative group typology perspective. It did so through a visual-focused content analysis, survey and interviews; drawing also upon social movement and geography literatures. This enabled an understanding of movement imagery as resources and framing tools which hold the potential to replicate or challenge a problematic yet dominant Eurocentric cultural rendering of Nature as landscape. In this way, classic approaches to social movements were adopted yet expanded explicitly into the visual field, thereby representing a more novel contribution to the literature. It outlined possible future directions research could take to address existing gaps in knowledge through greater attention to visual movement studies.

10.2 Central Findings

Under such an approach, a number of image themes were found through the content analysis which indicated how Nature and associated challenges were – or were not – visually framed. In Chapter Seven, these themes referred to: the use of text; the absence of accountability and action guidance information; the reproduction of a landscape lens; icons including the Blue Marble and polar bear, and a potentially new synecdochic frame of wildfire; as well as a note on the typology underlying the analysis. Together, they represented a response to the first research question; and this is now considered. The other questions will be considered in turn.

10.2.1 What Representations of Nature are Communicated by Environmental and Climate Movement Imagery?

To elaborate, therefore, the content analysis found that text was common within Nature-related imagery (in 65 percent of the final sample's images), both where it has been captured directly within the scene or edited-in later. This raised questions around the image's power to construct meaning and Nature's use as a passive or, at least, non-dominant element within imagery vis-à-vis the central position granted textual elements. This extended to the influence text had upon the temporality of the image and the possible readings it produced or guided, including through turning scenes of ongoing or past disasters into portents for future events preferably avoided through action in the now.

On this basis it was discussed how text and image could be brought into a more complimentary, equal relationship within an image whereby it builds explicitly from the visual representation of Nature. This would mark a break from its position as a dominating element leading the construction of meaning in a context where the image could remain a powerful, complex and evocative communicative phenomena in its own right. This revised image-text relation was also suggested to address one concern from the climate image literature; namely, that negatively-framed imagery could be too overwhelming and thus disempowering or demotivating for viewers.

Here, complimentary textual elements could provide audiences with clear, concise ideas around how they could effectively support responses to present disasters and environmental degradation, or indicate means to avoid their reoccurrence. This was put in terms of directing the strong

emotional impact (or possible 'moral shock'; Jasper and Poulsen, 1995) of negatively themed images of threat and vulnerability – present in a significant 33 percent of the final sample – into meaningful action rather than leaving viewers feeling that their actions would lack meaning against urgent, large-scale challenges (as a 'drop in the ocean'; Manzo, 2010b:203).

However, this text-relevant discussion emergent from the content analysis linked into further important and related points concerning absence. Specifically, this referred to the absence of information around where accountability and responsibility lay for depicted issues, as well as to guidance regarding actions that could be taken to mitigate against them. These were absent in 82 and 96 percent of the final sample, respectively.

Relating to aforementioned suggestions, their inclusion may assist in addressing viewers' potential discouragement or feelings that issues are irrelevant, distant or disinteresting to their everyday lived experiences. This could particularly be relevant for negative imagery, but also visual materials with positive and success-based framings which, conversely, may make viewers feel that there is limited need for their participation and engagement on environmental and climate issues when others are already achieving the successes depicted. In such cases, text underlining not only success but also requirements for audience contributions behind positive outcomes, and those needed in the future, may beneficially inform and inspire viewers. These comments may be most relevant to Image One (orangutan conservation).

The use of text containing such information as an extension upon the central visual theme and message of an image could also help in the construction of a master frame counter to that of landscape. It could do so by challenging viewers about their thoughts, actions and values towards Nature, including its longstanding cultural construction as an externalised, neutral object to value for use and exploitation, and/or for visual aesthetic appeal. Doing so may re-imagine human-Nature relations, surpassing dualistic notions and promoting the idea of deeper interconnectivities.

Indeed, this leads onto a third theme identified concerning how each group type, and particularly Conservationists, shared images relatable to landscape constructions of Nature. This was understood through, for example, codes reflecting cleanliness seen in 33 percent of the final sample, or scenes highlighting Nature's aesthetic beauty (13 percent). This landscape-esque construction of Nature could be seen to invite passive, detached relations to and understandings of

Nature which maintain dualistic value structures based on cognitive-aesthetic appraisal and/or resource exploitation.

While expected from Conservationists based on greater degrees of institutionalisation and lesser radicalism, how the other group types similarly shared Nature constructed through this lens was highlighted as an important finding. Here, doubts could be raised around whether and to what extent movement actors may be engaged in challenging the problematic landscape construction of Nature; even among Radicals which call for urgent action against climate and ecological breakdown. If any typology group would be expected to attempt re-definitions of Nature and people's relations towards it beyond detachment and exploitation, then it was these less institutionalised and more radical groups. They nonetheless partook in the sharing of beautiful, clean and, perhaps critically, unchallenging scenes of Nature.

There is an argument that adopting and reproducing Nature as landscape could itself be used to challenge this cultural framing, including through using these images which are appealing and eye-catching to a wider non-movement audience. This could be linked to frame extension with audiences subsequently directed towards the concerns, goals and activities of movement groups and the issues around which they mobilise that may threaten the idyllic and preferred Nature presented by such images, for example. Movement group concerns may thus resonate with a wider pool of possible constituents.

That said, and in the absence of explicit guidance around responsibilities and the actions audiences can take, the presence of this framing which uses landscape's cultural appeal and embeddedness to raise concerns perhaps remained unseen. Discussed in Chapter Seven, this spoke further to the theoretical enquiry of Chapter Four concerning challenges to the dualistic landscape master frame and a shift away from the New Climatic Regime reflected upon by Latour (Latour, 2018; Latour et al. 2018). This is revisited in greater depth later in this chapter.

Other notable Nature representations, meanwhile, reflected climate 'icons' as classic images with synecdochic (denotative) functions for environmental and climate challenges. These have been the concern of many existing visual studies of climate change (amongst others, O'Neill, 2019; Rebich-Hespanha and Rice, 2016). Chief among the icons within the final content analysis sample was the Blue Marble photograph of the Earth from space, or variants thereof. Accounting for 73 percent of all recorded icons, this largely reflected its adoption as Fridays for Future's central logo; the

group here representing the Demonstrative Outsider type. This image, however, would not necessarily be the most effective visual for the movement to use in general given possible detachment and distance from people's everyday lives and behaviours.

Of additional interest, therefore, was the relative absence of other icons; particularly of the polar bear which is one of the most recognisable synecdoche images for global warming, and one subject to much literature attention (including Manzo, 2010b). However, the polar bear only occurred in four percent of the full final sample; an infrequently used icon. Following literature suggestions about polar bear overuse and co-option for counter-framing by climate sceptics (Chapman et al. 2016), this image might not resonate as it perhaps once did with viewers. This icon's absence may thus be understood as beneficial to movement communications. That said, survey findings presented later would question some of these literature suggestions.

How far this central iconic image's relative absence was attributable to issue-attention cycles, however, remains open. This could be suggested based on the greater frequency of wildfire imagery; reflecting ongoing disasters during the data collection period where fires in both Australia and the US – similar Western contexts to those of study groups – received notable mainstream media attention. In this sense, movement groups' higher usage of wildfire imagery could have been purposeful to tap into public concerns and, through this, communicate their claims and objectives to an engaged audience. This could have formed part of an issue-attention-related framing, making use of wildfires as a resource to raise awareness of the group to gain supporters by underlining the significance and immediacy of events they campaign around.

Relevant to themes of threat and vulnerability within visual representations of Nature, wildfires accounted for seven percent of the full final sample. It was argued, based on this share of movement imagery and how the fires can refer to climate change as the overarching issue, that wildfires may be a new icon within movement visual communications of Nature. Certainly, it has not been counted among the iconic imagery examined by prior studies (O'Neill, 2019; Rebich-Hespanha and Rice, 2016).

10.2.2 How Far are These Image Themes Shared across Movement Group Types?

The second question, meanwhile, developed from the first but asked specifically about the appearance of these core visual themes across the studied movement groups. Consequently, the typology developed in Chapter Five and grounded in social movement literature became central. Focusing upon this comparative lens, the assumptions and expectations that it informed seemed to be well-reflected by content analysis findings. For instance, the idea that Conservationists visually construct Nature more in terms of conservation issues and that this would not form a prominent focus for Radicals (Chapter Seven).

Moreover, protest was expected to appear most among image samples from those typology categories with the highest degrees of radicalism; particularly Radicals. It was by extension expected that Conservationists would not share this focus. These expectations were also among those met. To recall, a conservation focus accounted for 12 percent of the final sample overall, and protest 20 percent.

In short, observable differences appeared in the visual themes communicated by case group types through both Twitter and Instagram. This finding was thus largely in line with typology expectations according to degrees of institutionalisation vis-à-vis radicalism. On this basis, claims that Conservationists may diverge enough from other environmental and climate-oriented groups that they could be considered as existing outside of the 'movement' were supported.

As Chapter Five noted, they do not undertake the same forms of action like the other three group types, and nor do they engage in processes of identity creation which produces a shared sense of self defined against an 'other' as target or opponent (for example, Saunders, 2007a). By extension, Conservationists would not qualify as part of a movement according to Touraine's criteria. As just stated, these were the definition of self, other and of the issue over which actors stake a claim (Touraine, 1985, 2000, 2002). Reference could also be made to Diani's classic definition of a movement as a 'network of informal interactions between a plurality of individuals, groups and/or organizations, engaged in a political or cultural conflict, on the basis of shared collective identity' (Diani, 1992:13; Chapter Four). The conflictual aspect would again be seemingly missing from Conservationists based on their higher institutionalised yet lesser radicalised characteristics.

Nevertheless, the opinion that they provide potentially interesting and relevant points of comparison against other group types was maintained since a shared focus and care for the environment remains in general. Certainly, through the group typology understandings of how Nature has been visually constructed were benefitted. It subsequently facilitated analyses of key areas of congruence, divergence and their possible consequences among different movement groups. This included explorations of whether and to what extent movement actors could be involved in either the reproduction or challenging of existing cultural constructions of Nature; and, specifically, of problematic landscape notions.

Here, Conservationists were expected to use landscape-related constructions the most based on their typology position. Through contrast and with an alternative focus upon urgent action to address the ecological and climate emergency, any landscape reproduction or attempts to challenge it by Radicals was expected to be more keenly highlighted given their situation at opposite ends of the typology. This shall be dealt with later, following consideration of the third main research question which shifted attention from the group to the individual level of analysis.

10.2.3 How is Movement Nature Imagery Received by Rank-and-File Movement Members?

This third question, therefore, centred upon the reception of movement imagery of Nature. This concerned how the presentation of Nature was perceived, how it made respondents feel as a result and how they then judged the potential usefulness of the image (Chapter Nine; Appendix Nine). These reactions to the images will now be considered.

To begin, Image Four (protest) was seen to be good for encouraging protest participation but, given lower radicalism, not preferred by Conservationists. For others, this image theme was powerful, inspiring and served as a representation of people power and democracy (Interview, 7th October 2022a; also Krause and Bucy, 2018; on changing media frames for protest, Hayes and O'Neill, 2021; cf. Chapman et al. 2016). As such, although the Nature representation was received in an ambivalent manner perhaps due to the largely urbanised setting, the resulting feelings were mixed with more encouragement and interest for Radicals and Reformers, but consistently negative feelings for Conservationists. In line with typology expectations, Radicals expressed the most

positive feelings and highest image use judgements followed by Reformers and then, with a negative perspective overall, Conservationists.

Meanwhile, images with a direct theme of threat and vulnerability (Image Five, wildfire), or otherwise closely associated with it (Image Three, polar bear), were the most emotionally evocative in a negative manner, yet also the most widely useful images. This thereby underlined a general linkage between emotionally powerful imagery of a negative orientation and possibilities for influencing attitudes and behaviours as a result, including protest action involvement (also, Jasper and Poulsen, 1995). Here, the polar bear icon was deemed to be highly useful across the different categories presented to respondents, but slightly less well-judged by Conservationists. Scores for each category were consistently high for Radicals and Reformers. The wildfire image produced similar image feelings to the polar bear but a more negative Nature representation was perceived without Image Three's beauty and cleanliness. Image use was similar to Image Three's results also, and similarities for this and the semantic differential data were shared across group types indicating a greater degree of consistency and audience impact for these negatively-themed images, despite audience differences.

This contrasted to the other images which were received differently according to group type, including protest which was most positively received by Radicals and least by Conservationists. Reformers also saw potential in The Blue Marble (below) despite it being less effective according to others, for example. The results for negatively-framed imagery also differed from images which, although presenting congruent results across all group types like with Image Three and Five, were alternatively judged to be less useful (namely, Image One and Six).

As indicated, positively-framed images (Image One, orangutan) were contrarily perceived in a largely positive light regarding Nature presentation, but lacked emotional salience. Nonetheless, some limited usefulness for catching people's eye, raising awareness and promoting group membership was shared across group types. With an arguably ambiguous or neutral framing, Image Two (Blue Marble) was received similarly to that with a more directly positive message. Specifically, participants responded positively for Nature representation but with little emotion evoked.

The difference here, however, was in how the Blue Marble much used by Demonstrative Outsiders was attributed less usefulness than Image One. On aggregate across groups, the only use category

chosen by over half of respondents was the ability to catch people's eye. It was comparably better received by Reformers and this could perhaps reflect an interviewee's perspective, with this image reflecting how things can and should be (Interview, 7th October 2022b). This individual was the only interviewee to discuss Image One in this positive manner, however (cf., for instance, Interview, 24th April 2022; Interview, 7th October 2022a).

Lastly, reactions to a beautified, idyllic Nature (Image Six, landscape) were the most strongly positive regarding Nature representation and subsequent feelings; far more so than with Image One. Contrarily, it was judged to be the least useful of the presented images with no categories seen to be feasible on aggregate and by each individual group type. Given this image was chosen specifically to reflect a landscape construction of Nature in line with theory, literature and content analysis findings, this will be considered more in the following section concerning landscape lens reproduction within movement visuals.

These findings therefore bear direct relevance to Resource Mobilisation (Chapter Four). They indicated how communication with constituents or, for gaining access to new resource pools, adherents, may be best targeted with visuals. To recall, constituents are those already involved in movement groups, contributing resources like time, money and expertise to their group. Adherents, meanwhile, are non-members who are nevertheless sympathetic to a movement group's cause and may thus be potential members (McCarthy and Zald, 1977). This was one of the benefits of a focus upon movement members for data collection and future studies can meaningfully extend upon the findings of this research to investigate more closely adherent, wider public or other specific societal group responses in terms of Nature representation, image feeling and image use.

For Reformers and Radicals, protest may work well as an inspiring, powerful symbol. For Conservationist members and group adherents, however, protest may discourage engagement; an image theme to consequently avoid when trying to access Conservationists for group goals. For Demonstrative Outsiders, the content analysis indicated that the Blue Marble could potentially hold greater meaning for members and collective sentiments of 'us', the planet and the challenges mutually shared. This type of image, however, would not be useful if the target audiences for movement actors relate to the other group types with a slight exception possible for Reformers based on the data. Instead, the polar bear may serve as a more effective icon despite suggestions to the contrary (for instance, Chapman et al. 2016; Manzo, 2010b).

Like Image Two, a blanket ineffectiveness in speaking to or inspiring people was seen for Nature-as-landscape scenes. Image Six and related imagery would be arguably unsuitable as tools under an RM perspective as a result. The conservation issue theme was also similarly received across groups and, while effectiveness was limited overall, there could be a chance to raise awareness and promote membership through images such as Image One. Interestingly, and perhaps reflecting different levels of familiarity and exposure to visual conservation themes, Image One could realise these potential uses to a greater extent with Radicals and Reformers, but less so with Conservationists whose groups most frequently share this kind of image. This latter result was slightly unexpected and should therefore be borne in mind by movement groups should their target audience be associated with Conservationists. Having now considered each image regarding their reception at the individual level, one particular theme will be explored further; namely, landscape.

10.2.4 To What Extent could the Cultural Construction of Nature as 'Landscape' Appear to be Reproduced within the Movement?

Based upon theory and literature, an additional question was posed concerning the reproduction or challenging of 'landscape'; the Eurocentric cultural construction of Nature which narrows people's possible engagement with and valuing of Nature in various – arguably detrimental – ways.

As noted regarding RQ.1, Nature imagery with themes relatable to cleanliness and aesthetic beauty, for instance, was often found among the image sample. Image Six well reflected this and was subsequently used in both the survey and interview stages. In this sense, the response to the theory-based question could be that landscape was reproduced within movement group communications. Consequently, this indicated that an objectified, externalised view of Nature was still adopted within the environmental and climate movement with potential repercussions for the possibilities of re-evaluating problematic human-Nature relations.

However, the content analysis was purposefully complemented by additional data so that the understandings of images and their affects or influences could be explored in greater depth. It was found through this that survey respondents from across groups perceived the landscape representation of Nature and related feelings in positive ways. At the same time, however, Image Six was not judged to have much use or influence over viewers; the least of all presented images.

This suggested that landscape constructions of Nature can invite passive or unchallenging readings of the environment even among those most concerned with environmental and climate breakdown, and whom could be expected to continue to perceive these challenges even in idyllic scenes (similarly to Interview, 28th April 2022; Chapter Nine). The latter would have been expected mainly for Radicals followed by Reformers, but not Conservationists for reasons discussed at length previously.

This pointed towards the continued prevalence of a Eurocentric landscape view and valuing of Nature which could constrain possibilities to experience and imagine new, closer relations between humans and Nature. Although this image still held the potential to evoke ideas of what should be, serving as an idealised target for realisation through actions in the present (as with Interview, 14th July 2022), it was commonly seen for its beauty and limited usefulness to inspire action, inform debate and similar.

Relatedly, within the image bank there were no discernible attempts to visually construct alternative relations, proximities and embodied practices with Nature in the manner discussed recently by McNally and De Andrade (2022). The idea of a greater closeness to Nature based on new values and norms was therefore absent from movement imagery (SEI and CEEW, 2022). These were postulated within Chapter Four to be possible ways in which human-Nature relations may be reframed in challenge to constructions of Nature in dualistic and detached manners, including visually through the use of images as master framing tools.

Consequently, in their absence and combined with positive yet passive receptions of Image Six's Nature, it is suggested that landscape constructions are not only reproduced within movement imagery as per the content analysis, but that this lens also persists when such images are received at the individual level by movement members. This could limit possibilities to imagine and achieve alternative, less destructive modes of conceptualising and experiencing Nature as part of a more interconnected existence. It would perhaps be from such efforts that alternatives to Latour's New Climatic Regime could begin to take shape through the recognition of mutual interdependencies and agency between society and Nature. With the above in mind, concluding remarks will be offered.

10.3 Closing Remarks

The image is polysemic, certainly, and so no absolute prescriptions for 'effective' or 'affective' imagery can be provided. However, average responses for how people read, feel and judge imagery and its potentials could nevertheless provide important insights into how certain image themes and framings are most commonly received by audiences. To this end, the visual survey designed and utilised for the present project has indicated that positive imagery may be limited in its affective and influencing qualities overall, while protest, conservation and Blue Marble icon visuals may have different affects according to different movement group types. Negative imagery, meanwhile, helped produce within participants strong emotional affects whilst also being considered the most useful for a range of purposes. This runs contrary to previous research's findings which suggested that negative imagery should on the whole be avoided and possibly substituted for more positive and relatable scenes, alongside claims that the polar bear's power has been significantly diminished (variously, Aklin and Urpelainen, 2013; Manzo, 2010b; Nicholson-Cole, 2005; O'Neill et al. 2015; Rebich-Hespanha and Rice, 2016).

Based on the findings of this present research and recalling earlier work by Jasper and Poulsen (1995; also Milkoreit, 2017; Newhagen, 1998), it could be suggested that greater focus be placed on unpacking negativity as a possibly and generally affective communication medium regarding environmental and related challenges. Existing studies, moreover, have tended to focus upon exploring mainstream media stories about environmental and climate-related events, including disasters and protests (for example, Hayes and O'Neill, 2021; O'Neill, 2019; Rebich-Hespanha and Rice, 2016), but these are far from the only important sources of visual communication and reception to consider. Indeed, in line with more recent calls for visual analyses in social movement studies from McGarry et al. (2019), a focus upon movement actors and their visuals would seem to be warranted. This concerns both movement groups' image production and sharing, as well as member reception of visual materials which offer possibilities to capture attention and promote protest participation through the emotional salience of their negative frames. This could be for both existing movement members as well as adherents (for the latter, Jasper and Poulsen, 1995).

This research therefore provided a first step in this direction. Further additional steps could include extending the scope beyond the common attention given to Western and European contexts. In so doing, projects should incorporate different cultural, political and social areas to gain greater, more

holistic understandings of the themes of interest in a context where research often falls into a broadly Eurocentric examination of important phenomena. In this way, emphasis could be placed upon cross-country comparisons, including between non-Western/European contexts either by themselves or in relation to countries in the West. This could help address aforementioned literature gaps and decolonise research.

It could also enable further landscape frame queries which may be important to unpack human-Nature relations and associated degradation or value structures where it exists as a cultural master frame. Such an expansion would thereby acknowledge how culture and subjectivities can be different outside of the West (Rebughini, 2014), whilst potentially identifying overlooked indigenous knowledges regarding human-Nature relations and mutually beneficial practices or values (Brígido-Corachán, 2017; SEI and CEEW, 2022).

A meaningful extension of the literature could also be made by moving beyond the prevalence of Twitter-only studies with the understanding that different social media platforms are used in different ways by different actors; influenced by the affordances and means of interaction available (Fownes et al. 2018; Pearce et al. 2019, 2020). As such, detailed consideration should be given to other platforms to render new insights and reduce the Twitter bias currently present within social science literature. For visual studies, Instagram may be particularly beneficial as an explicitly image-centred and popular platform.

The study of videos as another visual communication medium and potential means of framing self, others and issues would be additionally insightful. It would make a unique contribution to existing literatures centred on climate images, movement imagery or, indeed, the intersection between them. Colour could be another relevant yet currently underdeveloped avenue of interest around these themes as well. Future work may thus wish to explore the emotional valence of colours and their influence on the reception of visuals focused upon the environment and climate change, whether produced by movement groups or others (Jonauskaite et al. 2019; Kawai et al. 2020). In pursuing research along one or all of the aforementioned lines, scholars could make what are novel, constructive and valuable contributions to the literature surrounding movements, climate change, Nature and the visual; helping to address further the gaps which currently exist. Such work would seem truly important.

Appendix One: Selected Case Groups by Typology and Country

Table: Case Groups by Typology and Country, *n*=20.

	United Kingdom	Netherlands	Sweden
Conservationists	National Trust; WWF UK	Natuurmonumenten; WWF Netherlands	Naturskyddsföreningen; WWF Sweden
Reformers	Greenpeace UK; Friends of the Earth UK	Greenpeace Netherlands; Milieudefensie (FoE Netherlands)	Greenpeace Sweden; Jordens Vänner (FoE Sweden)
Radicals	Earth First!; Extinction Rebellion UK	Groen Front! (EF! Netherlands); Extinction Rebellion Netherlands	Extinction Rebellion Sweden
Demonstrative Outsiders	UK Student Climate Network	Fridays for Future Netherlands	Fridays for Future Sweden

Appendix Two: Python Script

Script used to interrogate Twitter's standard API with Python 3.7 and Tweepy, organised in Jupyter Notebook (v.6.0.3).

```
In [ ]:  ### Accessing API ###

         # Use Tweepy
         pip install tweepy

         # API access
         import tweepy as tw

         CONSUMER_KEY        = '...'
         CONSUMER_KEY_SECRET = '...'
         ACCESS_TOKEN        = '...'
         ACCESS_TOKEN_SECRET = '...'

         auth = tw.OAuthHandler(CONSUMER_KEY, CONSUMER_KEY_SECRET)
         auth.set_access_token(ACCESS_TOKEN, ACCESS_TOKEN_SECRET)

         api = tw.API(auth)
         print(api)
```

```
In [ ]:  ### Recording Basic User Information ###

         import json

         # [Group under Study]:
         user_info = api.get_user(screen_name = '@...')
         print("Account description:", user_info.description)
         print("Followers:", user_info.followers_count)

         F_NAME = '..._UK.json'
         with open(F_NAME,'w') as f_out:
             json.dump(user_info._json, f_out)

         # [Repeated for each group in the same cell, changing
             # only Twitter handles and JSON file names]
```

```
In [ ]:  ### Collecting Tweets with Media Contained ###

         # [Group under Study]:
         search = api.user_timeline(screen_name = '@...', count = 200,
                                    include_rts = True,
                                    exclude_replies = True,
                                    result_type = 'recent',
                                    filter = 'media')

         F_NAME = '....json'
         with open(F_NAME,'w') as f_out:
             for status in search:
                 json.dump(status._json, f_out)
                 f_out.write('\n')

         # [Repeated for each group in different cells,
             # changing file names after to indicate date
             # and time of collection (and to avoid potentail
             # for collected data to be inadvertently overwritten)]
```

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Appendix Three: Final Coding Schema (Full)

Primary Code	Sub-Code	Quality	Value (numeric)		
Format	*Form*	Still photo	0		
		Cartoon	1		
		Illustration	2		
		Meme	3		
		Mixed	4		
		Unclear	5		
Chromatic	*Colour*	B&W	0		
		Colour	1		
		Mixed	2		
	Naturalness	Unnatural	0		
		Natural	1		
Camera	*Distance*	Close	0		
		Distant	1		
		Mixed	2		
		Not applicable	.a		
	Level	No	0		
		Yes	1		
		Not applicable	.a		
Text	*Present*	No	0		
		Yes	1		
		[Additional >]	*Central*	No	0
				Yes	1
				Not applicable	.a
			Bold, Capitals	No	0
				Yes	1
				Not applicable	.a
			Affordances	No	0

				Yes	1	
				Not applicable	.a	
		Language		English	0	
				Dutch	1	
				Swedish	2	
				Mixed	3	
				Not applicable	.a	
		Edited in		No	0	
				Yes	1	
				Not applicable	.a	
Location	*Setting*	Urban	0			
		Rural	1			
		Coastal	2			
		Forest	3			
		Underwater	4			
		Other	5			
		Unclear	6			
		Not applicable	.a			
Tense	*Time*	Past	0			
		Present	1			
		Future	2			
		Mixed	3			
		[*Additional >*]	*Future*	Dystopic	0	
				Utopic	1	
				Neither	2	
				Not applicable	.a	
Moral Shock	*Present*	No	0			
		Yes	1			
Action Guidance	*Present*	No	0			
		Yes	1			

Icon	Present	No		0		
		Yes		1		
		[*Additional >*]	*Form*	Smokestacks	0	
				Blue Marble	1	
				Dry, cracked land	2	
				Polar bear	3	
				Mixed	4	
				Glacial melt	5	
				Not applicable	.a	
Industry	*Present*	No		0		
		Yes		1		
		[*Additional >*]	*Main focus*	No	0	
				Yes	1	
				Not applicable	.a	
			Foreground	No	0	
				Yes	1	
				Not applicable	.a	
			Form	Fossil fuel and extractives	0	
				Agriculture	1	
				Aviation	2	
				Not applicable	.a	
Animals	*Present*	No		0		
		Yes		1		
		[*Additional >*]	*Main focus*	No	0	
				Yes	1	
				Not applicable	.a	
			Foreground	No	0	
				Yes	1	
				Not applicable	.a	
			More than one	No	0	

				Yes	1
				Not applicable	.a
			Audience eye contact	No	0
				Yes	1
				Not applicable	.a
			Form	Land mammals	0
				Avian	1
				Insects	2
				Aquatic	3
				Other	4
				Mixed	5
				Not applicable	.a
People	*Present*	No	0		
		Yes	1		
	[Additional >]	*Main focus*		No	0
				Yes	1
				Not applicable	.a
		Foreground		No	0
				Yes	1
				Not applicable	.a
		More than one		No	0
				Yes	1
				Not applicable	.a
		Audience eye contact		No	0
				Yes	1
				Not applicable	.a
		Type		Private individual	0
				Activist or volunteer	1
				Journalistic	2
				Business	3

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				Other		4
				Unclear		5
				Mixed		6
				Not applicable		.a
	Visible demographics	No			0	
		Yes			1	
		Not applicable			.a	
		[*Additional >*]	*White*	No		0
				Yes		1
				Mixed		2
				Unclear		3
				Not applicable		.a
			Male	No		0
				Yes		1
				Mixed		2
				Unclear		3
				Not applicable		.a
			Young	No		0
				Yes		1
				Mixed		2
				Unclear		3
				Not applicable		.a
Primary Issue	*Form*	Direct societal harm to nature			0	
		[*Additional >*]		Pollution		0
				Policy		1
				Energy or Mining		2
				Deforestation		3
				Desertification		4
				Global warming		5
				Mixed		6

				Not applicable	.a
		General environmental disaster	1		
		[*Additional >*]		Wildfire	0
				Flooding	1
				Drought	2
				Not applicable	.a
		Other	2		
		[*Additional >*]		Justice	0
				Protest	1
				Human health	2
				Conservation	3
				Greenwashing	4
				Coronavirus	5
				Economics	6
				Not applicable	.a
		No clear issue	3		
	Scope	Domestic/national	0		
		Global/international	1		
		Unclear	2		
	Accountability (culpability)	Industry	0		
		Business	1		
		Political actors	2		
		Mixed or other	3		
		Unclear or no attribution	4		
Nature	*Clean*	No	0		
		Yes	1		
		Neither	.a		
	Intensively managed	No	0		
		Yes	1		
		Neither	.a		

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	Vulnerability and threat	No	0		
		Yes	1		
	Decorative backdrop	No	0		
		Yes	1		
	Protest symbol	No	0		
		Yes	1		
	Aesthetically beautiful	No	0		
		Yes	1		
	Subject of science	No	0		
		Yes	1		
Additional Symbolism	*Present*	No	0		
		Yes	1		
	[*Additional >*]	*Symbolic colour*	No	0	
			Yes	1	
			Not applicable	.a	
		Extinction	No	0	
			Yes	1	
			Not applicable	.a	
		Humanisation of Nature	No	0	
			Yes	1	
			Not applicable	.a	
		Symbolic violence (to nature)	No	0	
			Yes	1	
			Not applicable	.a	
		Powerful Activist	No	0	
			Yes	1	
			Not applicable	.a	
		Juxtaposition	No	0	
			Yes	1	
			Not applicable	.a	

Appendix Four: Survey Questionnaire

<div style="border:1px solid black">

Introduction:

You are being asked to participate in a survey for a research project entitled: *Framing Nature: Image Construction, Diffusion and Reception within the Environmental and Climate Movement*. This study is being conducted by Joshua Garland, a PhD student at the Universities of Milan and Turin, Italy. It focuses on how Nature is represented in images shared by a range of environment and climate-specific groups.

The survey should take around 15 minutes and will ask a range of questions concerning your perspectives on environmental and climate change issues. It will also ask for responses concerning a number of images which shall be presented later.

Any responses you provide will be stored securely and anonymously so as to ensure confidentiality. All data will only be used for the purposes of this research, which includes the production of a PhD thesis and academic publications. There are no third parties connected to this research, and any answers you give will never under any circumstances be shared with a third party. All data shall be destroyed following completion of the project, expected around February 2023. You retain the right to withdraw your participation and any information supplied at all times.

For any queries, please feel free to contact the Principal Investigator, Joshua Garland, using: Joshua.Garland@unimi.it

Many thanks for your participation in this survey.

Consent statement:

I understand that I am about to participate in a PhD research project and know that any responses I supply will be anonymous and confidentially held by the Principal Investigator and never shared with any third party. I understand that any information I give will be used to inform a PhD thesis and any subsequent publications from this work. I know that I am free to withdraw my consent at any time.

On the basis of this understanding, I grant my consent for the responses I provide to this survey to be collected and used for the purposes specified above.

☐ | Yes, I grant my consent.

</div>

Start of Questionnaire

Issue Concerns

1. Issue concern:								
Q:	In terms of the environment, climate, and society, how worried are you about the following? (Please select one option per row).							
		Not at all worried	Not very	Somewhat worried	Very	Extremely worried	Don't know	
A:	Climate change (global warming)							
	Natural disasters (such as floods, wildfires, and similar)							
	Pollution (including plastics)							
	Conservation and biodiversity							
	Food and water access							
	Energy							
	Economic costs							
	Politics and policy							
	Future generations							

2. Information exposure:			
	Q:	Which of the following are your main sources of information about environmental and climate issues? (Tick all that apply).	
	A:	Friends and family	☐
		Mainstream media (online or print)	☐
		Social media (such as Facebook, Twitter and others)	☐
		Alternative online media (including blogs)	☐
		Fellow group members	☐
		Organisations (through newsletters, meetings, websites or similar)	☐
		Colleagues at work or school	☐
		None of the above	☐

3. Image perspectives (general):			
	Q1:	Thinking about images, such as photographs and cartoon drawings, do you feel that they…	
		Q1a	Can be effective at communicating environmental and climate challenges in general?
		A1a:	No ☐
			Yes ☐

		Don't know	☐
	Q1b:	Are important for communicating environmental and climate challenges?	
	A1b:	No	☐
		Yes	☐
		Don't know	☐

4. Nature values:								
Q:	How far do you value Nature for each of the following options? (Please select one option per row).							
		Not at all	Very little	Somewhat	A lot	A great deal	Don't know	
A:	Beauty and picturesque scenery							
	Leisure							
	Study (including of Nature)							
	Livelihood (income)							
	Reflection							
	Stress relief							
	Health and wellbeing							

5. Nature threat:			
Q:	Do you feel that Nature is under threat in the country where you live?		
A:	No	☐	
	Yes	☐	
	Don't know	☐	

Trust in Institutions

6. Democracy:			
Q:	Overall, how satisfied or dissatisfied are you with the way democracy works in the country where you live?		
A:	0 (very dissatisfied), 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (very satisfied)		
	Don't know	☐	

7. Trust (institutions):								
Q:	In general, how much would you say that you trust each of the following institutions? (Please select one option per row).							
		Not at all	Very little	Somewhat	A lot	A great deal	Don't know	
A:	Environmental organisations							

	National governments						
	Political parties						
	Justice system (including courts and police)						
	Mass media						
	European Union						
	Trade unions						

8. Trust (solutions):

	Q:	To what extent do you feel the following can be relied upon to solve environmental problems in general? (Please select one option per row).						
			Not at all	Very little	Somewhat	A lot	A great deal	Don't know
	A:	Private individuals						
		National governments						
		European Union						
		Business and/or the market						
		Science and technology						
		NGOs and/or charities						

Activist Histories

9. Memberships:

	Q:	Have you been a member of any of the following types of organisation in the past 12 months? (Tick all that apply).	
	A:	Political party	☐
		Human rights	☐
		Trade union	☐
		Peace	☐
		Anti-racism	☐
		Sport or cultural	☐
		Youth	☐
		Religious	☐
		Women's	☐
		LGBTQ+	☐
		None of the above	☐

10. Activism:

	Q:	In the last 12 months, have you done any of the following? (Tick all that apply).	
	A:	Contacted a politician	☐

	Signed a petition	☐	
	Boycotted certain products	☐	
	Worn or displayed a badge or sign	☐	
	Raised awareness on social media	☐	
	Participated in a demonstration	☐	
	Participated in direct action (such as blockades, occupations, civil disobedience)	☐	
	None of the above	☐	

11. Protest participation:		
Q:	How many times have you participated in protest demonstrations in the past?	
A:	Never	☐
	1-5	☐
	6-10	☐
	11-20	☐
	21 or more	☐

Images

12. Nature depiction:									
	Q:	Considering the presented image, how far do you feel "Nature" is being depicted in the following ways? (Please answer using the scale provided).							
	A:	Dirty							Clean
		Vulnerable							Resilient
		Dangerous							Safe
		Ugly							Beautiful
		Managed							Wild
		Unfamiliar							Familiar
		Non-local							Local
		Unhealthy							Healthy

13. Image feeling:									
	Q:	Considering the presented image, how far does it make you feel the following? (Please answer using the scale provided).							
	A:	Worried							Relaxed
		Angry							Calm
		Powerless							Powerful
		Threatened							Secure
		Upset							Happy
		Disinterested							Interested
		Discouraged							Encouraged
		Uninformed							Informed

14. Image use:			
	Q:	Which of the following purposes do you feel the presented image could be useful for? (Tick all that apply).	
	A:	Awareness raising	☐
		Influencing attitudes	☐
		Influencing behaviours	☐
		Informing debate	☐
		Promoting environmental group membership	☐
		Promoting participation in protest	☐
		Catching people's eye	☐
		None of the above	☐

About You (Demographics)

15. Age:			
	Q:	Please select the relevant age category.	
	A:	25 or under	☐
		26-35	☐
		36-45	☐
		46-55	☐
		56-65	☐
		Over 65	☐
		Prefer not to say	☐

16. Gender:		
	Q:	How would you describe your gender? (Write in the space below. if you prefer not to say, please indicate this in the answer section).
	A:	[INTENTIONALLY LEFT BLANK]

17. Occupational status:			
	Q:	Which of the following best describes your employment situation in the last 7 days?	
	A:	Employed (full- or part-time, including self-employed)	☐
		Student or in-training	☐
		Volunteer	☐
		Unemployed	☐
		Retired	☐
		Housewife/househusband	☐
		Prefer not to say	☐

18. Education:			
	Q:	Are you a university graduate? (If you are currently studying towards a degree, please choose 'Yes').	
	A:	No	☐
		Yes	☐
		Prefer not to say	☐

19. Social class:			
	Q:	People sometimes describe themselves as belonging to a particular social class. Would you describe yourself as belonging to one of the following options?	
	A:	Working class	☐
		Lower Middle class	☐
		Upper Middle class	☐
		Upper class	☐
		None	☐
		Don't know	☐
		Prefer not to say	☐

20. Country of residence:			
	Q:	In which country do you currently live? (Please write in the space provided).	
	A:	[INTENTIONALLY LEFT BLANK]	

21. Country of birth:			
	Q:	Is your current country of residence the same as your country of birth?	
	A:	No	☐
		Yes	☐
		Prefer not to say	☐

22. Area of residence:			
	Q:	Which option best describes the area where you live?	
	A:	A big city	☐
		The suburbs or outskirts of a big city	☐
		A town or small city	☐
		A country village	☐
		A farm or home in the countryside	☐
		Don't know	☐
		Prefer not to say	☐

23. Political leaning:		
	Q:	In politics, people sometimes talk of "left" and "right". Where would you place yourself on this scale?
	A:	0 (left), 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (right)

		Don't know	☐
		Prefer not to say	☐

24. Group affiliation:		
	Q:	Finally, from which group did you receive the link to this survey? (Please indicate the group or organisation name in the space provided).
	A:	[INTENTIONALLY LEFT BLANK]

End of Questionnaire

Research report requests:
Thank you very much for taking the time to complete this survey.
If you are interested in receiving a short report from this research, you are welcome to contact the Principal Investigator directly to request one, using: Joshua.Garland@unimi.it
In the email, please provide your name and the contact email address of your preference.
Please note that any information you choose to provide will be used only for the stated purpose of sending the research report after project completion (expected February 2023). It will be stored separately from your survey responses and never linked to the answers given. Your details will never under any circumstances be shared with a third party.
Thank you again, and please feel free to contact the Principal Investigator, Joshua Garland (Joshua.Garland@unimi.it), should you have any queries about any aspect of this research.

Survey End

Appendix Five: Factor Analysis Tables

Tables: Factor Analysis of Image Meanings; Oblimin, *n*=104.

			Factors			
	I	II	III	IV	V	Uniqueness
Image One	*(Potency)*	*(Evaluation)*	*(Activity)*	*()*	*()*	
dirty-clean		0.51				0.68
vulnerable-resilient	0.65					0.55
dangerous-safe		0.65				0.55
ugly-beautiful		0.82				0.31
managed-wild		0.58				0.65
unfamiliar-familiar						0.82
non-local-local		-0.56				0.54
unhealthy-healthy		0.83				0.25
worried-relaxed	0.90					0.16
angry-calm	0.92					0.14
powerless-powerful	0.73					0.39
threatened-secure	0.83					0.29
upset-happy	0.88					0.20
disinterested-interested			0.75			0.32
discouraged-encouraged			0.66			0.34
uninformed-informed			0.70			0.36
α	0.90	0.75	0.61			

Image Two	(Potency)	(Evaluation)	(Activity)	(Localness)	()	
dirty-clean		0.82				0.25
vulnerable-resilient			-0.57			0.36
dangerous-safe		0.67				0.35
ugly-beautiful		0.79				0.31
managed-wild				-0.57		0.52
unfamiliar-familiar		0.70				0.46
non-local-local				0.81		0.27
unhealthy-healthy		0.70				0.32
worried-relaxed	0.85					0.24
angry-calm	0.81					0.21
powerless-powerful	0.75					0.33
threatened-secure	0.83					0.27
upset-happy	0.86					0.20
disinterested-interested		0.56				0.40
discouraged-encouraged			0.53			0.31
uninformed-informed			0.65			0.44
α	0.89	0.82	0.55	.		

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Image Three	(Potency)	(Evaluation)	(Engaging)	(Familiarity)	(Localness)	
dirty-clean		0.85				0.25
vulnerable-resilient	0.62					0.53
dangerous-safe		0.72				0.30
ugly-beautiful		0.77				0.30
managed-wild						
unfamiliar-familiar				0.84		0.26
non-local-local					0.87	0.16
unhealthy-healthy		0.61				0.41
worried-relaxed	0.80					0.31
angry-calm	0.84					0.19
powerless-powerful	0.79					0.32
threatened-secure	0.74					0.39
upset-happy	0.87					0.20
disinterested-interested			0.65			0.28
discouraged-encouraged	0.50					0.59
uninformed-informed			0.82			0.25
α	0.86	0.76	0.57			

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Image Four	(Potency)	(Activity)	(Evaluation)	(Knowing)	()	
dirty-clean			0.71			0.40
vulnerable-resilient						0.43
dangerous-safe			0.50			0.50
ugly-beautiful			0.61			0.35
managed-wild			0.63			0.35
unfamiliar-familiar				0.67		0.47
non-local-local				0.72		0.41
unhealthy-healthy			0.71			0.31
worried-relaxed	0.90					0.15
angry-calm	0.89					0.18
powerless-powerful		0.54				0.42
threatened-secure	0.84					0.20
upset-happy	0.85					0.23
disinterested-interested		0.86				0.22
discouraged-encouraged		0.81				0.25
uninformed-informed		0.80				0.30
α	0.91	0.80	0.72	0.41		

Image Five	(Potency)	(Evaluation)	(Activity)	(Localness)	(Familiarity)	
dirty-clean		0.77				0.33
vulnerable-resilient	0.58					0.49
dangerous-safe		0.69				0.41
ugly-beautiful		0.80				0.33
managed-wild			0.66			0.38
unfamiliar-familiar					0.72	0.41
non-local-local				0.87		0.15
unhealthy-healthy		0.69				0.38
worried-relaxed	0.85					0.16
angry-calm	0.75					0.27
powerless-powerful	0.73					0.25
threatened-secure	0.77					0.30
upset-happy	0.87					0.19
disinterested-interested			0.68			0.25
discouraged-encouraged						
uninformed-informed			0.78			0.26
α	0.87	0.77	0.73		.	

Image Six	(Potency)	(Evaluation)	(Activity)	(Knowing)	(Wildness)	
dirty-clean		0.68				0.45
vulnerable-resilient		0.57				0.32
dangerous-safe		0.76				0.38
ugly-beautiful		0.67				0.31
managed-wild					0.83	0.28
unfamiliar-familiar				0.76		0.24
non-local-local				0.81		0.22
unhealthy-healthy						
worried-relaxed	0.88					0.18
angry-calm	0.87					0.15
powerless-powerful						
threatened-secure	0.86					0.24
upset-happy	0.87					0.18
disinterested-interested			0.73			0.26
discouraged-encouraged			0.73			0.27
uninformed-informed			0.83			0.27
α	0.91	0.67	0.77	0.79		

Note: 16 items (bipolar scales) for six unique images representing the central concepts (the images), measuring two sub-concepts (Nature representation and image feeling). Eigenvalues set to 1 (Kaiser criterion) with factor loadings of at least .5. Oblique (oblimin) rotation applied. Reliability alpha (α) concerned measurement scales with items respectively grouped under the factors, but with those which had negative factor loadings removed given little item-factor correlation. Reliability tests are not suitable for factors with one item, hence the corresponding absence of an alpha in such cases.

Appendix Six: Interview Schedule

Main Questions

General Themes

- To begin with, I wonder if you could tell me a bit about yourself and your background?

- Can you tell me about how you became involved with [group]?
    - What influenced you to get involved initially?
        - Did you already know some of those involved?
            - Why do you think others became involved?
- What activities does [group] get involved with?
    - In what ways have you been involved in these activities?
        - What have been your experiences in this/these role(s)?
        - Did you have previous experience of these activities/roles before [group]?
    - To what extent does [group] work with other groups/organisations as part of its activities?
        - In what ways, specifically?
        - Are you a member of any other activist groups?

- How often do you feel you are able to experience the natural environment?
    - In what ways do you commonly do this?
        - Could you describe this/these experience(s)?
    - What does the natural environment mean for you?

- What are your main concerns around the environment?
    - And how about with climate change?
    - How do you feel about (national) government's approach to these issues where you are?

Imagery

- Can you tell me more about how [group] tries to communicate to the wider public?
    - How does social media get used within this?
    - How are images used within this as well?
        - Could you tell me about how images are selected for use?
        - Why are certain images chosen over others?
        - How important do you feel visual materials such as images are to communication efforts?
        - Thinking still about the environment and climate change, have you seen or used an image which you felt was very powerful or effective?
            - Could you describe this image for me?

- By extension, has there been an image which you think was not very effective or powerful?
    - Could you describe this image for me?

Image Presentation

- I'm going to present a couple of images in turn, [present image X], can you tell me what you see?
    - What do you feel it is trying to say/communicate?
        - How do you think Nature is being depicted here?
    - How does it make you feel when looking at it?
    - In what ways do you feel this image could be used to communicate environmental or climate change challenges?
        - Why?
        - Do you believe there any limitations to what this image could effectively convey to an audience? Why?

- [introduce next image], what can you see with this one?
    - [repeat same question themes].

End of Questions

- Is there anything you would like to add to what has already been discussed?
- Finally, is there anything you would like to ask me?

Appendix Seven: List of Supplementary Interviews (Chronological)

XR Sweden Organiser, Thursday 21st April 2022.

Conservationist Framing Expert, Thursday 28th April 2022.

Environmental Photography Expert, Thursday 9th June 2022.

XR UK Media Member, Friday 8th July 2022a.

XR UK Media Member, Friday 8th July 2022b.

XR Global Media Member, Thursday 14th July 2022.

XR Global Media Member, Friday 7th October 2022a.

XR Global Media Member, Friday 7th October 2022b.

Appendix Eight: Country-Level Survey Data

Key:

		Sample:	
AR	Awareness raising	UK	116
IA	Influencing attitudes	Netherlands	14
IB	Influencing behaviours	Sweden	4
ID	Informing debate	Total	134
PEGM	Promoting environmental group membership		
PPIP	Promoting participation in protest		
CPE	Catching people's eye		
NOTA	None of the above		
NRES	Non-response		

Note: In the below, semantic differential visualisations are presented first with image use data organised into the tables presented below each SD graph.

Image One:

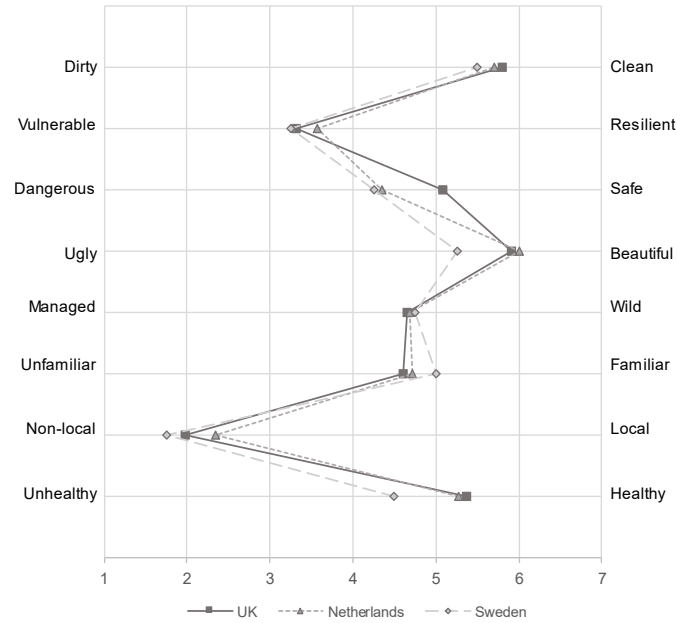Image One: Nature Representation (Country)

Image One: Image Feeling (Country)
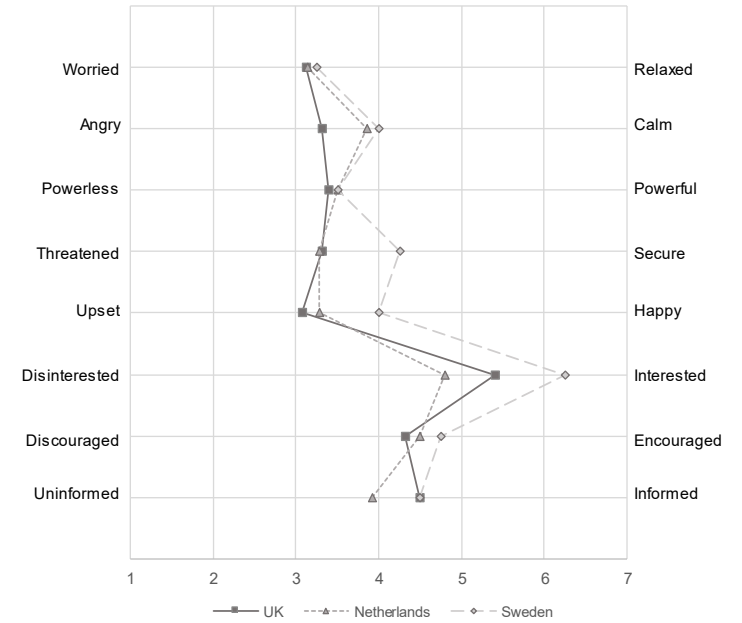
Image One	UK		Netherlands		Sweden		Total	
(Country)	Respondents	(%)	Respondents	(%)	Respondents	(%)	Respondents	(%)
AR	93	80	11	79	4	100	108	81
IA	63	54	7	50	2	50	72	54
IB	47	41	4	29	2	50	53	40
ID	41	35	2	14	4	100	47	35
PEGM	69	59	5	36	4	100	78	58
PPIP	17	15	2	14	3	75	22	16
CPE	83	72	9	64	4	100	96	72
NOTA	9	8	1	7	0	0	10	7
NRES	0	0	0	0	0	0	0	0

Image Two:

Image Two: Nature Representation (Country)

Image Two: Image Feeling (Country)
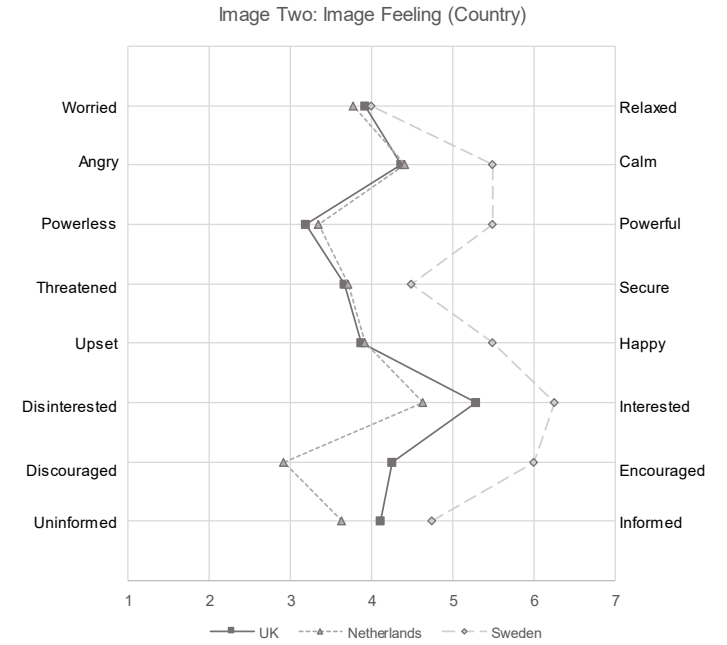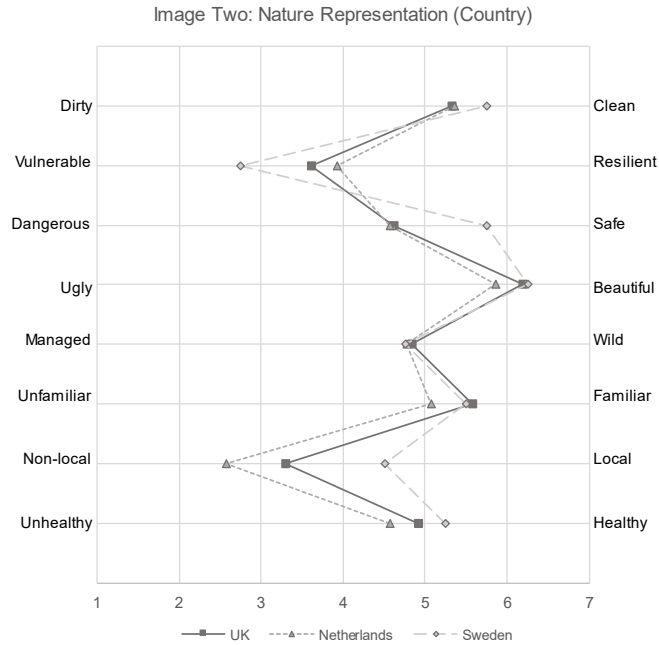
Image Two (Country)	UK Respondents	(%)	Netherlands Respondents	(%)	Sweden Respondents	(%)	Total Respondents	(%)
AR	52	45	8	57	2	50	62	46
IA	49	42	6	43	3	75	58	43
IB	34	29	5	36	2	50	41	31
ID	34	29	3	21	3	75	40	30
PEGM	49	42	4	29	2	50	55	41
PPIP	23	20	3	21	2	50	28	21
CPE	70	60	9	64	4	100	83	62
NOTA	27	23	4	29	0	0	31	23
NRES	1	0.8	0	0	0	0	1	0.7

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Image Three:

Image Three: Nature Representation (Country)

Image Three: Image Feeling (Country)
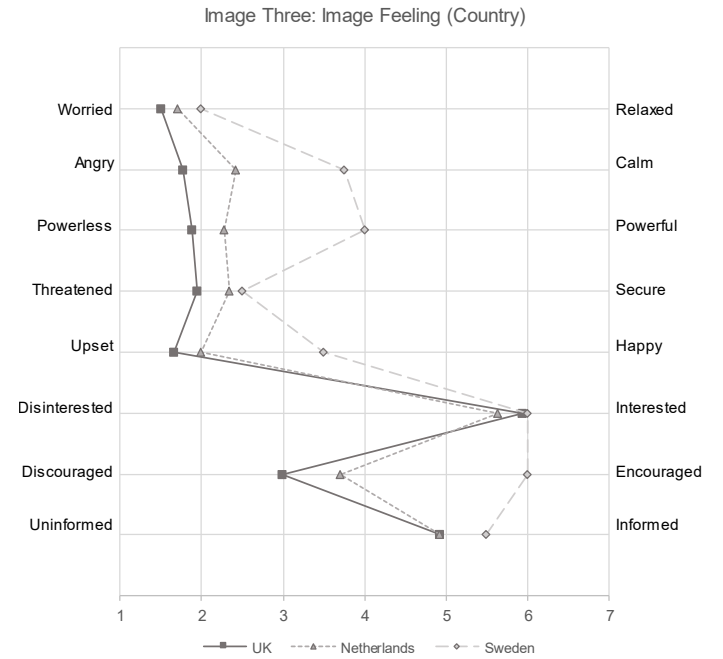
Image Three (Country)	UK Respondents	(%)	Netherlands Respondents	(%)	Sweden Respondents	(%)	Total Respondents	(%)
AR	102	88	12	86	4	100	118	88
IA	87	75	11	79	2	50	100	75
IB	63	54	6	43	2	50	71	53
ID	57	49	7	50	4	100	68	51
PEGM	87	75	5	36	3	75	95	71
PPIP	64	55	4	29	4	100	72	54
CPE	103	89	12	86	4	100	119	89
NOTA	1	0.8	1	7	0	0	2	1
NRES	0	0	0	0	0	0	0	0

Image Four:
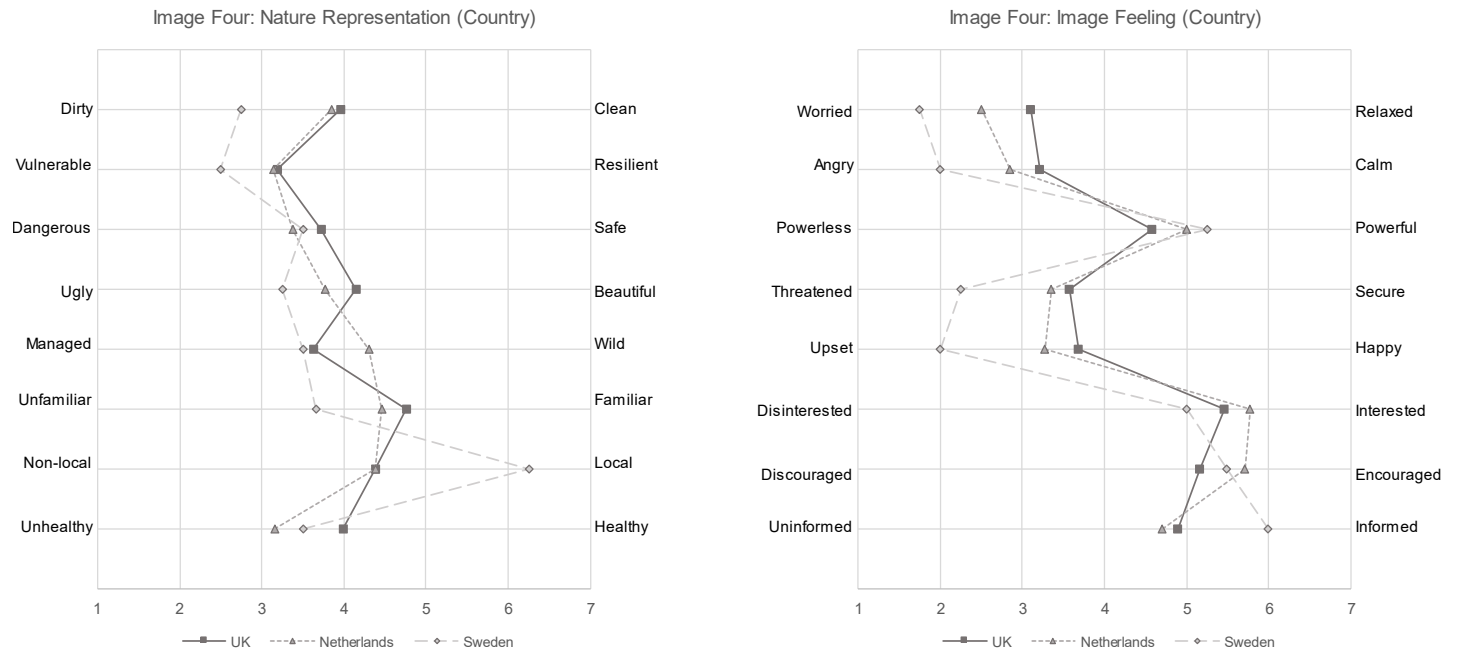
Image Four: Nature Representation (Country)

Image Four: Image Feeling (Country)

| **Image Four** | UK | | Netherlands | | Sweden | | Total | |
(Country)	Respondents	(%)	Respondents	(%)	Respondents	(%)	Respondents	(%)
AR	72	62	13	93	2	50	87	65
IA	52	45	9	64	2	50	63	47
IB	64	55	6	43	2	50	72	54
ID	50	43	3	21	3	75	56	42
PEGM	77	66	9	64	2	50	88	66
PPIP	98	84	14	100	4	100	116	87
CPE	55	47	10	71	2	50	67	50
NOTA	7	6	0	0	0	0	7	5
NRES	0	0	0	0	0	0	0	0

Image Five:
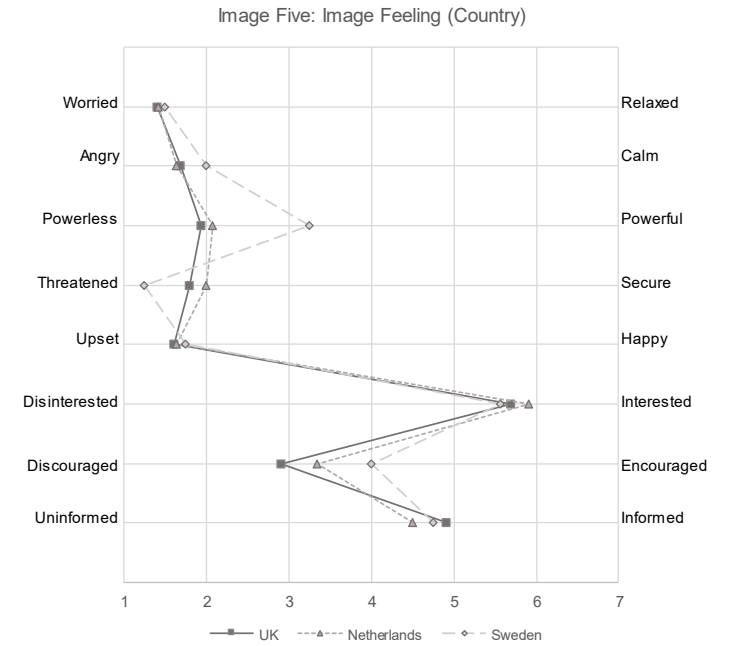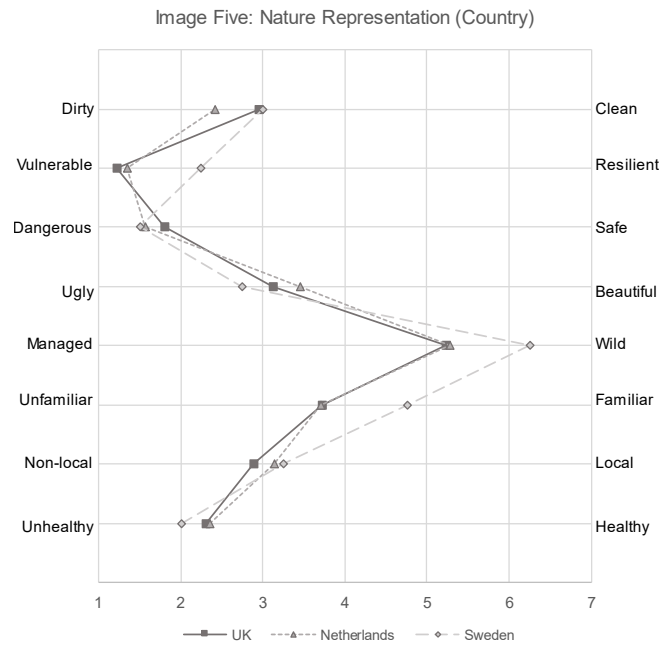
Image Five: Nature Representation (Country)

Image Five: Image Feeling (Country)

Image Five	UK		Netherlands		Sweden		Total	
(Country)	Respondents	(%)	Respondents	(%)	Respondents	(%)	Respondents	(%)
AR	100	86	12	86	4	100	116	87
IA	76	66	9	64	3	75	88	66
IB	66	57	6	43	2	50	74	55
ID	71	61	6	43	4	100	81	60
PEGM	68	59	4	29	2	50	74	55
PPIP	56	48	4	29	4	100	64	48
CPE	97	84	13	93	3	75	113	84
NOTA	1	0.8	1	7	0	0	2	1
NRES	1	0.8	0	0	0	0	1	0.7
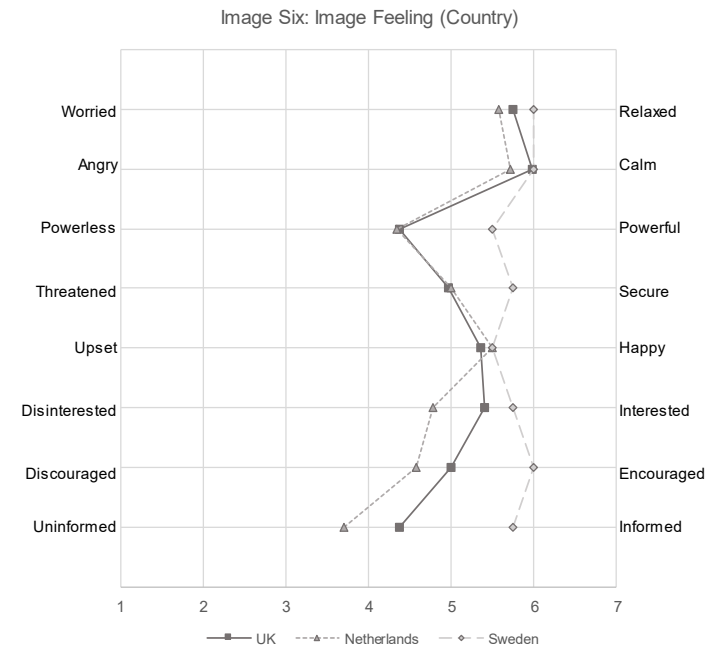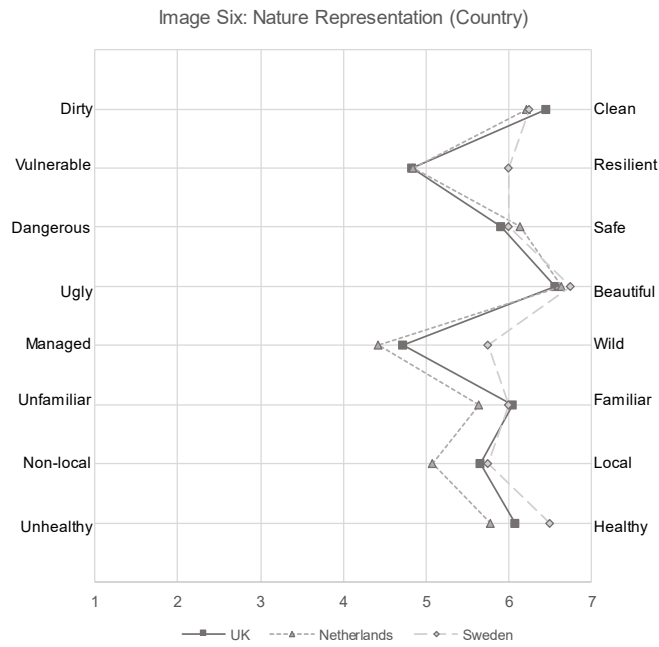
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Image Six:

Image Six: Nature Representation (Country)

Image Six: Image Feeling (Country)

Image Six	UK		Netherlands		Sweden		Total	
(Country)	Respondents	(%)	Respondents	(%)	Respondents	(%)	Respondents	(%)
AR	28	24	3	21	3	75	34	25
IA	31	27	4	29	3	75	38	28
IB	28	24	3	21	2	50	33	25
ID	21	18	2	14	2	50	25	19
PEGM	48	41	2	14	3	75	53	40
PPIP	9	8	1	7	2	50	12	9
CPE	52	45	8	57	4	100	64	48
NOTA	32	28	5	36	0	0	37	28
NRES	4	3	0	0	0	0	4	3

Appendix Nine: Image Use Results Tables

Key:

		Sample:	
AR	Awareness raising	Radicals	69
IA	Influencing attitudes	Reformers	52
IB	Influencing behaviours	Conservationists	16
ID	Informing debate	Total	137
PEGM	Promoting environmental group membership		
PPIP	Promoting participation in protest		
CPE	Catching people's eye		
NOTA	None of the above		
NRES	Non-response		

Image One	Radicals		Reformers		Conservationists		Total	
	Respondents	(%)	Respondents	(%)	Respondents	(%)	Respondents	(%)
AR	53	76.8	44	84.6	13	81.2	110	80.2
IA	37	53.6	31	59.8	6	37.5	74	54
IB	25	36.2	24	46.1	5	31.2	54	39.4
ID	24	34.7	19	36.5	5	31.2	48	35
PEGM	40	57.9	31	59.6	10	62.5	81	59.1
PPIP	13	18.8	8	15.3	2	12.5	23	16.7
CPE	46	66.6	41	78.8	12	75	99	72.2
NOTA	8	11.5	1	1.9	1	6.2	10	7.2
NRES	0	0	0	0	0	0	0	0

Image Two	Radicals		Reformers		Conservationists		Total	
	Respondents	(%)	Respondents	(%)	Respondents	(%)	Respondents	(%)
AR	30	43.4	28	53.8	5	31.2	63	45.9
IA	26	37.6	27	51.9	5	31.2	58	42.3
IB	18	26	20	38.4	3	18.7	41	29.9
ID	20	28.9	17	32.6	3	18.7	40	29.1
PEGM	30	43.4	23	44.2	3	18.7	56	40.8
PPIP	15	21.7	13	25	1	6.2	29	21.1
CPE	36	52.1	38	73	11	68.7	85	62
NOTA	20	28.9	7	13.4	5	31.2	32	23.3
NRES	0	0	1	1.9	0	0	1	0.7

Image Three	Radicals		Reformers		Conservationists		Total	
	Respondents	(%)	Respondents	(%)	Respondents	(%)	Respondents	(%)
AR	62	89.8	46	88.4	12	75	120	87.5
IA	54	78.2	39	75	9	56.2	102	74.4
IB	38	55	30	57.6	5	31.2	73	53.2
ID	36	52.1	29	55.7	4	25	69	50.3
PEGM	55	79.7	36	69.2	7	43.7	98	71.5
PPIP	45	65.2	20	38.4	9	56.2	74	54
CPE	59	85.5	47	90.3	16	100	122	89
NOTA	1	1.4	1	1.9	0	0	2	1.4
NRES	0	0	0	0	0	0	0	0

Image Four	Radicals		Reformers		Conservationists		Total	
	Respondents	(%)	Respondents	(%)	Respondents	(%)	Respondents	(%)
AR	47	68.1	34	65.3	9	56.2	90	65.6
IA	36	52.1	21	40.3	7	43.7	64	46.7
IB	39	56.5	26	50	8	50	73	53.2
ID	37	53.6	13	25	7	43.7	57	41.6
PEGM	44	63.7	39	75	7	43.7	90	65.6
PPIP	63	91.3	43	82.6	13	81.2	119	86.8
CPE	35	50.7	29	55.7	5	31.2	69	50.3
NOTA	4	5.7	2	3.8	1	6.2	7	5.1
NRES	0	0	0	0	0	0	0	0

Image Five	Radicals		Reformers		Conservationists		Total	
	Respondents	(%)	Respondents	(%)	Respondents	(%)	Respondents	(%)
AR	58	84	46	88.4	14	87.5	118	86.1
IA	43	62.3	37	71.7	9	56.2	89	64.9
IB	38	55	28	53.8	9	56.2	75	54.7
ID	44	63.7	32	61.5	7	43.7	83	60.5
PEGM	41	59.4	29	55.7	5	31.2	75	54.7
PPIP	36	52.1	23	44.2	5	31.2	64	46.7
CPE	57	82.6	46	88.4	12	75	115	83.9
NOTA	2	2.8	1	1.92	0	0	3	2.1
NRES	1	1.44	0	0	0	0	1	0.7

Image Six	Radicals		Reformers		Conservationists		Total	
	Respondents	(%)	Respondents	(%)	Respondents	(%)	Respondents	(%)
AR	15	21.7	18	34.6	3	18.7	36	26.2
IA	15	21.7	20	38.4	5	31.2	40	29.1
IB	14	20.2	18	34.6	2	12.5	34	24.8
ID	12	17.3	12	23	2	12.5	26	18.9
PEGM	22	31.8	25	48	8	50	55	40.1
PPIP	7	10.1	5	9.6	1	6.2	13	9.4
CPE	30	43.4	28	53.8	9	56.2	67	48.9
NOTA	25	36.2	9	17.3	3	18.7	37	27
NRES	3	4.3	1	1.92	0	0	4	2.9

Notes

[1] Within geography literatures, the concepts of 'landscape', 'place' and 'space' hold different connotations and conceptualisations which can render them fairly distinct from each other (see, for instance, the panel discussion of Merriman et al. 2008). For the purpose of the present research which has its central interest in the construction of Nature and not only on a notion of 'landscape' or similar, these terms are used more or less interchangeably unless otherwise specified.

[2] This social construction of space and the social relations involved have been elaborated upon within the scholarship. Through broadly defining the political, landscapes and potentially conflictual experiences or understandings of them have been analysed in terms of various power relations which fall, for instance, across gender, colonial and class or economic lines (see Merriman et al. 2008; Pierce et al. 2011).

[3] Re-developments can introduce semi-natural elements explicitly into their design, embracing a form of 'wasteland aesthetic' (Gandy, 2013).

[4] It is also possible to find ideas around the body in the work of Melucci, as considered by Rebughini and Scribano (2018). Under this conception, emphasis was placed upon embodied emotion as a key aspect in agency and action, as well as in the construction of reality and identity through everyday experiences. Emotion is situated within the body and linked to the senses, but interwoven with cognitive elements.

[5] These efforts being made without similar concern shown should the development in question occur elsewhere. They can be galvanised in response to perceived threats to the idealised and picturesque aspects of a landscape from functional, standardised technological 'devices' like wind turbines, for instance (Brittan, 2001; Nohl, 2001). That said, the NIMBY label is not without broader critiques, including notably from Wolsink (1994, 2006).

[6] For example scientific visualisations of climate change, see IPCC-produced graphs available at: https://www.ipcc.ch/sr15/graphics/ (accessed 16th May 2022).

[7] Concerning landscape art, the work of Constable well-captures a picturesque visual aesthetic coupled with portrayals of an idealised bucolic life, as well as leisure activities performed in pristine environments. Examples of this art held by the UK's National Gallery are available at: https://www.nationalgallery.org.uk/artists/john-constable (accessed 16th May 2022).

[8] By 'audiencing' Rose referred to 'the process by which a visual image has its meanings renegotiated, or even rejected, by particular audiences watching in specific circumstances' (2001:25). Again, emphasis is placed on the non-neutrality of images across their production, usage and consumption. They are interpretable in numerous ways under each respective site and in the different contexts in which they are viewed.

[9] On climate science and knowledge, see an expanded discussion by Sarewitz (2011). Moreover, the use of social media by climate scientists with the aim of engaging with, explaining and making their work plus its implications more easily accessible to the public is advocated in a short yet fairly interesting paper by Hawkins et al. (2014). Regarding ecosystem science and conservation, it has also been argued that science is 'never value free' (see Trudgill, 2001:679).

[10] What has not been detailed in this chapter, but which remains relevant to this discussion on climate change, is the potentially important use of colours in imagery. To elaborate, colours and their different shades can hold meaning, including with climate images and (scientific) graphs in which red has come to denote warming and danger, while blue indicates cooler periods in Earth's climate (see Doyle, 2007; Manzo,

2010b; Walsh, 2015). This was nonetheless introduced in Box 2.4 of the previous chapter, and again in Chapter Nine.

[11] While Latour leant towards this Gaia concept, 'Nature' is retained as the driving term in this study with the understanding of it as both currently dualised but potentially unified (cf. Latour et al. 2018, for instance). It is thus not deemed to solely define one situation or the other and, consequently, does not require a shift to the representation of the natural world as Gaia which occurred within Latour's writings. Nature is here widely defined which, as noted within Chapter Six, was intentional to allow for movement groups' own constructions to be captured during data collection and ensuring analyses.

[12] To define 'direct action', the forms of protest captured by this term can extend to: protest camps which are land occupations in opposition to unwanted developments; lock-ons where participants attach themselves to objects (gates, fences, industrial equipment and the like) with chains; and, lorry surfing in which industry vehicles are climbed upon, slowing logistics operations and related developments as a result. Examples of these protest methods are found within UK-based anti-fracking campaign literature (Garland et al. 2023).

[13] Membership numbers may also be a point of difference. More institutionalised organisations potentially boast higher numbers, including due to cheque-book involvement which requires little physical or direct involvement in group activities (Rootes, 1992). This could be true for Reformers and Conservationists, whereas Radicals and Demonstrative Outsiders are oriented more towards direct participation approaches under less formal organisational and membership structures.

[14] For some authors, the absence of clearly articulated targets would mean that such groups fall outside of any social movement (Touraine, 1985). This view is not shared by all, however, including Haenfler et al. (2012) who researched 'lifestyle movements' which are not outwardly confrontational, including vegetarianism and veganism as examples. Moreover, Saunders (2013) wrote about how it would be difficult for the various actors within the environmental movement (including Conservationists, Radicals and Reformers) to form a collective identity on account of its diversity of campaign methods and foci. As noted in the main text, whether Conservationists are considered part of the environmental movement or not, these groups provided an interesting point of comparison against the other types. It is for this reason that they are included in this study's investigation of environmental and climate movement imagery under a distinctly comparative perspective. Retaining a focus on the framing of Nature within this, it is believed that the inclusion of Conservationists is not contrary to the definition of a 'movement' provided by and adopted from Diani (1992) in Chapter Four. This is because, although Touraine's criterion required the definition of an Other to be in conflict with, Diani notes the wider possibility to be involved in cultural conflicts; applicable to the reproduction or challenging of master frames in movement visuals produced across the devised group typology. The latter point is of interest here.

[15] The script used is available in Appendix Two. To note, a loop to continually repeat the collection request each week until the maximum permitted number of tweets (the 'rate limit') is collected was not used. This is because the vast number of tweets returned would not have met the confines and objectives of this research. Code to deal with platform pagination (a page cursor) was also found to be unnecessary when testing the script during its development, this in part due to the focus on collection at weekly intervals rather than over longer time frames and without a large-N design like much of the literature. In short, the script used was designed to collect media-based posts for the previous week from targeted groups while providing

a manageable yet insightful amount of data for a single researcher to organise and analyse. To this end, the script functioned adequately and met research needs.

[16] These principles are stated within Chapter III of the University's code of ethics, comprising Articles 14-29.

[17] Under the typology, the response rates to the survey were: Radicals, 21 percent; Reformers, 28 percent; Conservationists, 17 percent. This is again presented as the number of respondents divided by the number of groups contacted for each type, respectively.

[18] Although the latter individual indicated that they were nonetheless involved with FoE UK. Consequently, they were treated as an FoE UK member with regards to other question answers and related analyses.

[19] Similarity thereby existed with Beza's (2010) study of mountainous landscapes considered in Chapter Two. With the image as the concept, the Nature presented was understood in terms of the bio-physical (here, Nature representation) and emotional (image feeling).

[20] An example of this from the content analysis was shared by XR Netherlands via Instagram on 20th August 2020. Available: https://www.instagram.com/p/CEG7-GKgnlU/ (accessed 13th August 2022). This image showed the text to be the central and highlighted focus with highly abstract representations of Nature present as a decorative backdrop accompanying textual elements. The use of the skull motif is also symbolic of extinction.

[21] A Conservationist image of volunteers helping to collect turtle eggs on a beach was the key driver of this change. The particular image was shared on Twitter by the UK national branch of the WWF on 16th June 2020, and shows a volunteer's arm reaching into collect the eggs. Available: https://t.co/NJZDl6FNRa (accessed 14th August 2022).

[22] A content analysis-derived example of this was provided by FFF Sweden via Instagram on 22nd May 2019. Available: https://www.instagram.com/p/Bxx1QPknF3P/?hl=en (accessed 1st August 2022). This image demonstrated the integration of a Blue Marble icon, corresponding to the main FFF logo, into a flag to be used during protest events.

[23] This image was shared by Greenpeace Sweden via Instagram on 18th September 2020. Available: https://www.instagram.com/p/CFRSrv-IfBS/?hl=en (accessed 14th August 2022). The image well demonstrates this symbolic use of the colour red to indicate the current presence and vastness in scope of forest fires in Brazil.

[24] An example was an illustrated and symbolic bee motif used within XR UK's campaigning in Wales, shared via Twitter on 29th May 2020. A campaign demand in English and Welsh was stated in the image through the dominant textual message as well, overlayed on a bright orange background with the bee to the left side. Available: https://t.co/snhO4qohOd (accessed 12th January 2021).

[25] For examples, see endnotes 20 and 33.

[26] See also a different approach to humanisation shared by Greenpeace Netherlands via Instagram on 29th July 2019. Available: https://www.instagram.com/p/B0gUIjxAa3q/?hl=en (accessed 14th August 2022). This image was interesting for the number of meaning-laden and often symbolic elements it contained. To elaborate, this image was a cartoon variant of the Blue Marble with the Southern hemisphere melting. The colour red is symbolically used in the North to denote global warming as the overarching issue. There is some minimal text which gives the name of Schiphol airport, and so the aviation industry is one actor

specifically mentioned. This name appears on a plane seatbelt which is pulled tight – too tight – around the circumference of the Earth. This could be understood as a form of symbolic violence afflicted upon the planet. Moreover, the Earth was given eyes as part of its humanisation. These eyes were also crying, which grants the Earth relatable emotions. As part of the overall meaning, the Earth is seemingly unable to resist the violence against it by the aviation industry which was being held culpable for contributing to global warming. The planet could thus be read as an unwilling, humanised victim which could produce a sense of sympathy within the viewer. Indeed, it was an image shared by Greenpeace in the Netherlands, and so could be further understood as part of a campaign against the airport concerning GHG emissions. In terms of absence, the image was clearly against something, but it remained unclear what it was arguing for as an alternative. There is no direct statement about what image viewers could do to lessen this violence on the planet, nor acknowledgement of their own accountability through flying; focusing only upon industry actors. This image is therefore good to demonstrate the different layers of meaning and the ways symbolism can feed into this as part of a very visual claim. For all that it says, however, it also allowed a way to begin thinking also about its limitations, including around a theme of absence.

[27] These images were respectively collected through the content analysis from WWF Netherlands and were posted to Instagram on 19th June 2020. Available: https://www.instagram.com/p/CBmxg3ZINgb/?hl=en (accessed 14th August 2022). The latter was shared by XR Sweden via Instagram on 4th June 2019. Available: https://www.instagram.com/p/ByR8hX0imB_/?hl=en (accessed 14th August 2022).

[28] An image posted by XR Netherlands to Instagram on 1st September 2020. Available: https://www.instagram.com/p/CElngaRA4A3/ (accessed 14th August 2022).

[29] This image was recorded through the content analysis and sourced from FFF Netherlands' Instagram post dated 27th March 2019. Available: https://www.instagram.com/p/BvhfRzWHXDH/?hl=en (accessed 14th August 2022).

[30] Diagnostic framing, concerned with issue definition and blame assignment, is related to what was discussed as 'belief amplification' in an earlier paper (Snow et al. 1986).

[31] And thus maybe beyond Latour's New Climatic Regime (Latour, 2018; Latour et al. 2018; Chapter Four).

[32] Although polar bears coupled with ice landscape imagery accounted for six percent of Rebich-Hespanha and Rice's (2016) image sample, and thus the frequency was similar to that found here (cf. O'Neill, 2019).

[33] Final sample examples included: an image posted to Twitter by XR Netherlands on 10th September 2020 in which the wildfire was accompanied by a general demand without a clear target nor responsibility assignment. The symbolic hourglass of XR's logo is included in one corner. Available: https://t.co/dID0q6V4m6 (accessed 14th August 2022); a second showed a person running down a rural lane during the Australian bushfires. The individual is holding a professional camera, perhaps indicating that they were a photojournalist. The inclusion of this person and the road perhaps helped to highlight a threat to society. This image was shared – as a retweet of a post by an environmental journalist with a verified account and over half a million followers – by XR Sweden through Twitter on 11th September 2020. Available: https://t.co/a7tKAIdInA (accessed 14th August 2022); lastly, a photograph shared by Greenpeace Netherlands via Instagram on 22nd June 2020 could be mentioned. This was an arial photograph of a wildfire in Siberia during an unusually warm period, relaying here an environmental vulnerability with an underlying (yet not directly depicted) relation to human contributions to climate change processes. Available: https://www.instagram.com/p/CBvWa9SFQKx/?hl=en (accessed 14th August 2022).

[34] Group means were computed in Stata and visualised through Excel to two decimal places.

[35] Image Six was sourced from the UK's National Trust's image website (https://www.nationaltrustimages.org.uk/) where it was undated, while Image 9.3 introduced in this chapter was shared in 2015 by the United Nations Environment Programme on Flickr. Image Six was chosen as a representation of yet another photograph found within the final coded sample of the content analysis. The original, which was not reproduced on copyright grounds, was shared among many other instances of similar images on Instagram in 2020 by the Dutch Conservationist organisation, Natuurmonumenten. This image can be viewed at: https://www.instagram.com/p/CC8tkGBHslr/?hl=en (accessed 21st June 2022). The sources of these images thereby further demonstrated that such a cultural rendering of Nature as landscape exists in both the UK and the Netherlands. More than this, they showed how this construction of Nature, replete with beauty, cleanliness and an absence of problems, including those caused by human actions, was also shared by a prominent UN agency. This arguably reflected an international dominance of the problematic Western framing of Nature (mentioned also in Interview, 9th June 2022).

[36] Examples can be found on the XR UK website where various visual materials are downloadable. These can be found at: https://extinctionrebellion.uk/act-now/resources/art-group/ (accessed 7th October 2022). Nature as a decorative backdrop in XR images was also exemplified by XR NL's Instagram posts, including those captured within the main image sample. For example: https://www.instagram.com/p/Bxyxx91CDaU/?hl=en (accessed 7th October 2022).

[37] Images of these actions can be found through online searches, and a photograph of the pink boat forms the cover for the XR-relevant working paper by Saunders et al. (2020). It is also reproduced in Chapter Three of this thesis (see Box 3.4).

[38] The website is available at: https://extinctionrebellion.se/ (accessed 23rd June 2022).

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