

**Animal Representation in Nature Documentaries Narrated by David Attenborough, 1950s-2000s:
A Multimodal Approach**

by

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List of abbreviations

BNC	British National Corpus
LOB	Lancaster-Oslo-Bergen Corpus
NHU	Natural History Unit (BBC)
PE	<i>Planet Earth</i>
PE01	<i>Planet Earth</i> episode 1
PE02	<i>Planet Earth</i> episode 2
PE03	<i>Planet Earth</i> episode 3
PE04	<i>Planet Earth</i> episode 4
PE05	<i>Planet Earth</i> episode 5
PE06	<i>Planet Earth</i> episode 6
PE07	<i>Planet Earth</i> episode 7
PE08	<i>Planet Earth</i> episode 8
PE09	<i>Planet Earth</i> episode 9
PE10	<i>Planet Earth</i> episode 10
PE11	<i>Planet Earth</i> episode 11
TEU	Travel and Exploration Unit (BBC)
ZQD	<i>Zoo Quest for a Dragon</i>
ZQD1	<i>Zoo Quest for a Dragon</i> episode 1
ZQD2	<i>Zoo Quest for a Dragon</i> episode 2
ZQD3	<i>Zoo Quest for a Dragon</i> episode 3
ZQD4	<i>Zoo Quest for a Dragon</i> episode 4
ZQD5	<i>Zoo Quest for a Dragon</i> episode 5
ZQD6	<i>Zoo Quest for a Dragon</i> episode 6
ZQM	<i>Zoo Quest to Madagascar</i>
ZQM1	<i>Zoo Quest to Madagascar</i> episode 1
ZQM2	<i>Zoo Quest to Madagascar</i> episode 2
ZQM3	<i>Zoo Quest to Madagascar</i> episode 3
ZQM4	<i>Zoo Quest to Madagascar</i> episode 4
ZQM5	<i>Zoo Quest to Madagascar</i> episode 5
ZQWA	<i>Zoo Quest to West Africa</i>
ZSL	Zoological Society of London

1. Introduction

This thesis will analyse the historical change in animal representation from 1950-2000 in wildlife films narrated by David Attenborough. The two series I have chosen to focus on are *Zoo Quest* (aired from 1950s to the early 60s) and *Planet Earth* (aired 2006). Of the historical studies that have been conducted on wildlife films (e.g., Bousé 2000, Chris 2006, Mitman 2009), the focus has tended to be the American wildlife film tradition. However, in the UK, one name is synonymous with the wildlife film tradition: David Attenborough. Attenborough started working for the BBC in 1952, where his career as a wildlife film presenter began. The first series of *Zoo Quest* aired in 1954. He continued to present subsequent series of *Zoo Quest*, such as *Zoo Quest to Guiana* (1955) and *Zoo Quest in Paraguay* (1959). However, in the early 1960's, he left the BBC and started a postgraduate degree in Social Anthropology at the London School of Economics – his undergraduate degree being Natural Sciences from Cambridge. After returning to the BBC in 1965 as a controller, and subsequently a director of programming, he once again left the BBC in order to continue wildlife filmmaking. Attenborough then began his critically acclaimed “Life” series in collaboration with the BBC’s Natural History Unit, including, among others, *Life on Earth* (1979), *Life in the Freezer* (1993), *Life of Birds* (1998), and *Life in the Undergrowth* (2005). On completion of his nine-part “Life” series, Attenborough continued to collaborate with senior BBC producer, Alastair Fothergill, narrating *Planet Earth* (2006) and, more recently, *Frozen Planet* (2011). He has been awarded honorary fellowships from Clare College, Cambridge (1980); the Zoological Society of London (1998); and the Linnean Society (1999) for his ‘outstanding and unique contribution to the biological sciences’ (The Linnean Society of London n.d.). Given his vast influence and as David Attenborough is considered one of ‘the most influential presenter[s] in the [wildlife film] genre’ (Freeman 2009, p. 24), it seemed pertinent that I should choose wildlife films which were not only narrated by him, but also spanned his career as the focus of this study.

Firstly, this thesis aims to address a dearth in critical studies on animal representation. Waldau (2013) has suggested that critical studies are one of the 'cutting edge[s]' of animal studies, along with law and philosophy (p. 124). He suggests that the 'principal focus' of critical studies has been predominantly 'human-on-human dominations' (ibid, p. 124), but, in the 21st century along with movements such as posthumanism (Wolf 2010), this bias is starting to change. In literary studies, this has amounted to 'recover[ing] animals from the silence of modern scholarship,' (Fudge 2006, p. 4) and a growing field has developed in the representation of animals in Early Modern literature. In linguistics, however, although the purpose of critical discourse studies has been 'to help correct a[n] [...] underestimation of the significance of language in the production, maintenance, and change of social relations of power', its application to the representation of nonhuman animals is only beginning to be established. Sommer (2000), Kahn (2001), Trampe (2001), and Stibbe (2012) are some of the few scholars who have been exploring this area.

Whilst there does exist a body of research on historical studies of the wildlife film genre (Bousé 2000, Chris 2006, Mitman 2009), these are more concerned with the development of the genre, than with the animals represented within them. Also, all of these studies take a top-down perspective. Mitman (2009) traces the wildlife film genre through television history, and is concerned with how American cultural values and technology have shaped the genre from early black and white travelogues through ethological studies of animals and Disney's true-life adventures to contemporary ecologically minded wildlife films. Bousé (2000), however, focuses predominantly on the overarching narratives used to frame the represented animals. Among others, his focus on adventure, *bildungsroman*, and romance all elucidate the dominance of narrative in wildlife films, which, he argues, *misrepresent* animals. Chris (2006) is 'a cultural critic' whose focus is 'the popular wildlife genre' which is 'scrutinized in light of contemporaneous discourses of which they are expressions of' (p. xix). Her most interesting and unique sections focus on the generic hybridity of wildlife films in the age of media globalisation. Hence all these studies focus on the wildlife film

genre situated in the culture within which it is produced, before considering how ideologies are manifested within the discourse itself. I define ideologies here as “‘common sense’ assumptions which treat authority and hierarchy as natural’ (Fairclough 1989, p. 2). Instead, locating this research in the body of critical discourse studies, I will taking a bottom-up approach, using the ‘specific discursive practices’ (Bednarek 2013, p. 52) evinced in these wildlife films as a starting point.

In this thesis, then, our key focus is on animal representation. When animals appear in literature (mediated by written language), performance art (mediated by movement) and the visual arts (mediated by material), it is perhaps clearer that you are dealing with a represented animal. Whilst wildlife films employ spoken language, through narration, and extradiegetic music that are clearly representational, when animals appear in these films they also employ photographic visuals which are not transparently representational. Hence, employing the medium of film, ‘the basic conceit of most nature films’ is ‘that no one [...] stands behind the camera and [...] what we see before the camera is an unmediated, unedited experience of “Nature”’ (Rothfels 2002, p. x). Bousé (2000), too, is very critical of this conceit. He suggests that Attenborough himself dismisses ‘formal manipulation’ of wildlife films as problematic, highlighting ‘the underlying presumption of the absolute truth of the photographic image’ (Bousé 2000, p. 11). He concludes that this presumption affords that ‘so long as the ingredients are “real” and “natural”’ – the ingredients here being animals – ‘that whatever is made of them must [...] also be’ (ibid, p. 11). This conceit is also conflated by the scientific, and hence “objective”, roots of the wildlife film genre, and the fact that wildlife films are used for pedagogical reasons: for example, online resources for teachers which highlight ecological principles found in the *Planet Earth* series (Aurum Science 2010).

More generally, there are numerous studies of animal representation in a variety of discourses. Animal representation mediated by language has been explored by scholars in literary discourse (Fudge 2006, Edwards 1999), print media discourse (Molloy 2011, Sommer 2000), scientific

discourse (Kahn 2001), and industrial farming discourse (Singer 1975, Stibbe 2012). Focusing on the studies conducted by linguists, Stibbe has suggested that shifting the categorisation of pig from “animal” to “machine,” evinced in the nominal constructions *sow breakdown*, *sow durability*, and *boar power*, ‘justifies [...] a system of farming that is [...] inhumane’ (2012, pp. 45-46). Similarly, in animal experimentation discourse, Kahn has explored the use of agentless passive constructions in which animals appear in ‘the traditional position of responsibility’, syntactically, ‘the head of the sentence’ (2001, p. 243). This, she argues, positions humans ‘outside the moral realm of active responsibility’ (ibid, p. 242). In these studies, then, both lexis and grammar have provided a useful lens through which to view animal representation, and hence they will also be employed in this thesis.

In visuals, animal representation has been explored in cartoons (Baker 1993), visual art (Aloi 2012) and photography (Mitman 2005, Kramer 2005). Visuals for Baker offer an essentially anthropocentric perspective. He suggests that in the human gaze, ‘which is typically mediated by [...] the photographic lens, [...] “animals are always the observed”’ and ““the fact that they can observe us has lost all significance”’ (1993, p. 15). Exploring a different medium, Mitman has highlighted that photographic representations of elephants differ depending on scientific specialty. Population ecologists preferring top down angles which give the photographs a ““calculated aesthetic distance””, whilst ethologists prefer personalised close framing (or close ups) that offer ““intimate, individual portraits”” (2005, pp. 182-183). As highlighted by previous research and given the importance of visual perspective (or focalization), this thesis will analyse the gaze, angle and framing employed in these wildlife film visuals. And, as with Baker’s study, its focus on visuals will undermine the view that ‘the visual [...] be regarded as really too trivial, too transparent, to be of much political or historical import’ (1993, p. 21).

Animal representation mediated by music has been explored infrequently. However, here I must

clarify that, since it is not possible 'to paint an exact image of an animal in music', music does not "represent" the way language and visuals can (Odam et al 1996, p. 37). When animal representation is touched upon, it is usually framed within a history of film music: for example, John Williams' score for *Jaws*. In these studies, the music or the composer is the focus and not the effect the music has on the animal's representation. Hence, Cooke does not probe whether Williams' 'celebrated menacing leitmotif' undermines the intention of Spielberg to portray the shark as an animal 'aggressively pursued by mankind to the point of destruction' (2008, p. 461). Spielberg, one of the text's producers had wanted the shark to be a sympathetic character, but do audiences actually feel connected with the shark? In my opinion, I believe the music undermines this intention. In later research, Cooke (2015) has explored how music is used in wildlife films which focus on ocean ecosystems, though animal representation is mentioned only briefly. When it is highlighted, the focus is on instrumentation: porpoises are accompanied with 'brass fanfare and percussion'; deep-sea animals are accompanied with electronic instruments (ibid, p. 90). Hence, this thesis will focus on how instrumentation characterises these animals, but also how this affects audience empathies (affective involvement) with the represented animals.

Secondly, this thesis aims to apply a comprehensive multimodal approach. As can be seen from the research context above, few studies have integrated language, visuals and music, which is exactly what this multimodal approach will attempt. This approach has been neglected not only by the historical studies of this genre (Bousé 2000, Chris 2006, Mitman 2009), but also by critical discourse studies more generally. Multimodal discourse analysis has its roots in Halliday's Systemic Functional approach, which 'takes into account' not only the 'functions and meaning' of language but also other semiotic systems, like visuals and music (O'Halloran 2005, p.1). Wildlife films offer an ideal chance to apply a multimodal approach, since films employ various semiotic systems, like language, visuals and music. Semiotic systems 'can be defined as a finite collection of discrete signs' where the meaning of each sign is solidified by 'arbitrary social conventions' (Eggins 2004, p. 14), though a sign's meaning

doesn't necessarily remain static through history. Hence, when wildlife film producers make choices about how to represent animals within finite semiotic systems, be they through language, visuals or music, these choices are 'invested with meaning' (ibid, p. 15). For example, categorising a nonhuman animal as an 'animal', a 'creature' or a 'beast' is a conscious choice by the wildlife film producers. So, multimodal discourse analysis 'seek[s] to "denaturalise" representations on other modes of communication', not solely language (Machin & Mayr 2012, p. 9).

Linguists have applied a multimodal approach to print (and electronic) media discourse (Machin & Mayr 2012), advertisements (Baldry 2004), pedagogic discourse (Kress & Van Leeuwen 2001), film discourse (O'Halloran 2004), and visual art (Kress & Van Leeuwen 1996). Given the historical range and scale of this study, I have not used a fully integrated approach preferred by some linguists (O'Halloran 2004). For example, O'Halloran's (2004) study focuses on the language, visuals and music simultaneously in two scenes from a film. In so doing, however, O'Halloran concludes that 'it proved near impossible to simultaneously record dynamically the metafunctional choices across the different semiotic systems' (ibid, p. 127). For this reason and more practical reasons, I have chosen to use a less integrated approach, and hence each semiotic system is considered separately. I will also focus on one metafunction (or modal affordance) for each semiotic system. In multimodal parlance, a modal affordance consists of the 'potentialities and constraints of different modes' (Jewitt 2016, p. 72). So whilst language can categorise, it is impossible for music to do so. Whilst language and visuals can evince relationships, music is unable to do so. Whilst language and visuals may be able to focalize, it is much more difficult, though I would argue not impossible to focalize through music. And, whilst visuals and language can be emotive, music is perhaps strongest at this. Hence, this thesis will focus on the affordances of the different semiotic systems: language's affordance is categorisation (lexis) and interrelationships (grammar); the visual mode's affordance is focalisation; and music's modal affordance is affective involvement.

In the ensuing sections, I shall explore how each mode represents animals differently. The Language Section will be broken down into Lexis and Grammar, and these will be followed by a Visuals and Music Section. Each section will employ an appropriate framework which will help me explore the modal affordances, as defined above. In the Lexis Section, a focus on *Zoo Quest* and *Planet Earth's* lexis, using a keyword approach, will highlight the dominant **categorisation** systems that are employed by each. In the Grammar Section, using Halliday's (2004) transitivity model, I shall explore the interrelations of the represented animals as encoded in grammar. Grammar is useful at exploring **interrelationships** because, crudely, it shows who does what and to whom. Next the Visuals Section will employ Kress and Van Leeuwen's (1996) model, specifically section (4), which incorporates visual semiotic approaches from critical film studies. This model will highlight the ways in which visual features of these wildlife films allow for identification (or **focalisation**) with represented animals. Finally, the Music Section will employ a loose version of Van Leeuwen's (1999) framework, and, as such, I have chosen to discuss the most salient features of each piece of music. This is then supplemented by informant response feedback, gathered by showing short clips of these wildlife films to informants. This will explore the way extradiegetic music affects informants' **affective involvement** with the represented animals, and how representations of these animals differ with and without music.

2. Sources

The historical wildlife films on which I have focused span from the mid-1950s to the early 1960s, whilst the contemporary films are from the mid-2000s. A breakdown of each series and episode with the date of initial broadcast is given below:

1950s/60s data	2000s data
<i>Zoo Quest to West Africa (1955)</i> 17/08/1955	<i>Planet Earth (2006)</i>
<i>Zoo Quest for a Dragon (1956)</i>	Ep01: From Pole to Pole 05/03/2006
Ep01: Borneo 05/10/1956	Ep02: Mountains 12/03/2006
Ep02: Borneo (II) 12/10/1956	Ep03: Fresh Water 19/03/2006
Ep03: Java 19/10/1956	Ep04: Caves 26/03/2006
Ep04: Bali 26/10/1956	Ep05: Deserts 02/04/2006
Ep05: Bali (II) 02/11/1956	Ep06: Ice Worlds 05/11/2006
Ep06: Komodo 09/11/1956	Ep07: Great Plains 12/11/2006
<i>Zoo Quest to Madagascar (1961)</i>	Ep08: Jungles 19/11/2006
Ep01 02/06/1961	Ep09: Shallow Seas 26/11/2006
EP02 09/06/1961	Ep10: Seasonal Forests 03/12/2006
Ep03 16/06/1961	Ep11: Ocean Deep 10/12/2006
Ep04 23/06/1961	
Ep05 30/06/1961	

All these texts are wildlife films produced by the BBC and narrated by Sir David Attenborough.

Whereas the 1950s/60s data was produced by the BBC's Travel and Exploration Unit (TEU) and filmed in collaboration with the Zoological Society of London (ZSL), the 2000s data is part of the BBC's, now well-established, Natural History Unit (NHU). As is evident from the episode titles, the *Zoo Quest* series concentrates on the fauna of a specific country or archipelago: *Zoo Quest to West*

Africa (ZQWA) in Sierra Leone; *Zoo Quest for a Dragon* (ZQD) in the Indonesian archipelago; and *Zoo Quest to Madagascar* (ZQM) solely in Madagascar. However, the *Planet Earth* series focuses on a particular ecosystem, frequently switching locations within each episode.

Given the systemic functional roots of critical discourse studies, we shall now consider the “context of situation” of these wildlife films (Malinowski 1946). This is crucial because these wildlife films are texts which make sense not only from ‘within the textual environment’ but also the ‘extra-textual context’ (Egins 2004, p. 85). Hence, these wildlife films ‘display continuity [...] with the contexts within which they take place’ (ibid, p. 85). We shall look at the specific genres of the *Zoo Quest* and *Planet Earth* films, then we shall consider the field, tenor and mode. Whilst field defines ‘what is [...] taking place’, tenor defines ‘the nature of the social relations’ and mode defines ‘the role language is playing’ (O’ Halloran 2005, p. 89). Film is a multimodal text, so mode must also consider the role that visuals and music are playing in the discourse. As we noted in the introduction, wildlife films are a dynamic genre and hence field, tenor and mode will have shifted significantly during this period.

Genre

The difference between the TEU and NHU production units highlights an important distinction in genre. The 1950s/60s data is a generic hybrid of white-man expedition, hunting film and wildlife film. Whilst the purpose of expedition films is ‘to conquer land, to mark nationality or find answers to scientific questions,’ the purpose of the hunting genre is ‘to depict the tracking and capturing of wild animals’ (Petterson 2011, p. 5). The 2000s data set are wildlife films which belongs to the “blue-chip” subgenre. The “blue-chip” subgenre focuses on ‘animal behaviour,’ ‘spectacular scenery’ and a ‘portrayal of the natural world as untouched by humanity’ (Fern, Nash & Leane 2014, p. 75). So despite the overarching genre of “wildlife films”, these texts differ greatly in their subgenre classification. Later, in the Language, Visuals and Music Sections I will explore how these generic

differences are instantiated in these texts.

Field

Both *Zoo Quest* and *Planet Earth* are films about animals, which is evident from the keywords (appendix I). Indeed, many of these keywords in both sets of data relate to nonhuman animals. However, in *Zoo Quest*, the wildlife films also include many keywords which relate solely to humans (*ancestors, Balinese, longhouse, temple, village*). These lexical items suggest that the field of these earlier wildlife films is also ethnographic. Hence, in *Zoo Quest*, Attenborough is not just introducing audiences to “exotic” animals, but also “exotic” peoples. In *Planet Earth*, however, the field has shifted from human landscapes to natural ones with keywords such as *arctic, caves, forest, grass, mountain(s), rivers, and sea(s)*. The field of *Zoo Quest* and *Planet Earth*, then, are predominantly animals, but the field is also consistent with the specific sub-genres (expedition/hunting and blue-chip) within which these wildlife films are situated.

The general communicative purpose of these wildlife films, as they fall within the genre of “documentary”, is to teach and inform and, given that these are films for a mass medium, to entertain. Bousé has thus characterised the wildlife film as ‘balance[d] precariously on a tightrope between two poles: science and storytelling’ (2000, p. 84). However, more specifically, the purpose of each series is clearly expounded by the discourse at the beginning of the films:

This is the story of another expedition led by him, [Jack Lester] which went to West Africa to look for the bird [picathartes], to film it on its nest, and to try and bring it back alive (*Zoo Quest to West Africa* 1955).

A month ago, Charles Lagus and I returned from spending 4 months in search of a dragon (*Zoo Quest for a Dragon: Episode 4* 1956).

This series will take you to the last wildernesses and show you the planet and its wildlife as you have never seen them before ('From Pole to Pole' 2007).

The purpose of the 1950s/60s films is to *search* for and *bring back* animals to the London Zoo. So, the *Zoo Quest* films switch between filming animals in their natural environment and closely scrutinising them in the TV studio. But in *Planet Earth*, the series wants to *show* animals in their natural habitats, and hence films animals in their ecosystem. In *Zoo Quest*, as befits the expedition/hunting genre, animals are represented as prizes of colonial expansion. However, in *Planet Earth*, animals have become a commodified visual product to be consumed by viewing audiences. This phenomenon has been recently labelled "eco-porn". Eco-porn 'work[s] to conceal [...] whatever impact humans may have had on [...] the animals they depict' (Lindholt 2015, p. 124), and this phenomenon is closely associated with the "blue-chip" subgenre.

Given that these wildlife films are aimed at a general TV audience both *Zoo Quest* and *Planet Earth* use standard, non-technical language. For example, Attenborough doesn't introduce the animals using their designated taxonomic names, as would a scientific paper on animal behaviour. Hence, popularised science involves a more 'personal [...] style' and 'subjective nature', which aims 'to translate abstract and theoretical facts into a form that appeals to and can be understood by the layperson' (Sommer 2000, p. 42). I would suggest however that *Zoo Quest's* "scientific" basis is, at best, weak. However, keywords such as *bite*, *jaws* and *spines*, all external morphological features, suggests a link to taxonomy, since external structures often 'assist in the correct identification of species and its generic placement' (Debeney 2012, p. 47). In *Planet Earth*, however, there is evidence

of ecological principles in the keyword clouds (*energy, grass, nutrients, plankton, predators, prey, water*).

Tenor

Attenborough's status as "expert" is emphasized in both the *Zoo Quest* and *Planet Earth* series. The 1950/60s data often begins with a shot of Attenborough sat behind a desk in the TV studio directly addressing the camera, before moving to shots on location. His representative role as part of the BBC institution is signaled not only visually (sitting behind a desk) and gesturally (upright posture), but also aurally (accent). Attenborough's RP accent is so pronounced in the *Zoo Quest* series that many informants in the questionnaires I issued failed to recognise the narration as his. In the 1950s/60s, 'BBC culture, like BBC standard English, was not peculiar to itself but an intellectual ambience composed out of the values, standards and beliefs of the professional middle class' (Burns 1977, p. 41). *Zoo Quest*, therefore, is directed at a conservative middle class viewership. However, in *Planet Earth*, Attenborough's "expert" status is signaled differently. In *Planet Earth*, the use of omniscient "Voice of God" narration interprets animal behaviour for the layperson. In both series, then, there is an unequal power relation between the text producers and the audience.

An audience research report from the BBC suggests that the final episode of the *ZQD* series was viewed by '50% of the adult TV public' (BBC Audience Research Department 1956, p. 1). Hence, an estimated 2.85 million viewers tuned in to watch this episode. *Planet Earth* attracted 33% of the TV public, with the first episode attracting 9.41 million viewers. As film is a mass medium, audience demographics – age, gender, education, class – will vary wildly. Therefore, these films will have been produced with an implied viewer in mind (Booth 1961). However, given the globalisation of Western media, explored in relation to wildlife films by Chris (2006), there has been a significant shift in audience demographic. Whilst *Zoo Quest* was aimed for audiences in the UK, *Planet Earth* would cast

an even wider influence. Indeed, Chris has shown that ‘televisual representations of animals’ have ‘proliferated [...] globally’ (2006, p 108). She argues that contemporary “blue-chip” wildlife films are ‘significant forces in the global media market’ (ibid, p. 207). So, whilst *Zoo Quest* was aimed at a national audience, *Planet Earth* was aimed at an international one.

The final episode of *ZQD* garnered high appreciation scores from the audience: 33% rated the programme A and 65% A+. Similarly *Planet Earth* received ‘the highest audience appreciation score of any British programme’ in 2006 (BBC 2006/07, p. 8). The audience research report for the final episode of *ZQD* also comments on the ‘fascinated gaze’ of viewers upon finally seeing the Komodo lizard (BBC Audience Research Department 1956, p. 2). Whilst, in the *Planet Earth* series, high levels of audience appreciation are partly due to Fothergill’s goal ‘to emotionally engage people in the natural world, and its dilemmas, stories and challenges the animals face’ (Lee-Wright 2010, p. 365). Both *Zoo Quest* and *Planet Earth* achieve high levels of affective involvement with audiences. However, I believe this is achieved through different means. Whilst audiences in *Zoo Quest* align with Attenborough and his “quest” for a specific animal, in *Planet Earth* the affective involvement aligns audiences with the animals themselves.

Mode

The mode of these texts are film. Film is a ‘temporally organised combination of visual and acoustic signs’ and is hence film is multimodal (Schmidt 2009, p. 218). The acoustic signs employed in films include language and music. Let us deal with each of these modes in turn. The language used in these wildlife films are categorised, counter-intuitively, as written discourse. However, the *Zoo Quest* series does occasionally feature shots in the TV studio with animals and keepers from the London Zoo, and these would be categorized as spontaneous spoken discourse. For the most part, however, the pre-planned nature of Attenborough’s monologic narration means that the discourse

will evince a higher level of lexical density and nominalisation, than in spontaneous spoken discourse.

There has been a shift in the application or expectation of extradiegetic music in wildlife films. In the 1950s/60s 'music in documentary films was permissible only if it was part of the film footage' (Jaramillo 2009, p. 150). Rogers locates this as a 'move towards a more observational aesthetic' in 1950s and 60s documentaries (2015, p.10). This is indeed the case with the *Zoo Quest* films, and often the only sounds that can be heard are diegetic ones: Attenborough rustling through the trees, the rev of the jeep, the sounds of the animals, the instruments played by local peoples. However, by the time of contemporary "blue-chip" wildlife films, audiences have come to expect the dramatic music associated with this genre. Indeed, Rogers concurs that extradiegetic music has been employed 'copiously [...] in films about [...] animals' post 1970s (ibid, p. 10).

3. Methodology

Data Collection

I will start with the data collection techniques for the language section, then move on to the visuals and Music Section. The historical wildlife films that I selected for this thesis were available through BBC iPlayer, whilst the *Planet Earth* series is available on DVD. I then transcribed these to create two (around 30,000 word) corpora (appendix II). Initially, I had aimed to use only a single series of *Zoo Quest*, spanning a single year as with *Planet Earth*, but this would have involved a large disparity in corpus size, so instead I decided to aim for a similar-sized corpus instead of synchronous time period. These transcriptions allowed me to approach my data using a quantitative approach. I deemed this as an important approach for a critical discourse perspective, as I could avoid the claim that I had cherry-picked the data. For the Lexis Section, I used the whole of the 30,000 word corpora in a keywords analysis. To create my keyword lists, I used the Wmatrix corpus software (Rayson 2003), comparing my corpora against each other and larger reference corpora. The larger reference corpora I have chosen for this study are the Lancaster-Oslo-Bergen corpus (1981-86) and the British National Corpus (2007). The LOB is a corpus of 1960s American written English, consisting of around one million words, and the BNC is a corpus of late 20th Century English, consisting of one hundred million words from written and spoken texts, though only the written sub-corpus was used in my analysis. For the Grammar Section, I looked at 500 clauses from each of the documentaries, drawing the data from the episodes ZQWA, ZQD2 and ZQM1 in *Zoo Quest* and *Pole to Pole, Fresh Water and Jungles* in *Planet Earth*. Although not comprehensive, I felt that 500 clauses would be enough of a representative selection to show how these documentaries differed in their employment of grammar. These 3 episodes amounts to around $\frac{1}{4}$ of the data from each series. Sommer's (2000) research into primate representations in National Geographic articles, too, uses $\frac{1}{4}$ of the data for grammatical analysis.

The Visuals Section was slightly different, and it was necessary for me to take a more qualitative approach. Whilst possible quantitative approaches to visual semiotics have been explored by some linguists, this approach is still in its infancy. Baldry and Thibault (2006), for example, explore the possibility of integrating visual semiotics into multimodal corpora. But, for practical reasons, like ‘extensive manual analysis and tagging’, it would not have been possible for me to analyse the visuals from every episode of *Zoo Quest* and *Planet Earth* (ibid, p. 170). So, instead I focused on a single episode of *Zoo Quest* (ZQM4) and *Planet Earth* (PE10). Hence, I watched both episodes and noted down the visual representation of each animal that appeared. Given that film is a dynamic medium, this still produced reams of data. I then collected stills from these episodes to illustrate my areas of focus: gaze, angle and framing.

Lastly, the Music Section. As I mentioned above, the problem with *Zoo Quest* was that there were very few examples of extradiegetic music. Hence, I was limited to the few scenes where extradiegetic music was employed, and they ranged across a variety of episodes in the *Zoo Quest* series. Given that this approach was necessarily more qualitative and unlike the other sections, I decided to focus on similar (or same) species. Hence, the few examples of extradiegetic accompaniment in *Zoo Quest* (comet moth metamorphosis, gabon viper, chimpanzee) were matched with similar scenes in *Planet Earth* (cicada metamorphosis, snakes, chimpanzees). For this section I also created a questionnaire to analyse how the music affected audience responses to the animals on screen. I chose 6 clips, fully detailed in the Music Section, asking the informants to watch the clip, and then answer the questions. The clips, which were around 1 minute in length, were shown twice to the informants when music was played, and once when music wasn’t. For each clip, I collected 10 responses (5 with sound and 5 without sound). I designed two questionnaires: one which included questions about the music the informants had heard (appendix III), and one which included the same questions but without the Music Section (appendix IV). I included the Music

Section last as I wanted to get the informants to respond more generally to the clip, before focusing on the music. I felt that including questions about the music first may lead informants to question whether the music was emotionally manipulating them, and they would therefore answer subsequent questions with a critical awareness. The questions I designed were loosely based on the questions posed by Tan, Spackman and Wakefield (2008), because their focus, like mine, was on differing audience interpretations of a scene from a film, though their study focused on the difference between diegetic and extradiegetic music. Hence, the questionnaire was largely my own design, though the informed consent form was adapted from Johnstone (2000).

Data Analysis

In order to look at these different semiotic resources, it has been necessary to draw on a wide range of methods. Indeed, Ensslin has suggested that 'multimodal analysis is [...] based on a malleable analytic toolkit' (2012, p. 120). Therefore, I have drawn frameworks from corpus linguistics, critical discourse studies, and multimodal discourse studies, all of which are grounded in a systemic functional approach. Van Leeuwen has suggested that a 'semiotic purism' has persisted in academic disciplines, for example, 'linguistics to talk about speech' and 'musicology to talk about music' (1999, p. 1). However, this has changed with multimodality. Linguists such as O'Toole (1994) and Kress and Van Leeuwen (1996), and Van Leeuwen (1999) have adapted frameworks from linguistics that can be applied to visual semiotics and music. It is these frameworks that I shall be employing in this thesis. As with the data collection section, I shall look at the frameworks for each section in turn: language, visuals and music.

Section 4 (language) will be broken down into Lexis and Grammar. Lexis will be explored using a corpus-based keywords approach. Keywords were chosen as an appropriate method, because, unlike raw frequency lists, 'a keyword list [...] gives a measure of *saliency*' (Baker 2006, p. 125 –

original emphasis). In other words, a keyword list will be compiled using a statistical significance test, which highlights salient words whilst avoiding skewed results. Wmatrix (Rayson 2003), which uses the log-likelihood chi-squared statistical tests, allows us to compare our small corpora with each other, and larger reference corpora to analyse words that are referred to more than “normal” in our data sets. Keywords ‘are significant for critical discourse analysis as they [...] reveal certain ways of presenting information’ (Qian & Tian 2014, p. 81). In our case, certain ways of representing animals. Also, the use of data-driven keywords analysis is perhaps a step towards mitigating the frequent criticism that pervades critical linguistic analyses, where ‘linguistics is [...] really only a supplement to the prior political reading the analyst has made’ (Simpson 1993, p. 114). Hence, keywords offer a data-driven analysis of our texts, allowing us to explore the “about-ness” of these wildlife films (Scott 1999), and importantly which categories are used to define animal beings.

Grammar will be explored using the Hallidean (2004) transitivity model. Halliday (2004) identifies six process types: material, mental, verbal, relational, behavioural, and existential. A brief overview of these process types is given below:

Process	Description	Participants
Material	processes of doing	Actor, Goal
Mental	processes of sensing	Senser, Phenomenon
Verbal	processes of saying	Sayer, Target
Relational	processes of being	Carrier, Attribute; Token, Value
Behavioural	processes of behaving	Behaver
Existential	processes of existing	Existent

Some of these process types can be further delimited. For example, mental processes can be sub-categorised into perceptive, cognitive, desiderative and emotive processes. Clausal analyses thus

focuses on the processes, the participants, and other circumstantial elements. These constituents ‘convey semantic aspects [...] that are of significance for the interpretation of the text’ (Nørgaard 2003, p. 88). Nørgaard’s exposition on the application of systemic functional linguistics to literary analysis convincingly argues that despite the complexity of Halliday’s system, the functional labels, like “Actor” and “Senser” instead of “Subject”, allows analysts to ‘know something about the [...] participant as regards the way “the world” is encoded by the text’ (ibid, p. 88). Thus, transitivity analysis has been ‘a popular part of the analytic toolkit of work within the critical linguistics’ and stylistic tradition (Simpson 1993, p. 104). So, grammar, like lexis, helps to construct the text producer’s view of reality, and ‘by analysing the grammar of a specific discourse one can gain insight into the author’s theory of reality’ (Sommer 2000, p. 53). Grammar then allows us another critical insight into the representation of animals in these wildlife films, and, since grammar roughly encodes who is doing what to whom, our focus will be how these animal participants interrelate.

Section 5 (visuals) will be explored using analytical approaches first developed in film theory, but adapted to a systemic functional perspective by Kress and Van Leeuwen (1996). Before beginning it is worth noting O’Halloran’s caution that ‘the difficulties of accessing and annotating dynamic audiovisual media such as [...] film are manifest’ (n.d., p. 3). Thus, I have deemed both the exhaustive metafunctional analytical approach (O’Halloran 2004) and the multimodal corpus approach (Baldry & Thibault 2006) too extensive to be explored adequately in this thesis. However, given the importance of visual representation in film, I felt it was crucial not ignore this component of meaning-making. Using Kress and Van Leeuwen’s (1996) outline, we will focus on Gaze, Angle and Framing. An overview is given below:

Gaze	
Demand	gaze at the viewer

Offer	absence of gaze at the viewer
Angle	
Frontal angle	involvement
Oblique angle	detachment
High angle	viewer power
Eye level angle	equality
Low angle	represented participant power
Framing	
Close shot	intimate/personal
Medium shot	social
Long shot	impersonal

Kress and Van Leeuwen break down these realisations into systems of ‘contact’ (gaze), ‘attitude’ (angle), and ‘social distance’ (framing) (1996, p. 153). However, in their analysis of visual narrative in children’s fiction, Painter, Martin and Unsworth (2014) label all these realisations as functions of point of view (or focalisation), as I shall in this thesis. Unlike the above section (language) which focuses on the ideational metafunction, this framework focuses on the interpersonal metafunction which is the relation between ‘the viewer and the object represented’ (Kress & Van Leeuwen 1996, p. 41). But, as Kress and Van Leeuwen have clarified, this relationship is itself merely a representation. Indeed, ‘when images confront us with friendly smiles or arrogant stares we are not obliged to respond’ (ibid, p. 121). Hence, in the visual mode, ‘social relations’ are ‘*represented rather than enacted*’ (ibid, p. 121). Finally, whilst Kress and Van Leeuwen’s (1996) model was developed using static images, their model is also often used to approach dynamic visual images. As O’Halloran has suggested, ‘the usefulness of such an approach is that the analyst becomes sensitized to meaning through choices in visual semiosis’ (2004, p. 127). This study, then, will apply this

framework to compare key visual representations of animals, and will illuminate how focalization affects their representation.

Section 6 (extra-diegetic music) will be explored using Van Leeuwen’s framework (1999) and informant response feedback. Stilwell (2001), like Van Leeuwen (1999), has argued for an integrated approach to the filmic “soundscape”, which she includes as music, speech and sound effects.

However, unlike Stilwell (2001) and Van Leeuwen (1999) and despite Attenborough’s narration being extradiegetic, I have drawn a distinction between music and language. This is because I agree with Zbikowski that ‘language and music have different functions’ within films (Zbikowski 2009, p. 364).

Hence,

While the range of language functions is broad, primary among these is the use of symbolic tokens to direct the attention of another person to objects and relations within a shared referential frame. Music, by contrast, provides sonic analogues for a wide range of dynamic processes that are marked in human experience, especially those associated with the regulation of emotions (ibid, p. 364).

So, I felt it was necessary to separate these two semiotic systems in order to focus on music and language’s separate functions. Van Leeuwen’s framework (1999), then, focuses on six domains: perspective, time, interacting sounds, melody, voice quality and timbre, and modality. A brief outline is given below, though I do not include modality as it does not feature in my analysis:

Perspective	Time	Interacting sounds
figure	measured	sequential
ground	unmeasured	simultaneous

field		<ul style="list-style-type: none"> - unison - plurality - dominance
Melody	Voice quality and timbre	
pitch movement	tense/lax	
pitch range	rough/smooth	
pitch level	breathiness	
	soft/loud	
	vibrato/plain	

I have employed description from whichever domain is salient for each piece of extradiegetic music. As noted in the introduction, music does not “represent” the way language and visuals do. Van Leeuwen has suggested music itself ‘can only represent the actions of people, places and things’ (Van Leeuwen 1999, p. 93). Sound therefore ‘only ha[s] verbs’ whilst ‘the nouns are inferred, not stated’ (ibid, p. 93). Indeed, as a semiotic resource, the extradiegetic music employed in these wildlife films cannot signify the animal participants themselves. Van Leeuwen has suggested, however, that ‘the meaning is made more concrete [...] through the images or dramatic action it accompanies’ (ibid, pp. 93-94). As such, unlike the language and Visuals Section, employing Van Leeuwen’s framework (1999) only really describes the music, and not the represented animals. To this end, informant response feedback is used to supplement this framework. We noted in the introduction that “auteurist” approaches prevailed in film music interpretation, for example John Williams’ music scores. Indeed, Slowik has argued that ‘audience’s [...] responses to film music is seldom’ explored (2014, p. 8). However, “auteurist” approaches frequently failed to take account of audience interpretations of the represented participants, in our case animals. To show how music affects interpretation of these animals, I have employed audience response feedback. This will

highlight the function of extradiegetic music to affectively involve audiences.

4. Language

The first of the semiotic resources we will be looking at is language. Language is ‘the most sophisticated and elaborate of all [...] semiotic systems’, which ‘involves sets of meaningful choices’ (Egins 2004, p. 15). Despite systemic functional linguistics’ holistic approach, I have separated this section into lexis and grammar as does Fairclough’s (1989) framework for discourse analysis. I have done so, because I believe that the function of lexis in discourse should be considered separately to the function of grammar. Egins has stated that ‘systems of lexical choice involves recognising that words encode meaningful oppositions’ (Egins 2004, p. 16). And, as Tucker has stated, ‘if the difference [...] between the active and passive is explained in terms of the social semiotic, so must the difference between *chair* and *stool*, between *give* and *donate*’ (1998, p. 2). These highlight not the cohesive function of lexis in discourse, but its classificatory function. Indeed, as Sommer has suggested ‘the categorisation of reality is one of languages main functions’ (2000, p. 123). But given that ‘our lexicon is defined by our vision of the world, which rests on cultural [...] background’, it is possible to see by extension lexis’ ideological function in discourse (ibid, p. 123). Given that this research is attempting a discourse analysis, albeit from a multimodal perspective, I feel the classificatory function of lexis is particularly salient and should be analysed separately from grammar. As with the lexis we shall be looking closely at the function of grammar in these wildlife films. The function of grammar is not solely to construct ‘our universe of things’ but also and very importantly ‘their interrelations’ (ibid, p. 53). In the Grammar Section (Section 4.2), this study will discover not only the interrelations between animal participants, but also which animals ‘are represented as having agency and power’ (Baker & Ellece 2011, p. 153).

4.1 Lexis

Looking at the keywords (appendix I), produced using Wmatrix software (Rayson 2003), it becomes

clear that there is not adequate space to explore every single key lexical item. Hence, I will explore a number of key concepts highlighted by cross-referencing the *Zoo Quest* and *Planet Earth* lists.

Indeed, Baker suggests that ‘comparing a smaller corpus [...] to larger reference corpus is [...] a useful way of determining key concepts across the smaller corpus as a whole’ (2006, p. 139). The keywords approach, then, has shed light on three key concepts that I will be exploring:

- Animals and other Superordinates (keywords: *animal, animals, creature, creatures*);
- Attack and Defence (keywords: *bite, hunt, jaws, predators, prey, spines*);
- Juvenile Animals (keywords: *babies, calf, chicks, cub, cubs*);

As we mentioned in the introduction, a crucial point to consider is that a sign does not remain static through time. For example, the lexical item *animal* is likely to have a different “‘aura of meaning” (Stewart 2010, p. 3) in the 1950/60s compared with the 2000s. Because of this fact I am not solely interested in which categories have been chosen by *Zoo Quest* or *Planet Earth*, though I do consider this. But, when the lexical items are present in both corpora, I will also consider the ‘relationship between the lexical item and environment’ (Stewart 2010, p. 4), known as semantic prosody. The corpus-based approach I have chosen also lends itself to this focus, as ‘semantic prosody is best revealed [...] by corpus investigations’ (Stewart 2010, p. 79). Hence, the below analyses will be informed by lexical semantics or “the meaning” of these keywords in context. Ensslin has suggested that ‘multimodal analysis typically looks at denotational and connotational meanings’ (2012, p. 120). Therefore, I will explore the denotation and connotation of these lexical items, exploring the definition, modification (both pre- and postmodification) and, where appropriate, their collocational preferences. Given the denotational and connotational meaning, I will then focus on how these chosen categories represent animals, thereby highlighting the underlying ideologies of these texts.

4.1 (1) Animals and other Superordinates

Looking at the keywords lists, what becomes clear is that, with the exception of *monkeys*, there are no specific animal groups that are highlighted as salient in both *Zoo Quest* and *Planet Earth* when compared with their reference corpora – LOB and BNC respectively. Because of this, it is perhaps best to consider the lexical items at the level above these co-hyponyms: the superordinate terms. These superordinate terms include the lexical items *animal(s)* and *creature(s)*, which are highlighted as keywords, and their synonym *beast(s)*. Considered on its own, we would not look at the lexical item *beast(s)*, due to its low keyword scores: *beast* (#2210 with LL2.89) and *beasts* (#3463 with LL0.56). But as part of the above lexical category, I think it is worth considering. The occurrences of these superordinate items are listed below with their keyword scores:

<u>Zoo Quest</u>		<u>Planet Earth</u>	
animal	30	animal	17
animals	72	animals	55
creature	32	creature	5
creatures	38	creatures	29
beast	2	beast	0
beasts	1	beasts	0

The following analyses will look at how the superordinate lexical item *animal(s)*, *creature(s)* and *beast(s)* are used in *Zoo Quest* and *Planet Earth* comparatively.

Animal(s)

Firstly, let us consider the denotational meaning of this lexical item. An *animal* is ‘a living organism that can move about of its own accord and has specialised sense organs and nervous system’ (OED Online 2015). As a lexical item, the term *animal(s)* thus incorporates any sentient being, including human beings, unlike the semantically narrower synonyms *creature(s)* and *beast(s)*. Like all superordinate terms, *animal(s)* defines a very general category. Indeed, its Latin cognate *animalia* corresponds with the taxonomic classification of lifeforms on the Planet. In so classifying, the superordinate *animal(s)* aggregates all those that come under it. This perhaps manifests itself in both corpora as the lexical item is premodified by quantifiers. In *Zoo Quest*, these include *any*, *many*, *lots of*. However, they are more proliferate in the *Planet Earth* corpus, including words such as *all*, *few*, *many*, *2 million*, *most*, *some*, and *only*.

Of the quantifiers used in both the *Zoo Quest* and *Planet Earth* corpus, all of them are indefinite quantifiers. And some, which appear quite specific, turn out not to be: *2 million* is modified by adverb *nearly*. This is known as aggregation in critical discourse studies. When text producers aggregate, they give ‘the impression of objective research and scientific credibility, when in fact we are not given specific figures’ (Machin & Mayr 2012, p. 84). In this instance, these indefinite quantifiers help to ‘regulate practice and manufacture consensus opinion’ on animals in general, ignoring that there are always animals that do not fit the general pattern (van Leeuwen 2008, p. 37). For example, in the *Planet Earth* corpus, the statement that ‘all animals, rare or common, ultimately depend for their energy on the sun’ is not true (‘From Pole to Pole’ 2007). Indeed, as the *Planet Earth* wildlife films themselves prove, there are deep sea colonies of squat lobsters and crabs that draw on energy derived not from the sun but from fissures in the earth’s crust. Here, the use of quantifiers with the keyword *animal(s)* in both *Zoo Quest* and *Planet Earth* seemingly imposes control over the lexical item, presupposing that it has the ability to capture the complexity of all animal life. As with the taxonomic system, this control is a prevalent anthropocentric fallacy.

The lexical item *animal(s)* thus ‘gathers a multiplicity of different species and members of species [...] into the sameness of a single word, [...] blurring differences in favour of one unifying term’ (McCance 2013, p. 58). However, as with all general categories, some beings will be considered more prototypical members of the animal group, because they fulfil the central criteria of that category better than others (Rosch 1973). For example, cats are extremely prototypical animals whereas microscopic “drifting” zooplankton are not. In *Zoo Quest*, this is made explicitly clear in one example: ‘you can see [...] from this [bat’s] wing, which I’m holding out, that really this is just like a normal animal whose hand has been extensively modified’ (*Zoo Quest for a Dragon: Episode 4* 1956). Using the premodifying adjective *normal* suggests an animal who has deviated from a prescribed norm. Is there such a thing as a “normal animal”? Indeed, if “normal” animals are those which possess hands, then this really only includes primates. However, if we consider “hands” an anthropocentrism which differentiates the front limbs from the back, and hence an example of structural anthropocentrism (Spender 1980), then we could extend this to four-limbed animals. But what about insects or fish? The bat is certainly not a prototypical member of the mammalian order, because of its ability to fly (Rosch 1973). But this hints at an underlying ideology in *Zoo Quest* that the “normal” animal is one which shares a discernible “hand-like” appendage, thereby using the human form as the prototype for an animal. Indeed, perhaps the “highest” form that an animal being might aspire. Comparatively, there are no examples in *Planet Earth* that emphasise the prototypicality of represented animals.

Next, we shall move on to the connotational aspects of *animal(s)* as manifested by their premodifiers and postmodifiers. In the *Zoo Quest* corpus, there are many pre-modifying adjectives: *adult, affectionate, baby, beautiful silver and grey, big, charming, desirable, fully-grown, higher, large, four-legged, little, modern, mythical, nocturnal, normal, rare, small, unpleasant, unpredictable, voracious, wild, wise* and *young*. Some of the premodifiers of *animal(s)* highlight a specific eco-niche, such as *land* and *forest*. Postmodification of the lexical item *animal(s)* using the copula BE includes only the adjective *unique*. There are also a number of restrictive relative clauses which act as

postmodifiers: *animals that were on the ship's deck*; *animals that we wanted*; and *animals who understand the principles of medicine*. There are also some occurrences of postmodification using to-infinitives: *animals to be caught*, and *animals to be found*. The *Zoo Quest* corpus also contains the coordinated noun phrase *animals and monsters*.

In the *Planet Earth* corpus, *animal(s)* is pre-modified by adjectives *abundant*, *big* (2), *colonial*, *least-known*, *large* (4), *little*, *small*, *thirsty* and *resourceful*. Like the *Zoo Quest* corpus, it are also pre-modified by nouns which locate them within a specific eco-niche: *Himalayan*, *forest*, and *desert*. Postmodifications of animals via copula BE include *clumsy*, *rare*, *scarce* (2), *difficult to glimpse*, *expert*, and *immune to hunting by man*. We also have a number of restrictive relative clausal postmodifications: *the biggest animal that exists or has ever existed*; *any animal that lives in a cave*; and *animals that travel through this land*. The lexical item *animal(s)*, like *Zoo Quest*, also occurs in coordination with other nouns: *plants* as in *plants and animals*, and *animals and plants*.

Comparing adjectival modification in these two corpora, the adjectives in the *Zoo Quest* corpus are rarely just descriptive (*large*, *four-legged*). Often, they emphasise awe (*mythical*), developmental stages (*adult*, *baby*, *full-grown*), taxonomic hierarchy (*higher*, *modern*), and aversion (*unpleasant*, *voracious*, *wild*). Of the adjectives which appear to be ameliorative (*beautiful*, *wise*, *charming*), closer inspection of the context suggests that they are actually tongue-in-cheek. For example, 'the people told us that they[sifakas]'re very wise animals who understand the principles of medicine [...] A charming story but one as yet uncorroborated' (*Zoo Quest for a Dragon: Episode 1* 1956). Here, the context makes it clear that this is to be taken as ironic. However, in the *Planet Earth* corpus, whilst adjectives can be solely descriptive (*big*, *colonial*, *large*, *little*, *small*), they also encourage sympathy (*thirsty*), or respect (*resourceful*, *expert*), and highlight a wider ecological concern (*immune to hunting by man*, *rare*, *scarce*).

Postmodification using restrictive relatives and to- infinitives also plays an important role in the connotations that the lexical item *animal(s)* has in both *Zoo Quest* and *Planet Earth*. In the *Zoo Quest* corpus, animals are represented as passively awaiting capture (*animals to be caught, animals to be found*), at the whim of human desire (*animals that we wanted*), and existing in man-made structures (*animals that were on the ship's deck*). However, the *Planet Earth* corpus uses processes that represent animals as active (*animals that travel through this land*), or merely highlight the existence of said animals within a specific eco-niche (*the biggest animal that exists, any animal that lives in a cave*).

In sum: the adjectival modification has changed dramatically from *Zoo Quest* to *Planet Earth*. The *Zoo Quest* adjectival modification is concerned with categorising (developmental and hierarchical), and frequently highlights the non-humanness of the lexical item *animal(s)* through adjectives that connote awe and aversion. Although, the *Planet Earth* corpus does not draw the lexical item *animal(s)* within the realms of “human”, avoiding anthropomorphism, it does offer adjectives that connote an increased empathy with animals. As Fischer has observed ‘in light of humankind’s growing awareness and sensitivity’ *animal(s)* ‘is presently experiencing re-interpretation, from “beast” into “fellow creature”’ (1999, p. 176). Postmodification in *Zoo Quest* highlights the passivity of the represented animals and their existence in man-made structures, whilst *Planet Earth* does exactly the opposite.

Creature(s)

Again, we will start with the denotation of the lexical item *creature(s)*. A creature is ‘a living being, in particular an animal as distinct from a person’ (OED Online 2015), and is thus semantically narrower than the lexical item *animal(s)*. Like the above lexical item, *creature(s)* in both *Zoo Quest* and *Planet Earth* is premodified by indefinite quantifiers, which shows the same tendency towards aggregation

as the lexical item *animal(s)* does. However, with *creature(s)* in *Zoo Quest* and *Planet Earth*, the lack of prototypicality of this item is highlighted by increased occurrences with the premodifier *strange* instead of *normal*, with four instances in *Zoo Quest* and one in *Planet Earth*. This suggests that this lexical item has a semantic prosody that is more amorphous, seemingly less clearly defined, than *animal(s)*. Indeed, *creature* can refer to real animals, but also fictional. There is thus more fluidity with the lexical item *creature(s)* than *animal(s)*. This fluidity is evinced in both *Zoo Quest* and *Planet Earth*.

Let us look more closely at the *Zoo Quest* and *Planet Earth* corpora to see the ways that *creature(s)* is employed. Below I have given sample concordances of *creature(s)* from the *Zoo Quest* and *Planet Earth* corpora:

was a real joy to meet these bold creatures , even if they did do their best t

o flight . The wing-span of these creatures is several feet across <TS: 24:00>

t there are none of these African creatures there . Instead Madagascar has a f

has a fauna entirely of its own : creatures that live nowhere else in the worl

live nowhere else in the world . Creatures with strange names like aye-aye an

from *Zoo Quest*

e: general (creatures)> all other creatures have fled , because <Fauna type: r

number is falling . Like so many creatures , the cats have been pushed to the

th the flood collect any drowning creatures the birds may have missed . Its a

seen , a lush water world . Some creatures are completely at home here . <Fau

e to these highlands . These rare creatures are usually very shy . But , they

from *Planet Earth*

The *Zoo Quest* concordances show just as great a range of premodifying adjectives as the concordances for *animal(s)*. These include: *beautiful, big, bold, cowardly, destructive, fascinating (4), fierce, gentle, handsome, interesting, little (4), pleasant, primitive, remarkable, small, splendid, strange (4), pure white* and *wild*. We also have a number of modifying adjectives derived from other animal nouns: *worm-like, ostrich-like* and *monkey-like*. When we look at postmodification we have the restrictive relative pronouns *that* and *which*. Some examples include: *creatures that live nowhere else in the world; the sea creatures that you can find round our own shores; the creatures (that) we particularly wanted; many other fascinating creatures which were supposed to occur in this forest*. There are also some to- infinitives postmodifying the noun *creatures*: *many other fascinating creatures to be seen in that patch of forest; most fascinating creatures to keep*. We also have occurrences of the lexical item with prepositional postmodification, such as *one of the most remarkable creatures in the world; other creatures in the world*.

When we compare this to the *Planet Earth* corpus, we notice that the amount and type of premodifying adjectives are quite different: *bewildering, shrimp-like, microscopic, miniature, mysterious, rare, specialised, and strange*. The postmodification is also different from *Zoo Quest* with *that* being the only restrictive relative pronoun being used: *creatures that live in the torrent; shrimp-like creatures that begin to swarm here; any drowning creatures (that) the birds may have missed*. There aren't any to- infinitives postmodifying *creatures* in the *Planet Earth* corpus. However, we do have occurrences using prepositional postmodification: *near microscopic creatures of the sea; creatures of the forest; the creatures of India's Teak forests*.

If we consider the premodifying adjectives in *Zoo Quest*, they express aversion (*cowardly, destructive, fierce*), deviance (*strange*), awe (*beautiful, fascinating, interesting, remarkable, splendid*), and condescension (*bold, handsome, little, pleasant, primitive*). The premodifying adjectives in the *Planet Earth* corpus, however, are similar to those as described for the lexical item *animal(s)* (i.e. they are mainly descriptive, sympathetic, respectful or ecologically aware). But, in *Planet Earth*, similar to *Zoo Quest*, there is perhaps increased emphasis on awe (*bewildering, mysterious*), and deviance (*strange*), which suggests that this lexical item is more pejorative than *animal(s)* in both corpora. Hence, there are some similarities, as awe and deviance are highlighted in both corpora, but aversion and condescension are uniquely present in the *Zoo Quest* corpus. Comparatively then the *Zoo Quest* premodifying adjectives for *creature(s)*, like that for *animal(s)*, are loaded with a far greater negative semantic prosody than the *Planet Earth* corpus.

Let us consider a group of premodifying adjectives more closely. Both *Zoo Quest* and *Planet Earth* use adjectival forming suffix *-like* with common animal nouns in order to premodify *creatures*, for example *worm-like*. Whilst its use in *Planet Earth* may be innocuous for animals that are not visible to the eye like krill (*shrimp-like*), or in *Zoo Quest* for animals that became extinct long ago (*ostrich-like aepyornis*), which thereby helps viewers to visualise the animal, it perhaps isn't so innocuous in the other examples found in *Zoo Quest*. The use of *monkey-like* in the *Zoo Quest* corpus is used in reference to lemurs: 'all of them strange, primitive, monkey-like creatures that live nowhere else in the world' (*Zoo Quest to Madagascar: Episode 1* 1961). In accordance with our systemic functional approach, Hamawand has suggested that 'the choice of a suffix is motivated by perspective' (2011, p. 198). Indeed, Hamawand suggests that the choice between adjectival forming *-ish* and *-like* highlights the difference between *vice* and *virtue*. To say someone is *childish* aligns them with vice; to say someone is *childlike* aligns them with virtue. I would argue that a similar alignment is occurring in this example. The lemurs are here aligned with the virtues of the more "highly" evolved

monkeys. Hence, instead of illustrating convergent evolution, where two species evolve along similar lines, lemurs are considered more “primitive” than monkeys. Here, the reality is eschewed to underline *Zoo Quests* underlying ideology that taxonomic hierarchy is an important way of defining an animal. *Planet Earth*, on the other hand, uses this premodifying adjective in order to define the invisible with visible larger relatives, and hence is more innocuous and descriptive.

In *Zoo Quest*, to read the above *-like* adjectives as not value-laden but merely a strategy of defining the unfamiliar with the familiar, I think would be a mistake. In the postmodification, too, we see a similar process: *very like the sea creatures that you can find round our shores*. Here the possessive determiner *our* and its corresponding term *their* highlight an important imperialist ideology underlying the *Zoo Quest* series. Indeed the lexical items *us* (the first person plural pronoun) and *them* (third person plural pronoun), of which the above possessives are derived, are highlighted as keywords in *Zoo Quest*. More eloquently put: ‘the power of imperialism’s ideology is self-perpetuated by the [...] all-invasive concept of “us” and “them” (Herbert 2007, p. 103). Comparatively, inclusive plural pronoun *we* is used frequently in *Planet Earth* highlighting an opposing holistic ideology.

This can also be witnessed in *Zoo Quest* and *Planet Earth* with the use of postmodifying prepositional phrases: *creatures in* and *creatures of*. As both postmodify the noun and belong to the noun phrase, the difference between *creatures in* (*Zoo Quest*) and *creatures of* (*Planet Earth*) is not structural, but semantic. Whereas *creatures in* relates to a ‘position or location’ (OED Online 2015), suggesting an inconsequential link between animal and its environment, *creatures of* suggests an animal belonging and integrated within a particular eco-niche. In *Zoo Quest*, I believe this is done to show that the animals that are endemic to these regions (Madagascar, Indonesia, Sierra Leone) are happily displaced – I shall explore this further in the Music Section with Jane the chimpanzee. In *Zoo Quest*, I believe *creature(s)* ‘are [...] aligned with the natives, inhabitants of the land whose claim trumps that

of the colonizers' (Vint 2010, p. 121). However, as I suggested in the methodology, the imperialistic ideology in the *Zoo Quest* films is no longer one of political control, but of putative cultural and scientific "superiority". In *Planet Earth*, the animal's sense of belonging is represented as integral to their eco-niche, and hence highlights the underlying ecological discourse.

Beast(s)

Before we consider the above lexical item, a point worth considering is that *creature(s)* in both the *Zoo Quest* and *Planet Earth* corpus seems to refer to any kind of animal (mammals, primates, reptiles, birds, fish), and therefore acts like a synonym for *animal(s)*. But, with the lexical item *beast(s)*, the occurrences refer to extinct animals (a large lemur, archaeoindris, and an elephant bird, aepyornis) and a "primitive" animal called a tenrec, which is similar to a hedgehog. So, although *beast(s)* is also considered a synonym for *animal(s)*, *beast(s)* is perhaps a semantically narrower term than either of the above. Historically, 'both terms [*animal(s)* and *beast(s)*] overlapped', however, over time 'beast [...] gave way to animal in the sense of "any living creature", whilst beast was gradually reduced to denote larger domesticated animals, monsters and fabulous creatures' (Garcia 2007, p. 142).

Let us now consider the connotational aspect of this lexical item. We have only three occurrences of *beast(s)* in the *Zoo Quest* corpus, and none in the *Planet Earth*:

out even such an inoffensive little beast as this . <TS: 24:00> Many men parti

l , must have been a really strange beast . But of all the surviving species ,

he home of really strange fabulous beasts and Marco Polo 700 years ago believ

As a lexical item, *beast(s)* certainly feels quite archaic, and in part this may explain its exclusion from the *Planet Earth* corpus. Of the three occurrences in the *Zoo Quest* corpus, two refer to animals that had become extinct, the elephant bird around 1000 years ago, and the giant lemur before that. Both of these occurrences are premodified by the lexical items *really* and *strange* (and *fabulous*). These lexical items with adverbial intensifier aim to construct the monstrous aberrant nature of these animals. This is further confirmed if we look at an extended context:

Indeed before Europeans ever went to the island it had a reputation of being the home of really strange fabulous *beasts* and Marco Polo 700 years ago believed that it was the home of a fabulous bird, the rukh. The rukh which carried off Sinbad the Sailor and which was reputed to be able to carry off elephants in its talons (*Zoo Quest to Madagascar: Episode 1* 1961).

In fact millions of years ago, there were many more types of lemur than there are found today, including a monster that was almost the size of a donkey, which, since it presumably had a long furry tail, must have been a really strange *beast* (*Zoo Quest to Madagascar: Episode 4* 1961).

In these extended contexts it is clear that myth, legend and superstition collide in the representation of these animal beings. The elephant bird, based on Marco Polo's account of the *rukh* in his travel-writing, was *able to carry off elephants in its talons*; the extinct lemur is described as *a monster*. However, as later mentioned in ZQM1, fossil evidence of the elephant birds had been found by scientists. The same can be said of archaeoindris, though this is not explicitly stated in the *Zoo Quest* films. In mixing myth, legend and superstition with the description of these extinct animals, we move from the stable grounding of zooarchaeology to cryptozoology. This seems a strange alignment

considering that these animals most definitely existed and are not fabulous monsters.

Here, the monstrosity of these extinct animals signalled by the use of lexical item *beast(s)* is highlighted as their “downfall” in evolutionary terms. In these contexts, the extinct animal beings are being represented as too monstrous to have continued existing, and hence the aberrant nature of these animals is erased in a ‘Lamarckian view of evolution’ (Bowdoin Van Riper 2002, p. 81). This view ‘lends itself to morality tales’ by representing evolution ‘as linear and progressive’ (ibid, pp. 81-82). Indeed, Bowdoin Van Riper (2002) has suggested that the Lamarckian view of evolution is found frequently in the popular science genre amongst which we can locate these wildlife films. Hence, these formerly dominant and monstrous animal species are replaced by the “goal” of the evolutionary process: “civilised” humans (ibid, p. 82).

The use of *beast(s)* in *Zoo Quest* thus underlines its anthropocentric ideology. Here, Lamarckian evolution is used to depict animals that are ‘driven [to extinction] by internal, not external forces’ as ‘nature’s penalty for [...] lack of ambition or will’ or aberration as in *Zoo Quest*’s corpus (Bowdoin Van Riper 2002, p. 81). In *Planet Earth*, the lack of occurrences of the lexical item *beast(s)* I believe is to avoid aligning living or extinct animals with aberrant monstrosity, and therefore a more external Darwinian view of evolution is employed. When “strange creatures” are mentioned in *Planet Earth*, it is made clear that external environmental factors have led to such lifeforms. For example, in PE09, the physical adaptations of troglodytes are prefaced with these factors: ‘Many caves are like islands, cut off from the outside world and from other caves. This isolation has resulted in the evolution of some very strange creatures’ (‘Caves’ 2007).

4.1 (2) Attack and Defence

The next group of keywords we will be focusing on are the attacking and defensive morphological

features of the represented animals. These are highlighted as keywords particularly in the *Zoo Quest* corpus (*bite, jaws, spines*). I have also extended this to include other attacking and defensive morphological features, because I feel this makes up a significant semantic domain in the *Zoo Quest* corpus, which includes the lexical items *claws, fangs* and *sting*. I have given the occurrences of these lexical items along with their synonyms below:

<u>Zoo Quest</u>		<u>Planet Earth</u>	
bite/nip	14/2	bite/strike	3/7
jaws/mouth/mouthparts	10/9/1	jaws/mouth	3/5
spines	10	spines	0
claws	4	claws	1
teeth/fangs	7/3	teeth	2
sting	6	sting	0

What is initially startling is that there are far more references to attacking and defensive morphological features in the *Zoo Quest* corpus (59) than the *Planet Earth* corpus (17). This is perhaps due to a shift in the focus of the represented animal beings. Whereas in the *Zoo Quest* corpus the essential bestial nature of animals is foregrounded, in the contemporary *Planet Earth* corpus these features are backgrounded. It certainly cannot be the case that these features are no longer present, but in the *Planet Earth* corpus the focus has switched to a more peaceable animal depiction. Let us now compare the use of these synonyms.

Bite

Let us start with the denotational meaning of the lexical items on which this section will be focusing.

Although all the below items can be used as verbs, I will be focusing on the nominal forms for this

section. *Bite* means ‘an act of biting’; *nip* means ‘a sharp bite or pinch’; and *strike* means ‘a sudden attack’ (OED Online 2015). In *Zoo Quest*, *bite* and *nip* are preferred. *Bite* in its denotational meaning is a nominalisation of a process, with *nip* meaning a kind of *bite* which places emphasis on its severity. In many examples in *Zoo Quest*, the animals are said to possess (*have*) *a bite*. This may have been phrased as having teeth, but the lexical item *bite* denotes the aggressive intent of the animals. In *Planet Earth*, *bite* is also used and we shall explore below the different connotations given to these words. *Planet Earth*, however, uses the nominal form of *strike* as a synonym of *bite*, which instead denotes abruptness and disruption.

ater even though he had got quite a bite . <TS: 6:00> The river was now getti

What about his teeth? Have you had a bite from them ? <Speaker: DA> <Speaker:

reputation of having a very severe bite . And just to see whether he had a b

. And just to see whether he had a bite or not , I tried him with this twig

nake . It has an extremely venomous bite that can kill a fish almost instanta

sic: ominous> A gaboon viper with a bite just as deadly as the cobras . But t

which they can give a most painful bite . Naturally when the nest is disturb

In *Zoo Quest*, *bite* is used in both its verbal (7) and nominal forms (7). With the nominal forms, shown above, it is premodified by adjectives and intensifying adverbs: *painful*, *severe* and *extremely venomous*. Its nominal form is also postmodified by *deadly*, and the restrictive relative clause *that can kill a fish*. In *Planet Earth* the nominal form is premodified by *powerful* and, similar to the *Zoo Quest* corpus, postmodified via copula BE with *highly venomous*. The *Zoo Quest* and *Planet Earth*

corpus use similar adjectives and modifying adverbs with nominal *bite*. However, there are subtle differences in the pre- and postmodification which suggest different lexical prosodies.

Let us consider the difference between *extremely venomous* in *Zoo Quest* and *highly venomous* in *Planet Earth*. Both *extremely* and *highly* are intensifying adverbs which are seemingly synonymous. However, using the Sketch Engine's Sketch Difference tool, we can outline the difference between frequent collocations of these two adverbs. Whilst the collocations of *extremely* can be positive, they are just as likely to be negative (*discriminate, complicated, militant, fugitive, conservative, short sighted*). However the collocations for the intensifying adverb *highly* are resoundingly positive (*skilled, intellectual, educate*). In each case, *Zoo Quest* and *Planet Earth* are expressing an identical reality (the snake's bite is venomous), but the spin given to this lexical item differs in each corpus: negative in *Zoo Quest*; positive in *Planet Earth*.

The connotations given to the lexical item *bite* through other modifiers suggest a classification from differing perspectives (human's and animal's). In *Zoo Quest*, the use of *severe, painful* and *deadly* all emphasise the external perspective from which the animals are represented. Clearly, these aren't the sensations that the represented animals have when they bite, so for whom are these bites *severe, painful* and *deadly*? Looking closely at one of these examples might elucidate this:

Everyone had told us that the river was infested with man-eating crocodiles but it wasn't until one morning three weeks after our arrival in Borneo [...] that I actually saw one. [...] But as you can see no one could class this little baby as a man-eater even though he had got quite a bite (*Zoo Quest for a Dragon: Episode 2 1956*).

As can be seen from the expanded context, Attenborough's emphasis of the crocodile's bite, using intensifying adverb *quite*, highlights Attenborough's own bravery, and, in a display of machismo, we

see visuals of Attenborough rolling up his sleeves, delving in to capture the crocodile. Here, the use of *quite*, whilst intensifying, avoids the local peoples' "hyperbole".

In the *Zoo Quest* corpus we also have the synonym *nip*:

use I know hell give me a very nasty nip . This one hibernates during the cold

tentions at all and gave her a sharp nip . In between feeding the collection J

In these two instances, *nip* is used in its nominal form, and is premodified by *nasty*, *sharp* and intensifying adverb *very*. The two animals referred to in *Zoo Quest* are both small wild mammals: a mongoose and a tenrec. Normally, *nip* has a slightly different semantic prosody to *bite*. However, it is used almost synonymously with *bite* in *Zoo Quest*. It doesn't occur at all in the LOB reference corpus with the meaning of *bite*. However, if we look in a larger reference corpus, like the BNC, we can find examples of this lexical item to compare it with – I have given a more extended context for these examples:

Mares, on the whole, are surprisingly tolerant of the roughness and rudeness of their own offspring, and rarely seem to reprimand them, and if so, then perhaps with only a slight **nip**.

Sergeant took a playful **nip** at the hedgehog and got a noseful of stinging quills

Again, it is vital to state your dominance right from the start. Even a playful **nip** is likely to be painful and may well lead to further displays of such aggression.

The lexical item *nip* is here premodified by *playful*, and *slight*. In all of these examples of animals biting humans, or animals biting other animals, the lexical item *nip* is downplayed by premodifiers,

not intensified as it is in the *Zoo Quest* corpus. Hence, in *Zoo Quest*, *nip* emphasises that the animal has transgressed and not respected the natural order of things, whereas, the examples from the BNC highlight a deserved reprimand.

In the *Planet Earth* corpus, we do not have any examples of the lexical item *nip*. However, we do have a synonym used instead *strike* (#522 with LL 18.18). Although, as we mentioned above, *strike* has a generalised meaning ‘a sudden attack’ (OED Online 2015), which doesn’t necessarily include *bite*, I would suggest that the film visuals foreground the *strike* of these animals as their *bite*, offering close-ups of the animals’ mouths and teeth.



There are only a few examples in its nominal sense, but they do highlight a prosody different to that of *bite* and *nip*. Of the examples given below, we might notice that *strike* is premodified by the lexical item *mistimed* and postmodified with *a mere second* via copula *lasts*. Hence not only is the suddenness of the attack emphasised, but the precision of the animals’ bite. Here, perhaps rather than aligning us with the victim as with the nominal uses of *bite* and *nip*, the language here encodes a respect for the predatory animal and their precision.

```
S: 27:00> <Fauna type: sharks> The strike of a great white shark lasts a mere  
rsal fins . <TS: 43:00> A mistimed strike by one sail fish could fatally dama
```

Jaws

The next group of lexemes this section will consider are closely related to the first. The denotation of these words are very similar. *Jaws* are ‘the grasping, biting, or crushing mouthparts of an invertebrate’; *mouth* is ‘the opening in the body through which food is taken’; and *mouthparts* are ‘any of the projecting parts that surround the mouth of an insect or similar creature’ (OED Online 2015). Hence, two of these lexical items (*jaws* and *mouthparts*) are used to specifically classify the mouths of invertebrate animals, whilst *mouth* is a more general term. Given their denotation, then, we would thus expect *mouths* to be used for many kinds of animals. Indeed, in *Zoo Quest* they refer to monkeys, lizards, primates, and in *Planet Earth* to fish, primates and also surprisingly invertebrates. In *Planet Earth*, then, the lexical item *mouth* is being expanded to categorise the invertebrate mouth. Also, in *Zoo Quest* and *Planet Earth*, we would expect that the use of *jaws* and *mouthparts* in these corpora would refer only to invertebrates. But in both, this is not the case. In *Zoo Quest*, these *jaws* belong to monkeys and komodo lizards, and in *Planet Earth* they belong to crocodiles and dolphins. Although overall *jaws* is used significantly more frequent in *Zoo Quest* than in *Planet Earth*.

Let us look more closely at how the connotations of these terms differ in *Zoo Quest* and *Planet Earth*. Below is a concordance for the keyword item *jaws* in *Zoo Quest*:

rain , its mother wrenched open its jaws , extracted the maize and ate it her

en we noticed this group with their jaws locked tight in the lower leaf and t

ts , some of them carrying in their jaws little white ant grubs . They bring

eing gently squeezed by the workers jaws , so that they produce thin strands

fact is using its offspring in its jaws just like a tube of glue , moving it

d then mauled him so badly with his jaws that the man died afterwards . We su

the sand is waiting for it with his jaws agape . Once he s got it , theres no

sly enlarged heads armed with great jaws with which they can give a most pain

front try and get a grip with their jaws and drag her . <TS: 18:00> Meanwhile

ming all over him and sinking their jaws into the soft flesh beneath his armo

Perhaps to be expected with a morphological feature, many of these examples are premodified by possessive determiners (*its, their, his*). Given this fact, we shall look at the collocations of these words in order to distil the connotations of this lexical item in the *Zoo Quest* corpus. The collocates include *wrenched, tight, sinking, locked, enlarged, armoured, agape* and *squeezed*. In *Planet Earth*, the collocates are more varied *wipes, tooth, tight, steel, carefully, anticipation, snap, and flaunt*. The collocations in *Zoo Quest* are more violent than the collocates in *Planet Earth*. Indeed, one only needs to invoke Spielberg's 1970's classic to realise that *jaws* places emphasis on the predatory aspect of these animals, but in the *Planet Earth* examples this is backgrounded.

This can be highlighted by some closer examples. Here, we will consider the two references to animals that aren't invertebrates in *Zoo Quest*: macaque monkeys (line 1) and komodo lizards (line 6). In both of these instances the predatory aspect of these animals is over-stated by the use of the lexical item *jaws*, and perhaps a judgement cast upon the animals and the situation: a mother monkey stealing maize from an infant monkey and a komodo lizard attacking a man. The fact that the *Zoo Quest* corpus includes more neutral references to the same lizard (line 2), other reptiles (line

3), and other primates (line 1 and 4) by using the lexical item *mouth* suggests that the use of a less neutral term has been chosen specifically to reflect the predatory nature given the context of the actions. Hence, the use of *jaws* in the above occurrences as opposed with the below is done to represent a darker connotation to these animals.

ently to put my finger right in his mouth . <TS: 21:00> But I couldnt let him

nes dangling from the corner of his mouth . <Action: lizard goes into the trap

ump in the bottom of the chameleons mouth , but when the muscle bands suddenly

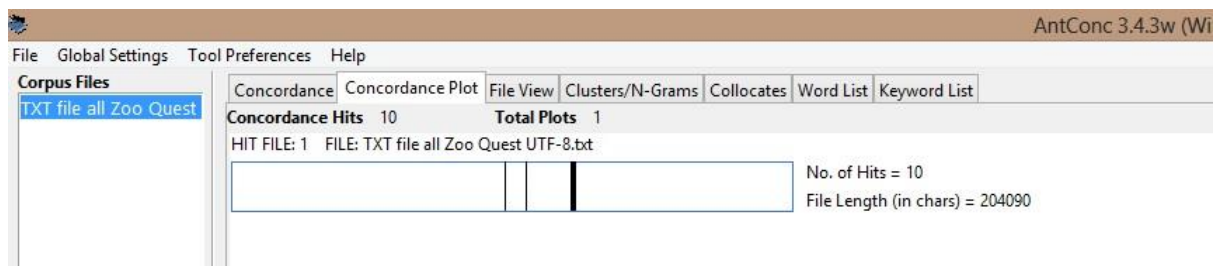
w , watch how he eats . Holding his mouth up so that he does nt miss a single

In *Zoo Quest*, the lexical item *mouth* also has collocates that are quite predatory *meets, hauls, muscle, eats, prey*, whereas *Planet Earth* has more unusual collocations, like *steer, brooding, and effective*. Hence, *mouth* as with *jaws* is linked to a more predatory aspect of animals in *Zoo Quest* and may even create a negative judgement of the animal's character. In *Zoo Quest*, however, *mouth* and *jaws* are used less often and when they are the predatory aspect is not the sole purpose of this morphological feature.

Spines

This lexical item is only found in the *Zoo Quest* corpus. Unlike the above lexical items which focus on attacking morphological features, particularly highlighted by the connotations in the *Zoo Quest* corpus, these morphological features are defensive. The denotation of the word *spine* is 'a hard pointed projection found on certain plants and animals' (OED Online 2015). There are also no occurrences of the synonym *quill* in either *Zoo Quest* or *Planet Earth*. *Quill* categorises the same

morphological feature as does *spine*, meaning ‘a spine of a porcupine, hedgehog etc’ (OED Online 2015). If we look at the distribution of *spines* across the *Zoo Quest* corpus, however, we can see that some of the occurrences are tightly packed together which suggests that *spines* is being used frequently in relation to one particular animal. Indeed, this is true. There is one reference to a sea urchin and eight to a tenrec.



The usage of *spines* over *quills* is strange considering that the animal being referred to, a tenrec, is very similar to a hedgehog. Again, as in the above lexical items, this may have been chosen for ideological reasons. Below I have given a concordance of this lexical item in *Zoo Quest*:

ou pick them up . Their long sharp spines are hollow , very fragile and fille

ady beginning to thicken into tiny spines . And here is their father . He s f

He really if you can discount its spines . He does nt really have a hedgehog

d he relies for his defence on his spines and hardly ever bites . But he has

p and trying to stick you with his spines . <addresses tenrec> Wouldnt you ?

He does nt bite . But he uses his spines by keeping himself rolled up in a b

er than these two which do nt have spines and here is one . <addresses tenrec

you . And because he does nt have spines , <Action: pokes tenrec with a stic

> Whoops ! Because he does nt have spines he relies for his defence on his te

There are 10 occurrences of *spines* in the *Zoo Quest* corpus, and I also looked at the frequency of synonyms in *Zoo Quest*: *quills* (0), *spikes* (0), *defence* (2), and *defences* (0); and *Planet Earth* which was the same as *Zoo Quest*, except for *defences* (1). *Zoo Quest* prefers *spines* over all other possible synonyms, whilst *Planet Earth* doesn't use *spine*, but does use the synonyms *defence* and *defences*.

Let us consider the connotations of *spines* in *Zoo Quest*. The lexical item has collocates such as *thicken*, *rolled*, *fragile*, *defence*, *hollow* and *stick* (verb). Here, the collocates are all to be expected focusing on defensive nature of this lexical item, although we do have one attacking collocate *stick*. Comparatively the lack of occurrences of *spines* and *quills* in *Planet Earth* is conspicuous, particularly considering that animals using spines defensively are filmed in the *Planet Earth* series. Some of these animals include sea urchins, hedgehogs and the vampire squid. As its name suggests, the vampire squid's most striking feature are rows of cirri – fleshy sharp projections. These are often used in a defensive posture known as the “pineapple posture” where the animal raises its legs to cover its head. And whilst these are salient, visually, this is not the focus of Attenborough's discourse:



The weirdest in this world of the strange: vampiro toothis, [...] it has a special defence.

To see what it does, you must switch off the lights. The vampire squid has lights of its own. Bioluminescent bacteria shine from pockets on its arms to confuse its predators. Are those eyes? In fact, they're spots on the end of its mantle. A bite there would leave the head unscathed ('Ocean Deep' 2007).

Attenborough here chooses not to focus on the *spine*-like defences of this creature, but instead discusses its bioluminescent defence.

Unlike the lexical items we have analysed thus far, *spines* is only present in the *Zoo Quest* corpus, with no comparative synonym present in *Planet Earth*. Indeed, when *defence* is used in the *Planet Earth* corpus they are not referring to specific defensive morphological features. We shall see this recurring again with the below lexical items *claws* and *stings*. In *Zoo Quest*, then, these morphological features are foregrounded, but in *Planet Earth* they are not. In foregrounding these features, *Zoo Quest* represents these animals as made up of component parts that help to classify them. This focus performs an acceptable, non-invasive form of dissection for "sensitive" 1950s audiences – "desensitised" modern audiences can explore the internal animal anatomy in shows such as Channel Four's *Inside Nature's Giants*. Indeed, external morphology is one way of incorporating an animal into the system of taxonomic classification so that they 'can be [...] added to the proper category,' which 'bring[s] about order and organisation' (Puranik 2007, p. 4). Again, this links into the ideology of colonialism, these animals are represented as beings able to be incorporated within a Western classificatory system.

Claws

As a keyword, *claws* occurs much lower on the keyword list (#234 with LL 25.02), but as mentioned at the beginning of this section, being part of the larger semantic category, it is worth considering.

There are four occurrences in *Zoo Quest*, but none in *Planet Earth*. There are many animals in *Planet Earth* that have claws (wolves, leopards, dogs, bears, eagles, lions) but, like *spines* above, these morphological features are not foregrounded. The denotation of *claws* is ‘a curved pointed nail on each digit on the foot of birds, lizards and some mammals’ (OED Online 2015). *Claws* is not easily replaceable with a more neutral term, like *nails*. This is because *nails* are ‘a specialised variation of claws that evolved in primates’ (Feldhamer et al 2015, p.635). Hence, whilst a nail is a kind of claw, a claw is not a kind of nail. Unlike the above lexical item *teeth* and the below item *mouth*, *claws* is not used as the more general term, particularly in non-specialised language usage. Whereas fangs are a kind of teeth and jaws are a kind of mouth, nails are not considered a kind of claw. Again, we might consider this a structural anthropocentrism (Spender 1980), where the lexical item most related to human morphology becomes the general term.

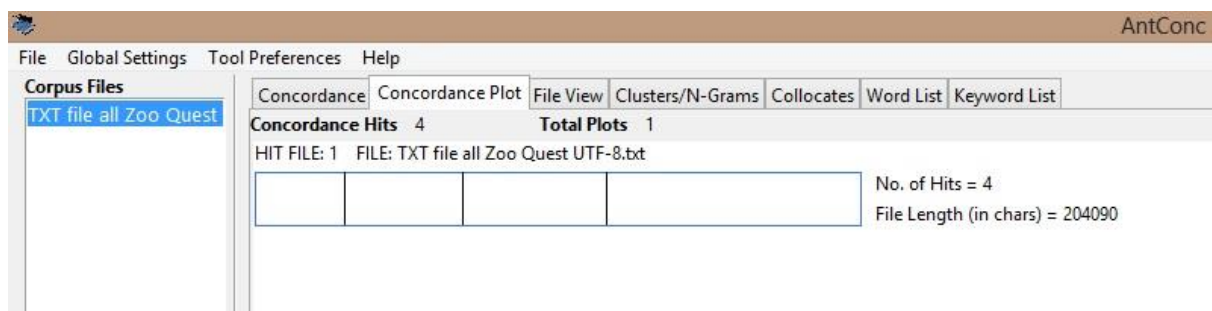
There are four occurrences of *claws* in the *Zoo Quest* corpus. Of these four, one refers to a Malay bear, two to a monitor lizard and one to a chameleon. Unlike *spines*, the occurrences are mostly spread throughout the whole of the corpus:

DA> <laughs> Do you still clip his claws ? <Speaker: DA> <Speaker: CL> Yes ,

ierce creature . He s got great big claws on him when he s grown up . Claws bi

g claws on him when he s grown up . Claws big enough to give you a very ugly w

ard grip . They have needle pointed claws so that when one this size walks on



Focusing on connotation, the lexical item *claws* is premodified by adjective *great big* and *needle-pointed*, and postmodified by adjective *big* via restrictive relative clause. Collocates of this lexical item, as used in *Zoo Quest*, include *terribly*, *clip*, *grip*, *grown*, and *sharp*. The focus of the pre and postmodification highlights the size of these features, whilst a broader collocational context highlights, as with the other terms, a negative lexical prosody (*terribly*, *sharp*).

Let us look more closely at some of these examples. Firstly, the premodifying terms *great big* and *needle-pointed*. What is interesting in these examples is that the descriptions of the claws represent the “nature” of the animal itself. For example, we can see that the monitor lizard’s (lines 2 & 3) “fierceness” is projected onto the description of its claws: ‘He’s quite a fierce creature. He’s got great big claws on him [...] Claws big enough to give you a very ugly wound, comparable to that of a leopard’ (*Zoo Quest for a Dragon: Episode 6* 1956). The chameleon example also shows this tendency: ‘chameleons seem incapable of walking without taking a really hard grip. They have needle pointed claws’ (*Zoo Quest to Madagascar: Episode 2* 1961). The chameleon’s *needle-pointed* claws represent its deliberate, precise “nature”. Here, the relationship between external appearance and character traits, oft-used in narrative fiction, is a metonymic one (Rimmon-Kenan 1983). In other words, the claws that these creatures possess (*great big* and *needle-pointed*) are a physical manifestation of their “nature”.

Comparing these references to *claws* with the only occurrence in the *Planet Earth* corpus also highlights an important difference. The bear in this reference is a male polar bear, followed repeatedly throughout this episode (PE09). His search for food in an ‘ice world’ that ‘has finally vanished beneath him’ highlights his plight against encroaching anthropogenic climate change (Ice Worlds’ 2007). After swimming in search of food, the polar bear reaches an island with pupping walrus, however, his ‘claws and teeth can’t penetrate’ the walrus’ ‘thick hide’, and eventually the male bear dies of starvation (ibid).

an just prize her off ... The bears claws and teeth cant penetrate her thick h

Here, *claws* is not pre or postmodified as in *Zoo Quest*, so the collocate *penetrate* used with negative polarity (*can’t*) is going to be the focus. Unlike the *Zoo Quest* corpus where *claws* are viewed with the potential damage that they could inflict (*great big*), the *Planet Earth* example focuses on the inability of this morphological feature to perform its function. Focusing on the inability of this feature further foregrounds the bear’s inability to cope with a changed environment. In *Zoo Quest*, then, the features through metonymy reductively signify the animals’ “natures”. In *Planet Earth*, however, this is not the case. In this example, the fierce, predatory “nature” of the bear is backgrounded as his attacking morphological features are unable to accomplish their function.

Secondly, let us consider the collocate *clip*, used in its verbal form. This occurrence is referring to the claws of a Malay bear who is being scrutinised in the TV studio. As mentioned previously, an important difference between the *Zoo Quest* and *Planet Earth* wildlife films is that *Zoo Quest* switches from filming on location (Sierra Leone, in this case) to the TV studio. Hence, wild animals in *Planet Earth* are represented as essentially “wild,” filmed on location in their eco-niche, whilst in *Zoo Quest* they are not. Here, removing the bear from its eco-niche, clipping his claws, and naming him “Benjamin” are all symbolic acts of domestication and domination. Above, we linked the *claws* with

a physical manifestation of an animal's "nature". Hence, clipping the bear's claws signifies removing the bear's animal "nature". Gillespie and Collard have suggested that 'intimate forms of violence, control and subordination,' such as body modification, 'is necessary for the animal to circulate as capital' (2015, p. 3). Comparatively, in *Zoo Quest* animals are represented as a kind of commodity, whereas in *Planet Earth* they are not commodities to be consumed by humans.

Fangs

The denotation of the keyword *fangs* is 'a large sharp tooth' which is usually assigned to animals such as dogs, wolves, snakes and spiders (OED Online 2015). Focusing on animal representation in shamanic totems, Stone has suggested that 'the mouth serves as an obvious place to signal animal selves' (2011, p. 79). Typically these totems 'substitute long pointed fangs for small square human teeth encapsulating "predatory animal"' (ibid, p. 79). *Fangs* (#322 with LL 18.77), then, is a loaded term used to describe the teeth of a predatory animal. The fact that this lexical item denotes morphological features of predatory animals (wolves, snakes and spiders) links these structures and the lexical item *fangs* with a bestial nature. In the *Zoo Quest* corpus, all occurrences of *fangs* are used in reference to snakes, whilst *fangs*, unsurprisingly, is not used at all in *Planet Earth*. This lexical item, however, is much less frequent than the item *teeth* in both *Zoo Quest* and *Planet Earth*. The more neutral term *teeth* means 'a set of hard enamel-coated structures in the jaws used for biting and chewing' (OED Online 2015). Despite relating to the same morphological features, *teeth* is a more neutral term than *fangs*.

This is highlighted when we look at how these items are employed in the *Zoo Quest* corpus. Of the three occurrences of *fangs* in *Zoo Quest*, all refer to snakes. If we look at an extended context in which *fangs* are used instead of *teeth*, we can reveal a difference in their usage in *Zoo Quest*:

He's got quite powerful *fangs*. I have been bitten by a python. It doesn't hurt much. It's just like getting a couple of pinpricks in your hand. And it leaves no ill effects at all (*Zoo Quest for a Dragon: Episode 3* 1956).

But did we like snakes, he said. For, if we did, one of his people was a magician who danced with snakes and who could show us some very extraordinary things. Certainly his snakes were extraordinary: highly venomous black and white cobras, 9ft long. They were the largest Jack had ever seen. We immediately thought that they had had their *fangs* removed, so Jack gestured that he wanted to look inside their mouths. <Action: opens snakes mouth using tool> The *fangs* were there alright and quite untouched. Astonished, we retired. The drums began and the dance started (*Zoo Quest to West Africa* 1955).

The first occurrence in its extended context is similar to the bravado evinced in the earlier crocodile scene, where Attenborough "wrestles" with the hostile fauna of the Indonesian archipelago. The second extended example, unlike the constricting python and boas, focuses on a snake which uses venom: a cobra. So *fangs* is used as a lexical item instead of *teeth* when the snake is posing a potential threat to humans in *Zoo Quest*. When the target of the snake is an indeterminate prey animal, then the more neutral item *teeth* is used. The fact that the morphology of these dental structures has not changed suggests the classification of these items as *fangs* is loaded with negative connotation.

The concordances for *fangs* and *teeth* from the *Zoo Quest* are given below:

can bite . He s got quite powerful fangs . I have been bitten by a python . I

that they had had their <TS: 8:00> fangs removed , so Jack gestured that he w

opens snakes mouth using tool> The fangs were there alright and quite untouched condition, but he hadn't got any teeth and obviously was still feeding on me of the fact that he's got quite big teeth now. But I shouldn't be telling you, you're very sweet. What about his teeth have you had a bite from them? <Speaks he relies for his defence on his teeth. And from past experience with this ant strike. They've got to get their teeth in their prey to start with, before its prey, its mouth is open and its teeth can engage. But that is why it is risky and they've got very sharp little teeth so I'm not going to touch them. Being

Again, like the other terms, I will explore the connotations given to these lexical items in each corpus. In *Zoo Quest*, looking at the collocates for *fangs* we have the items *mouths*, *bitten*, *powerful*, whilst for *teeth* we have the collocations *engage*, *sharp*, *prey* and *bite*. In *Planet Earth*, the collocations for *teeth* include *tough*, *self-sharpening* and *penetrate*. Comparing the difference between these collocates, the *Zoo Quest* collocates highlight hostility, whilst the *Planet Earth* collocates seem utilitarian (i.e. what allows the morphological feature to perform its function). Hence, in *Zoo Quest*, the keywords *fangs* and *teeth* depict an aggressive representation of the animals depicted. The *Planet Earth* corpus, however, foregrounds the utility of these features in order to highlight practicality rather than aggressiveness.

Sting

Sting denotes a ‘small sharp-pointed organ of an insect, capable of inflicting a painful wound by injecting poison’ (OED Online 2015). There are 4 occurrences of *sting* in the *Zoo Quest* corpus, which are just above the cut-off point (#348 with LL17.86), I will be including only the nominal form in this analysis. Like the lexical items *claws*, there are no synonyms for this term to be found in *Zoo Quest* or *Planet Earth*. As with the lexical item *bite*, the denotation of this item suggests an alignment not with the animals who possess stings, but with the animal that receives the sting: the wound is *painful*. By not aligning with the insects, stings are presented as an attacking morphological feature, but, in reality, they are ‘a structure that is used by insects defensively’ (Capinera 2010, p. 453).

Below are the occurrences in *Zoo Quest*:

small spider , paralyse it with her sting and carry it to this nest . Then she

that mother has paralysed with her sting . Now she comes back to lay an egg i

a nine-inch imperial scorpion whose sting would put a man to bed for several d

rmour plating . He flails his great sting , frantically battling against his m

All of these examples reference invertebrate animals (wasps, ants, scorpions). Although the focus on invertebrate animals is unsurprising, only invertebrate animals have a sting, it also highlights a zeitgeist in the 1950s. Looking at our keyword list (appendix I), the “key” species that are highlighted in the *Zoo Quest* corpus include *ants*, *insects*, *termites* and *wasps*. During the 1950s/60s, as Molloy (2011) has argued, arthropods were represented as a real threat to humans by scientists and the media alike. This insect threat is clearly illustrated with an extended example from the *Zoo Quest* corpus:

But here comes something very much more formidable: a nine-inch imperial scorpion whose *sting* would put a man to bed for several days in great pain. But the ants quickly find him, swarming all over him and sinking their jaws into the soft flesh beneath his armour plating. He flails his great sting, frantically battling against his minute opponents, but he can't find them. Within 10 minutes, he's dead (*Zoo Quest to West Africa* 1955).

Despite the scorpion's superior "weaponry", his *sting* and *armour plating*, the driver ants are able to overcome its defences by attacking the *soft flesh*. Despite the ants diminutive size (*minute opponents*), the scorpion is depicted as helpless (*soft, flail*) against them. Given the 1950s zeitgeist, I am inclined to interpret this example as a cautionary fable, warning against an impending insect threat. As Molloy states, this insect threat was controlled by use of pesticides such as DDT. In the *Planet Earth* corpus, however, the insect threat has diminished and the only sting comes from sand blown by desert storms of which insects are the victim: 'Reptiles have armoured, scaly skins that protect them from the *stinging* grains. For insects, the bombardment can be very severe' ('Deserts' 2007).

Considering the collocations of these occurrences, attacking connotations pervade. The collocations include *battling, frantically, paralyse, paralysed, and mother*. Like the concordances for *teeth* above, 4 of the nominal occurrences are premodified by possessive determiners *his* and *her*. Of the references to *claws* and *spines* above, over half explicitly reference male animals and the rest are neutral. Maybe this is due to the fact that only females have a sting. But, why are females particularly aligned with this morphological feature and not the others? For example, with *teeth*, none are explicitly identified as belonging to a female animal, and, although one of the animals mentioned is female, Attenborough instead uses the neutral possessive determiner *its*. This is especially salient, because *her* is an underused lexical item in the *Zoo Quest* corpus. In *Zoo Quest*, then, we note that insects are represented as a threat to other animals and humans, whilst the

collocations present *sting* as an attacking morphological feature, foregrounding female animals. In *Planet Earth*, this morphological feature, as with *spines*, is not foregrounded.

4.1 (3) Juvenile animals

The group of keywords this section will be focusing on are the lexical items used to represent juvenile animals. These are highlighted as keywords in both the *Zoo Quest* and *Planet Earth* corpus. Although the lexis used to represent these juvenile animals changes significantly, they make up a semantic category large enough to be considered in this study. I have given the occurrences of these lexical items below:

<i>Zoo Quest</i>		<i>Planet Earth</i>	
baby/babies	27	baby/babies	2
cub(s)	3	cub(s)	42
chick(s)	4	chick(s)	20
calf/calves	0	calf/calves	21

Whilst *baby* is the preferred synonym for juvenile animals in *Zoo Quest*, in *Planet Earth* this is switched with the preference being for *cub(s)*, *chick(s)* and *calves*. Though, I was surprised to find any reference to *baby* in the *Planet Earth* corpus at all. *Planet Earth* seems to have switched from an anthropocentric term to animalcentric ones. As with the Animals and other Superordinates section, I believe this change in lexis is a positive one. Unlike the Attack and Defence section, where the animalcentric terms are more pejorative, here, a switch to a more animalcentric lexis is not problematic. I would argue that this is because these juvenile animals possess physical features that are “cute” regardless. Through visually represented juvenile characteristics, such as disproportionately large heads, chubby cheeks, and large eyes (Lorenz 1971), audiences are able to

relate to the vulnerability of these juvenile animals regardless of which category is employed. As Chiu has suggested ‘if we develop affection toward cute human babies in order to ensure their survival [...], this is then cathected to those animals who possess babyish features’ (2004, p. 108). In other words, humans are biologically/genetically programmed to care about young, “cute” animals. This interspecies slippage may account for the abundance of representations of juvenile animals in these documentaries. It also accords with the influence of Disney’s True-Life Adventures on the wildlife film genre, post 1940s. These films were ‘influential’, ‘sentimental’ and ‘anthropomorphi[c]’ (Chris 2006, p. 28). Indeed, the “Disnification” of animals, where animals are represented with ‘a trivialising and sanitized cuteness’, still influences contemporary wildlife films (Baker 1993, p. 177).

Baby

The denotation of baby is ‘a very young child, *esp.* one not yet able to walk and dependent on the care of others’ (OED Online 2015). It also refers to ‘the young of an animal’ (OED Online 2015). So, the most general synonym used for juvenile animals includes both animals and humans. Indeed, *baby*, Sommer suggests, is ‘somewhere in between’ the animal and the human (2000, p. 167). In the *Zoo Quest* corpus, there are many occurrences of the term *baby* (13) and its plural *babies* (13), and a sample of these are given below:

ight that these small creatures are baby hedgehogs . But they are not babies

ow I handle this one , because the babies are very frisky indeed and are liab

baby hedgehogs . But they are not babies for these are fully grown and neith

d here theres a female with a young baby clinging to her back and having a pr

s produce <TS: 17:00> only a single baby , very rarely twins and never three

nrec milk . However they fed these babies on cows milk greatly diluted with w
hat position , I did nt see how the baby would get anything to eat at all . A

Comparatively the *Planet Earth* corpus has just 2 occurrences of bab(ies):

giant panda nurses a tiny week-old baby . Her tender cleaning wards off infe
00> to the surface seeking food . A baby sailfish , 15cms long , snaps up eve

Babies is clearly an extremely anthropocentric term, in most cases a more animalcentric term might have been used, such as *cub*, *chick* or *calf*. Whereas, the *Zoo Quest* corpus uses the lexical item *baby* or *babies* when an animal alternative was possible, *Planet Earth* does so only once: the juvenile panda could be referred to as a *cub*. However, the reference to a juvenile sailfish is perhaps more understandable use of *baby*, since *fingerling* (the term for a juvenile fish) requires a more specialised knowledge than the implied audience would be expected to possess.

In *Zoo Quest*, the occurrences are premodified by adjectives, such as *little* (3), *small*, *young*, and *frightened*. And, it is also premodified by terms of quantification, such as *single*, *number of*, and *16 or 18*. Collocates of this item include *frisky*, *nursing*, and *affection*. The *Planet Earth* examples however are pre and postmodified by *week-old* and *15cms long*. Preliminarily, the *Zoo Quest* corpus, then, focuses on the age and size of the juvenile animals as does the *Planet Earth* corpus. However, the difference is in specificity of these references. Whilst *Zoo Quest* refers to the juvenile animals as *little*, *small* and *young*, the *Planet Earth* corpus is extremely specific. In *Zoo Quest* then, the juvenile animals are referred to in generic terms, using quantifiers and non-specific adjectives. *Planet Earth*,

however, does not. I would argue that specificity in animal representation ‘individualises the animals, pass[ing] from types to genera, and so to species, varieties and single specimens’ (Donald 2007, p. 144). It is perhaps an attempt in the *Planet Earth* series, as is the shift in categories from *baby* to animalcentric terms, to respect animals in their own right.

Focusing on a specific example from *Zoo Quest*, *frightened*, we shall explore the underlying ideology of using this specific lexical item with *baby* in these films. *Frightened* occurs in two contexts with juvenile animals in *Zoo Quest*: ‘he had got a young orang-utan, very wild and very *frightened*, biting and scratching which he’d caught only the day before’ (*Zoo Quest for a Dragon: Episode 1* 1956) and ‘the contents of this box we wanted very much indeed. For sticking her fingers through the slats [...] was a very young, very *frightened* baby chimpanzee’ (*Zoo Quest to West Africa* 1955). In both these examples, primates have been captured by local people and are being bartered for by Attenborough. In emphasising the fear that these juvenile animals feel, Attenborough is portrayed as their liberator. Both the orang-utan (named Charlie by Attenborough), and the chimpanzee (named Jane) are depicted later in these episodes being “cared” for by Attenborough.

Indeed, if we expand the collocational span, humans frequently co-occur with *baby*: ‘we had a full complement of baby animals’ (*Zoo Quest to West Africa* 1955); ‘I tried hard to give these little babies’ (*Zoo Quest for a Dragon: Episode 4* 1956); ‘I handle this one, because the babies are very frisky’ (*Zoo Quest to Madagascar: Episode 3* 1961); ‘they fed these babies on cow’s milk’ (*Zoo Quest to Madagascar: Episode 2* 1961). In *Zoo Quest*, there are a similar number of co-occurrences of biological parents with *baby*, all of which are female: ‘there’s a *female* with a young baby’ (*Zoo Quest to Madagascar: Episode 4* 1961); ‘touching affection towards *her* baby’ (*Zoo Quest to Madagascar: Episode 5* 1961); ‘*she* produced several little babies’ (*Zoo Quest to Madagascar: Episode 3* 1961); ‘*she* was nursing a baby’ (*Zoo Quest to Madagascar: Episode 5* 1961); ‘when a baby did manage to grab a grain, its *mother*’ (*Zoo Quest for a Dragon: Episode 4* 1956). The frequent co-occurrence of

humans with the lexical item *baby* suggests that humans are frequent “caregivers”, since the meaning of this word itself entails a level of dependency. It seems that, in *Zoo Quest*, humans are not only an acceptable surrogate for the juvenile animal’s biological parents, but in some cases preferable. Indeed, Attenborough alludes to this later when discussing a juvenile bear:

one always thinks that animals in the wild are nice and healthy, but, in fact, Benjamin was covered all over with little sores in which there were maggots [...]. I think perhaps he’s fitter now than he’s been for a long time (*Zoo Quest for a Dragon: Episode 2* 1956).

This frequent interaction between humans and juvenile animals in the *Zoo Quest* series reiterates the stated purpose of the social action (to bring back animals), which we explored in Field. Indeed, in his proposal for the *Zoo Quest* wildlife films, Attenborough envisions that ‘the programme[s] would [...] culminate in the capture’ of animals (Attenborough 1953), and frequently the animals captured are juveniles, as juvenile animals are deemed at an early enough developmental stage to “settle” into captivity. The use of this lexical item *baby*, then, justifies the appropriation of these “vulnerable” juvenile animals. The slipperiness of the lexical item *baby*, not belonging to one domain or the other (being both human and animal), allows the animals to become incorporated into the human realm.

Cub(s)

Starting with denotation *cub* means ‘the young of a fox, bear, lion or other carnivorous mammal’ (OED Online 2015). Unlike *baby*, *Zoo Quest* has only a few occurrences of *cub*, whilst the *Planet Earth* corpus refers more frequently to *cubs* than *babies*. *Cub*, and all the items that follow, is certainly a less anthropocentric term than *baby*. Compared with the other terms, *cub* is particularly linked with juvenile predatory animals (with a few exceptions). The predominance of *cub*, represented two

times more frequently, over *chick* and *calf* might be linked to the sanitization (or Disnification) of predatory animals in *Planet Earth*. By focusing on juvenile carnivorous animals, the predatory aspects of these animals are lessened. Hence, a potentially powerful animal becomes a playful cub.

A few examples from *Planet Earth* are given below:

survival techniques . Rearing four cubs to this age is an exceptional feat .

months dozing underground . Her two cubs follow her and take their first step

slopes provide a sanctuary for the cubs . A male bear would kill and eat the

and even she can have problems . Her cubs however make light of the snow <TS:

f these nursery slopes and lead her cubs away from the mountain . If she dela

their catches with their squabbling cubs . <TS: 17:00> Most otters are solita

In *Zoo Quest* the lexical item is premodified by adjectives *young* and *little*, as with *baby*. In *Planet Earth*, also, there are references to quantification *two*, *four* and *seven*, the adjective *small*, and references to the juvenile animal's age: *four weeks old*, *one-year-old*, *a year old*, and *4 months old*. However, in *Planet Earth*, many of the instances are directly premodified by the possessive pronoun *her*, and *her* (22) and *she* (12) are frequent collocates of the left and right context. A few occurrences are premodified by adjectives (*hungry*, *healthy*, *dependent*) and one by present participle (*squabbling*). When we look at the collocates for this lexical item, we find the semantic prosody of this item foregrounds biological parenting, more so than the *Zoo Quest* corpus: *techniques* (2), *rearing* (2), *practice* (2), *leading* (2), *mothering* (2), *led* (2), *learn* (2), *skills* (2), *milk* (3), *raise* (3) and *family* (4). Whilst the individual frequencies for these items may be quite low, they do form a distinct semantic category. Compared with the above examples of interaction between juvenile and

caregiver, these lexical items foreground not just physical need satisfaction (feeding the juvenile), but knowledge or cognitive development.

I will consider the example that we mentioned in the *baby* section more closely (the panda *baby*). Given that the lexical item *cub* is not employed in this instance, this example is foregrounded for closer scrutiny as it is likely that it contains ideological attachment. The expanded context substantiates this:

A giant panda nurses a tiny week-old *baby*. Her tender cleaning wards off infection. She won't leave this cave for 3 weeks, not while her *cub* is so utterly helpless. Progress is slow for milk produced on a diet of bamboo is wretchedly poor. Four weeks old and the *cub* is still blind. Its eyes do not fully open until 3 months after birth, but the chances of the *cub* reaching adulthood are slim. The struggle of a giant panda mother to raise her *cub* is a touching symbol of the precariousness of life in the mountains ('Mountains' 2007).

Throughout this passage *baby* and *cub* are used interchangeably. Most noticeable are the evaluative adjectives and intensifiers (*tender, utterly helpless, wretchedly poor, touching*), which suggests a deeper significance for the panda. The panda's representation, then, is an ideological laden *symbol*. As a wildlife documentary subject, Chris has suggested that the panda enjoys the status of 'a media darling,' which, whilst reflecting the reality that the panda is 'pushed close to extinction by poaching and habitat loss,' has led to 'heroic conservation efforts, many in the form of aggressive breeding programmes' (2006, pp. 167-168). Hence, whilst focusing on the panda may promote an ecological message, as the stylised panda logo of the WWF attests, the panda itself becomes a biologically incompetent animal, unable to fulfil its procreational "purpose".

Chick(s)

The *Planet Earth* corpus also refers to a number of other terms for juvenile animals, including *chick(s)*. *Chick* means ‘the young bird still in the egg or only just hatched’ (OED Online 2015). *Chick* is also exclusively used with bird species. Representation of juvenile birds, especially penguins, may have become popularised following the release of *March of the Penguins* in 2005. *March of the Penguins* drew extremely large audiences, including a Christian evangelical one. Conservative critics suggested that the penguin “family” represented ‘the ideal Christian family’ exemplifying the ‘traditional [Christian] norms’ of “monogamy, sacrifice and child rearing” (Sturgeon 2010, p. 109). That juvenile birds feature heavily in the *Planet Earth* series is perhaps unsurprising given that this series would have been created with an international market in mind, particularly the U.S. broadcaster *Discovery*. But let us focus more closely on a few examples:

the depths of winter . A group of chicks has got lost in the blizzard . Cold

<TS: 46:00> By early summer , the chicks are surprisingly well developed , a

y fishing trip with food for their chicks . <TS: 40:00> But first they must c

the richness of the fishing . King chicks are dependent on their mothers for

ceed in reaching their ever hungry chicks . <TS: 44:00> The humpbacks are nea

s> Early summer and great grey owl chicks are fledging . Adults can only rais

In the *Zoo Quest* corpus, there are very few examples of *chick(s)*. Of the four occurrences, they are premodified by quantifier *two* and adjectives *young*, *little*, and *precious*. It is also premodified by possessive plural determiner *our*, and postmodified by *weaker and weaker* via copula *got*. In *Planet Earth*, this lexical item is premodified by the adjectives *hungry* and *poor*. Unlike the reference to

cub(s), there is a greater variety of possessive determiners, including *their* (4) and *his* (1), as well as *her* (1). It is also postmodified by *surprisingly well developed*, *dependent* and *less fortunate* using the copula verb BE. Unexpectedly, the collocates of this lexical item, whilst including some reference to parenting, seem to foreground fragility: *trampled* (3), *tragedy* (1), *survived* (2), *safely* (2), *victims* (1), *succeed* (1), and *death* (3).

Next, I will focus on the difference between possessive determiners used with *chick(s)* in *Zoo Quest* (*our*) and *Planet Earth* (*their*, *his*, *her*). In *Zoo Quest*, then, the plural possessive determiner *our* is used to modify *chick*: ‘our precious little chick got *weaker and weaker*’ (*Zoo Quest to West Africa* 1955). In *Zoo Quest*, the picathartes chick is represented as a *precious* and delicate object. The connotations of precious being that the chick possesses “value”. In *Planet Earth*, we noted how animals were commodified through the visual image, but in *Zoo Quest* the animal’s body is the site of control and commodification. We also mentioned in the *baby* section above that humans were frequently represented as surrogates, just as good if not better than the biological animal’s parent. Here, however, Attenborough and crew fail in their ability to care for the chick – they were unable to find the correct food for the picathartes juvenile. But this failure is heavily mitigated by copula *got*. Here, the copula represents the change in the juvenile bird’s wellbeing as organic, eschewing the human agency behind its deterioration. In *Zoo Quest*, as we noted in the methodology, animals in the hunting/expedition genre are represented as prizes of colonial expansion. Indeed the juvenile picathartes is commodified by physical incorporation using possessive determiner *our*.

In *Planet Earth*, however, the juvenile birds remain the biological parents’. The use of *their*, *his* and *her* foregrounds the interspecies cooperation between biological bird parents to raise juveniles. The proliferation of *their* instead of *his* and *her*, I would argue goes some way towards mitigating the gendered division of labour as represented in *March of the Penguins* (2005). In reality, many bird species do pair bond, but the division of labour is “equal” not gender divided (Sturgeon 2010), as

usually both male and female collect food for the juvenile. In *Planet Earth*, juveniles and parents are not represented as “model Christian families,” but as an egalitarian unit.

Finally, in *Zoo Quest*, there is only one reference to the fragility of juvenile birds (*weaker and weaker*). However, in *Planet Earth*, there are far more of these connotations and collocations. These are surprising, I certainly wasn’t expecting them, but they do represent a basic reality of juvenile birds. 80% of bird species are altricial, born ‘naked, blind, and unable to walk or feed themselves’ (McGowan 1994, p. 107). Compared with precocial species, such as cubs (consider *squabbling, healthy, practice* and *learn* for *cub*), juvenile birds are far less developed when born. Gross has argued that ‘one danger of scholarly work on animals [...] is that it can function to render “actual animals” absent’ (2012, p. 15). Whilst, these connotations and collocations do include some emotive terms (*tragedy* and *victims*), I consider the vast majority of these as transparently representing the “actual animal”.

Calf

Calf is ‘the young of any bovine animal, *esp.* of the domestic cow’ or ‘the young of other animals; as of deer, the elephant, the whale’ (OED Online 2015). Calf, then, refers to terrestrial ungulate species, as well as some marine mammals. Ungulate species, as denoted by the definition, are frequently domesticated by humans, used for food, other animal products and physical labour. In *Zoo Quest*, there are no occurrences of this lexical item. This absence cannot be explained by geographical location solely. Certainly, Madagascar doesn’t have endemic ungulates, but Sierra Leone and the islands of the Indonesian archipelago do. However, this lexical item is quite prolific in *Planet Earth*, and a sample concordance from the *Planet Earth* corpus is given below:

in very few predators . The playful calf is now drinking 500 litres of milk a

theyre hungry . Its the newly born calves that theyre after . <TS: 11:00> Run

other desert in the sea . The whale calf is now 5 months old . He s almost do

rate measures . This herd contains calves , easier targets . But how to reach

they will separate . With luck the calf will make the epic journey across th

The lexical item is premodified by the adjectives *young*, *playful*, *exhausted*, *newborn*, and *newly born*. It is postmodified by *young*, *strong*, *five months old* and *no more than a few weeks old* using the copula verb BE. There is also an occurrence of apposition: *this herd contains calves, easier targets*. Unlike *cubs* and *chicks*, there are very few occurrences of the possessive determiners, with *her* having a mere two occurrences. However, *mother* (6) is a frequent left and right collocate of this item, as well as items which heighten the bond between female and calf: *separated* (4) and *close* (2).

Focusing on a few examples, as opposed to *chicks*, some of these modifiers emphasise the precocial nature of calves: *strong* and *playful*. Most interestingly, however, is the example of apposition (*calves, easier targets*). This seems an odd way to categorise the juvenile animals. In context the visuals make it clear prior to this that we are focalizing the predatory wolves, so this is narrated from the wolf pack's point of view. However, in so doing, I think it represents the juvenile animals as passive and helpless, which they certainly aren't given their precocial nature. I think this verges on representing the juveniles as living fodder for predatory animals. Indeed, although referring to domesticated pigs, Hedgepeth has suggested that ungulates are frequently depicted as 'collected assortments of ambulatory' meat (1998, p. 76).

Despite ungulates being present in the *Zoo Quest* corpus, there are no occurrences of *calf* or *calves*. Ungulates are referenced frequently in the *Zoo Quest* corpus: antelopes (2), pigs (2), buffalos (2), horses (1), elephants (2), giraffes (1), hippopotamuses (1), rhinoceroses (1), goats (1), cows (3), and deer (1). However, some of these references to ungulates negate their existence in the location being “explored”:

You might think that because it [Madagascar]’s so close to Africa there’d be elephants and giraffes and hippopotamus and rhinoceros and antelope and so on. But in fact there are none of these African creatures there (*Zoo Quest to Madagascar: Episode 1* 1961).

Once these references are removed, then, the remaining species are mainly domesticated. Indeed, *goats* (#85 with LL55.94) is a keyword in the *Zoo Quest* corpus. These animals’ utilitarian “value” is highlighted time and again in the *Zoo Quest* series. Buffalo are represented ploughing fields; horses are ridden through the country; pigs are kept for human consumption; slaughtered goats are used to capture the komodo lizard. The only reference to a juvenile ungulate refuses to use the category *baby* or *calf*, instead using the adjective *little*: ‘Jane, the chimpanzee, was always curious [...] to see what was going on and insisted on inspecting each new addition to the collection as it arrived, like this *little* antelope’ (*Zoo Quest to West Africa* 1955). Here, a hierarchy is established: the chimpanzee, a primate, *inspects* the juvenile antelope. Taylor has analysed the representation of the camel in Nietzsche’s *Thus Spoke Zarathustra* suggesting that the ‘domesticated beast of burden receives little [...] esteem,’ especially compared with the ‘beast of prey,’ which is represented as ‘a higher level of development’ (2004, p. 32). I think the absence of *calf* in the *Zoo Quest* corpus suggests that this group are represented homogeneously as “beasts of burden,” and as such deserving little respect or consideration. In *Zoo Quest*, then, the juveniles are not depicted and ungulates are referred to only in their utilitarian role, whereas *Planet Earth* represents these animals

more positively. However, when *Planet Earth* focalises from a predator's perspective, the representation of these juvenile animals becomes problematic.

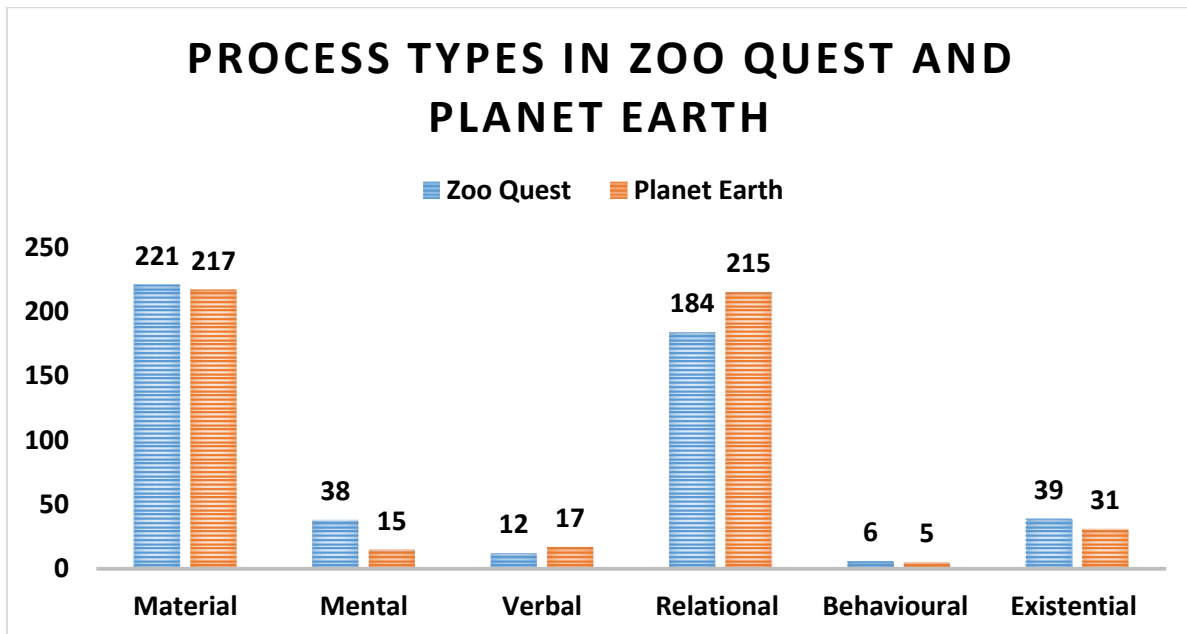
Lexis Conclusions

By exploring the lexis in this section, using a keyword approach, we have highlighted these lexical items' meaning in context, and explored how the employment of these categorisation systems has pointed to underlying ideologies in the text. Using this data driven approach has given me a solid grounding to argue for the saliency of these lexical items above others in these texts. Grouping these items into categories has also allowed me to explore "meaning systems," the words relationship to others. Indeed, 'one has to think of meaning systems rather than word-to-object correspondences' because 'these meaning systems mirror the dominant ideology of a society' (Sommer 2000, p. 123). The modal affordance we explored in this section was categorisation. Categorisation of animal beings is an important area of research because it is through these wordings that humans can exercise control and justify violence to animal beings. Trampe, who has explored categorisation in industrial agriculture discourse, has suggested that 'even those who deem themselves to be the severest critics [of industrial agriculture] [...] take on board the basic errors against which they militate, by blindly adopting linguistic categorisations' (2001, p. 239). In *Zoo Quest*, Attenborough, is part of a conservative BBC institution and the categorisation reflects this. However, despite being frequently outspoken in environmental advocacy in recent years, Attenborough has sometimes adopted categorisations that are not so progressive in *Planet Earth*. This research, then, as others have (Trampe 2001, Stibbe 2012, Dunayer 2001), advocates a critical awareness not just of the categories used, but also the semantic prosody that can be employed to define an item, because 'a language user can either [...] reinforce existing meaning systems or resist them' (Sommer 2000, p. 123).

4.1 Grammar

In this next section we will explore how animals are represented grammatically. Below I have included a graph which gives a summary of the 500 clauses I analysed in *Zoo Quest* and *Planet Earth*. I was certainly expecting material processes to proliferate, given that wildlife films frequently depict animals going about their lives. Bousé (2000), however, has argued that this is a misrepresentation. The 'media image of nature as a site of action and excitement' misconstrues the basic reality behind many animals' lives, for example 'African lions [...] often spend up to twenty hours a day at rest' (ibid, p. 6). Indeed, behavioural processes which convey inactivity (*sit, lie, listen*) account for very low percentages of the clauses in *Zoo Quest* (1%) and *Planet Earth* (1%). Whilst this kind of activity however is closer to the reality of these animals' lives, it would no doubt be considered "bad television" (ibid, p.7). I wasn't expecting the abundance of relational processes, which accounted for 37% of *Zoo Quest's* and 43% of *Planet Earth's* clauses. We mentioned in the methodology that these texts fall within the documentary genre, and are used for pedagogical reasons. Hence, the 'high frequency of relational processes' in these texts suggests that they cohere with the 'educational texts' function to inform (Thompson 1998, p. 30). Lower frequencies and percentages for mental and verbal processes are perhaps to be expected. Given how contested animal cognition still is within the scientific community I am not surprised that these are low in *Zoo Quest* (7.6%) and *Planet Earth* (3%), although cognition does account for only one of the mental process sub-types. The discrepancy between the percentages for mental processes in *Zoo Quest* and *Planet Earth* can be explained by the presence of humans in the *Zoo Quest* films (local peoples, Attenborough, camera people, Jack Lester from ZSL). Similarly, verbal processes account for very small percentages of the clauses analysed in *Zoo Quest* (2.4%) and *Planet Earth* (3.4%). This is partly explained by the fact that animals 'neither speak our language or we theirs', and hence verbal processes could lead to needlessly 'anthropomorphic representations' (Sommer 2000, p. 114). Whilst this might be appropriate for a Disney film, the wildlife film, with its roots in documentary, would not overtly

anthropomorphise. Another reason could be that, given the multimodal nature of film, animal vocalisations are merely heard through the film’s diegetic soundscape rather than narrated. Indeed, it would be odd to frame animal vocalisations using language, like *the monkey said* followed by sounds of hooting.



In Sommer’s study of primate representation in *National Geographic* articles, she analyses four process types: material, relational, mental and verbal. Nørgaard (2003), too, has advocated for four principal process types in stylistic analysis. Therefore, I, too, will be considering these four principal process types. Whilst behavioural processes are eliminated understandably from this analysis, given their relatively low frequency, existential processes represent a larger percentage of the data I analysed in both *Zoo Quest* (7.8%) and *Planet Earth* (6.2%), especially considering that these represent higher percentages than the principal types of verbal and mental processes. But given our focus, existential clauses do not highlight interrelationships. Existential clauses contain only ‘one obligatory participant, the Existent’ (ibid, p. 35). Existential clauses thus ‘encode meanings to do with states of being in terms of existence rather than action’ (ibid, p. 35). An example of this process type from *Planet Earth* is ‘there are only 40 Amur leopards [...] in the wild’ (‘From Pole to Pole’ 2007).

Here, the animal existents (Amur leopards) are very passive participants, since by using the existential clause the text producer 'is renouncing the opportunity to represent the participant [...] as involved in any "goings on"' (Thompson 2004, p. 105).

Although justification for exploring interrelationships in transitivity analysis frequently employs the "who did what to whom" paradigm, this really only accounts for transitive material clauses, such as 'the penguin guards a treasure, a single egg' ('From Pole to Pole' 2007). The actor (the penguin), process (guards) and goal (a treasure, a single egg) are perfect exemplars for this paradigm, but what about processes which don't affect others? Whilst verbal and mental processes might include affected participants (receiver and phenomenon), in relational clauses, although a relation is indeed being created between two participants, for example, deer (token) are (process) frequent casualties of the harsh winter (value), we are still identifying the same group of animals. Who is affected in this relational process? Well, I would argue that we are not solely exploring interrelationships between animals and other animals (or humans), but also 'the interrelationships between [transitivity] choices within [...] a stretch of text' (Thompson 1998, p. 30). Hence, relational clauses tell us about the identity of an animal participant. The animal (token) is assigned an identity (value), which 'reveals what values the writer (and ultimately the culture that he or she is part of) uses' (Thompson 2004, p. 98). Another example comes from Nørgaard (2003). She summarises Kennedy's analysis of a short story by James Joyce, arguing that choices between mental processes can dramatically affect character representation.

In the analysis above and that follows, I have focused only on clauses where animals feature as participants. As will have become clear from the methodology and the context above the focus of clausal analysis are the processes, the participants and other circumstantial elements (where applicable). The structure of this section then will be very straightforward. We shall explore each process type in turn starting with material, and then mental, verbal, and relational clauses. I have

limited the focus of material processes to transitive processes and relational to identifying processes, since I could not possibly consider them all in this study. This section will thus focus on the processes and participants, exploring animal representation, their interrelationships and underlying ideology.

Material Processes

Material processes contain two main participants: actor and goal. Whilst the actor is the “doer” of the action, the goal means who the process is “directed at” or ‘one that “suffers” or “undergoes” the process’ (Halliday 2004, p. 180). Material processes are very diverse and hence the sub-category system for the processes is very expansive. However, one important distinction to be made, in relation to these processes is the difference between creative and transformative processes. Creative material processes ‘bring the Goals into existence’ and transformative processes are “done to” existing Goals’ (Thompson 2004, p. 91).

Processes

The processes used with animal actors are listed below for both *Zoo Quest* and *Planet Earth*. In *Zoo Quest* we might note the usage of processes which suggest a violent relationship between participants (actor and goal). Hence, processes, such as *chew up*, *bite*, *drive away*, *haul*, *kick (out)*, *seize*, *shake*, *tear (2)* suggest a conflict between one animal and (usually) another animal. In contrast, *Planet Earth* contains only three processes that evince this kind of relationship: *battle*, *can strip*, *could take*. Notably two of these examples in *Planet Earth* include auxiliary verb *can*. These are interesting because they distance the actor from the violent process. In *Planet Earth*, then, there is often only the potential for violence. In *Zoo Quest*, there are some examples of mutualistic relationships (*play*, *clean*, *feed*), but these are much more frequent in *Planet Earth* (*lead*, *join (2)*,

follow, made, form, share). We might suggest then that in *Zoo Quest* the processes being used emphasise an antagonistic relationship between animal species, whereas *Planet Earth* instead foregrounds mutualistic relationships.

<i>Zoo Quest</i> – Processes with animal Actors	<i>Planet Earth</i> – Processes with animal Actors
tear, sew, weave, will have to move, drag, deposits, found, starts, can make, playing, finds, cleans, lets, continues, hauls, seizes, burgle, drag out, carry, build, have to carry, discharges, find, can't find, ate, drove away, fed, accepted, holding, chew up, plaster, descended, was biting, shake, kicks (out), tears, misses, gets.	are facing, guards, converts, led, is leading, can outrun, join, does, follows, approach, take up, drives, cuts, joins, have made, have made, anchor, sift out, battle, form, share, could (easily) take, pick up, attracts, patrol, can strip, fish out, uses, have driven, must search, use, lay, show, grips, doesn't use.

However, some examples in *Zoo Quest* that may appear mutualistic aren't. These are usually part of a larger verb group, such as, *will have to move*, and *have to carry*. The process constructions here suggest a lack of free will and obligation to a duty. And perhaps, not surprisingly, both of these instances in *Zoo Quest* refer to insect species: termites and ants. Whilst we could argue that, like in the above section, this emphasises a basic reality of the ants or termite's relationship to its queen or nest, this construction suggests a tyrannical power, which is exercised by a female animal (the queen). Also, consider the process *drag*, in the example 'drag her' (*Zoo Quest to West Africa* 1955). The foregrounding of external control over these material processes is employed for ideological reasons. Comparatively, in *Planet Earth*, an ants actions are not prefaced with obligation: 'those afflicted [...] are quickly taken away and dumped far away from the colony' ('Jungles' 2007). In *Zoo Quest*, then, the relationship between queen and workers is encoded as an exercise of power, however, in *Planet Earth*, this is no longer the case.

The *Zoo Quest* series also has predominantly transformative processes, apart from *make, discharge,* and *build*. Indeed, processes which could be encoded as creative are instead transformative. For example, consider the weaver birds constructing nests: 'And so the birds are left to *strip* the leaves

from their tree, tear them into long ribbons and *sew* and *weave* them into their beautiful, intricate nests' (*Zoo Quest to West Africa* 1955). Here the *leaves* are the goal which is undergoing a transformative process, and the *beautiful intricate nests* are a circumstantial element called 'role: product' (Halliday 2004). Instead this could have been encoded as a creative process, as in *the weaver birds sew and weave their beautiful, intricate nests*. Perhaps this is done because earlier Attenborough has defined the weaver birds as a pest species: 'They're very destructive creatures causing a great deal of damage to crops of grain' (*Zoo Quest to West Africa* 1955). Hence, whilst expressing admiration for their nests, the discourse frames these animals as pest species which transform (destroy) rather than create. Comparatively, in *Planet Earth*, there are a few more examples of creative processes (*make (2), form, drive, lay*). However, in both *Zoo Quest* and *Planet Earth*, transformative material processes dominate.

We might also note the predominance of present tense in both *Zoo Quest* and *Planet Earth*, and this also applies to mental and verbal process types. I had been expecting this, but it is odd considering that narration is recorded during the editing process (Siegel 2005), after the action has occurred. Stibbe (2012) has argued that the strength of haiku as a "counter" discourse to "destructive" discourses about animals (industrial agriculture, etc.) lies partly in its use of present tense verbs, which describe 'the present moment' (p. 154). This present tense links them, Stibbe suggests, with Japanese ideals of *sonomama* meaning 'just the way that things are' (ibid, p. 154). However, as we mentioned in the introduction, this can obscure the artifice behind these wildlife films, leading audiences to perceive the result as an unmediated version of nature (Rothfels 2002).

Participants

Firstly, let us consider actors. Actors in material process clauses are extremely agentive. Indeed if we consider these films as narrative fictions, which Bousé (2000) insists we must, then these animals are

the protagonists of these wildlife films. However, the variety of actors in these films suggest that both *Zoo Quest* and *Planet Earth* offer us narrative vignettes rather than focusing on the elaborated narrative of a single animal character. Below, I have summarised the animal species that are actors in the transitive material process clauses:

<i>Zoo Quest</i> – animal Actors	<i>Planet Earth</i> – animal Actors
weaver birds, cobras, gabon vipers, chimpanzees, termites, millipedes, ants, pangolins, praying mantis, wasp, driver ants, imperial scorpions, colobus monkeys, sunbirds, pythons, spotted ground squirrel, picathartes, goats, lemurs, kittens, puppies, proboscis monkeys, Malay bears, dogs.	penguins, polar bears, caribou, wolves, snow leopards, Baikal teals, birds of paradise, seals, great white sharks, elephants, buffalo, plovers, catfish, the dogs, blackfly larvae, bamboo shrimps, giant salamanders, salmon, smooth-coated otters, mugger crocodiles, crocodiles, dolphin fish, cichlids, lake fly midges, botos, dorado, piranha, roseatte spoonbill, monkeys, greater snow geese, blue bird of paradise, the six-plumed bird of paradise, superb bird of paradise, tamarinds, insects, gliding leaf frogs, beetles, ants, colugos, crab spider, forest elephants, chimpanzees.

Whilst *Zoo Quest* uses only 24 different species of animals as actors in these clauses, *Planet Earth* uses 44. We might also note that the type of animals that are actors in these material processes are quite different. Although a whole variety of animal life are actors in these wildlife films (reptiles, birds, mammals, insects – *Planet Earth* also includes amphibians), almost a third of all the species mentioned in the *Zoo Quest* films are insect invertebrates. We mentioned above that in the 1950s heightened concern about insect invasion was a potential reason for this (Molloy 2011). Also, this highlights another point to consider: the relative size of these animal actors. There are fewer mega-faunal species as actors in the *Zoo Quest* films compared with the *Planet Earth* films. We mentioned in the sources section that mega-faunal species are a trope of “blue-chip” nature documentaries, like *Planet Earth*, so it is not surprising that there is variation in these wildlife films. Focusing on mega-faunal species, however, perhaps equates physical size with power, which I would argue reiterates a “bigger is better” ideology.

Let us next look at the goal in these clauses where animals are actors. Again, I have underlined the goals in the table below.

Zoo Quest – Goals with animal Actors	Planet Earth – Goals with animal Actors
<p>tear <u>them</u>; sew <u>them</u>; weave <u>them</u>; will have to move <u>her</u> [<u>queen termite</u>]; drag <u>her</u>; deposits <u>its pellet</u>; found <u>the nest</u>; starts <u>his meal</u>; can make <u>things</u>; playing <u>a game</u>; finds <u>a grasshopper</u>; cleans <u>her wicked, spiked forearms</u>; lets <u>her</u>; continues <u>her struggles</u>; hauls <u>herself</u>; seizes <u>her</u>; burgle <u>the cell</u>; drag out <u>the caterpillar</u>; carry it [<u>caterpillar</u>]; build <u>walls</u>; have to carry <u>their great white grubs</u>; discharges <u>formic acid</u>; find <u>him</u> [<u>scorpion</u>]; can't find <u>them</u> [<u>driver ants</u>]; ate <u>vast quantities of palm nuts</u>; drove <u>the first one</u> away; fed <u>its young</u>; accepted it [<u>a frog</u>]; holding <u>their arms</u>; chew up <u>certain leaves</u>; plaster <u>them</u> [<u>leaves</u>]; descended <u>the trees</u>; was biting <u>the other</u> [<u>sifaka</u>]; shake <u>a sock</u>; kicks (out) <u>her tail</u>; tears <u>the curtains</u>; misses <u>the bottle</u>; gets <u>your fingers</u>.</p>	<p>are facing <u>winter</u>; guards <u>a treasure, a single egg</u>; converts <u>the last of her fat reserves</u>; has led <u>her cubs</u>; is leading <u>her cubs</u>; can outrun <u>the wolf</u>; join <u>the great trek</u>; does <u>everything possible to help</u>; follows <u>the tracks of its mother</u>; approach <u>their prey</u>; take up <u>their positions</u>; drives <u>the impala</u>; cuts <u>the corner</u>; joins <u>a flanker</u>; have made <u>a kill</u>; have made <u>this journey</u>; anchor <u>themselves</u>; sift out <u>passing particles</u>; battle <u>their way</u>; form <u>family groups</u>; share <u>their catches</u>; could (easily) take <u>a single otter</u>; pick up <u>rocks</u>; attracts <u>dorado</u>; patrol <u>the feeding shoals</u>; can strip <u>a fish</u>; fish out <u>fallen food</u>; uses <u>the waters</u>; have driven <u>the evolution of these remarkable displays</u>; must search <u>the canopy</u>; use <u>their huge webbed feet</u>; lay <u>their eggs</u>; show <u>them</u>; grips <u>the stem</u>; doesn't use <u>much energy</u>.</p>

In the *Zoo Quest* films goal participants include juvenile animals (*their great white grubs*), prey animals from the perspective of the animals who are actors (*a grasshopper, the caterpillar, him [scorpion], it [a frog]*), and predatory animals from the perspective of the prey (*them [driver ants]*). This is also a feature of the *Planet Earth* films, with examples of juveniles (*her cubs, a single egg, their eggs*), prey animals (*their prey, the impala, a single otter, the feeding shoals, a fish*), and predatory animals (*the wolf, dorado*). In the *Zoo Quest* films, however, we also have female animals as goal participants (*lets her, seizes her, will have to move her*). Female goals are not present in *Planet Earth*. In the *Zoo Quest* films, we find a number of veiled animals as goal participants (*his meal*), and *Planet Earth* too has some occurrences of this (*a kill; their catches*).

Both *Zoo Quest* and *Planet Earth*, then, include juveniles as goals. This portrays a relationship of dependence between the caregiver and the juvenile. *Zoo Quest* and *Planet Earth* also include predatory animals and prey animals as goals which highlights a relationship of predation between animal species. However, prey animals are more frequently goals than actors in these processes. This represents these prey animals as passive. This is also compounded when prey animals are nominalised, which doesn't represent the prey animals as participating in the action. Indeed, these examples could be reworded (*wolves have killed a reindeer*). As with the processes above, we noted that *Planet Earth* attempts to eschew the predatory aspects of animals via auxiliary *can*. But, both *Zoo Quest* and *Planet Earth* represent prey animals as very passive participants in these clauses.

So far, we have looked only at active process forms, but now we shall look at passive process forms.

In *Zoo Quest*, human actors are deleted three times: 'an egg was discovered' (*Zoo Quest to Madagascar: Episode 1* 1961); 'the first white-necked picathartes to be brought out of Africa alive' (*Zoo Quest to West Africa* 1955); 'in past years great numbers of these handsome creatures have been killed for food' (*Zoo Quest to West Africa* 1955). Whilst the first example perhaps shows the pragmatic uses of the passive, like not knowing who discovered the egg, the second and third examples highlight a less neutral usage. In the second example, I think that human actors have been deleted in order to eschew responsibility. Indeed, a few clauses before this, we have the juvenile picathartes bird as actor: '[it] made the long voyage back to England' (*Zoo Quest to West Africa* 1955). Are we really to believe that the juvenile picathartes bird undertook this journey of its own volition? Certainly, this is how it is constructed grammatically. Hence, 'such choices to highlight or background agency may be [...] automatic and commonsensical, and therefore ideological' (Fairclough 1989, p. 122). Other uses of the passive include: the nest was made by the female wasp (*Zoo Quest to West Africa* 1955); and 'he was joined by two others' (*Zoo Quest to Madagascar: Episode 1* 1961). Here the actors are not omitted, but are "demoted" from subject position through use of the [...] passive' (Gee 2004, p. 23). Interestingly, the demoted subjects in these passive

material clauses are females and juveniles.

Comparing these with examples from the *Planet Earth* films highlights some interesting differences. In some cases human actors are also deleted: 'the cats have been pushed to [...] extinction by hunting and the destruction of their habitat' ('From Pole to Pole' 2007). Notice, however, the change from *for food* (in *Zoo Quest*) and *by hunting and the destruction of their habitat* (in *Planet Earth*). In the *Zoo Quest* example food is a basic need, whereas *hunting* and *destruction* are not. *Planet Earth* thus represents animal goals suffering from the wanton excesses of humans (even though humans are not explicitly actors). A few examples also exhibit actor deletion: 'a calf is separated from its mother' ('From Pole to Pole' 2007), and 'the prey is captured' ('From Pole to Pole' 2007). But, in the *Planet Earth* films, it is predatory animals as actors that are omitted not humans (a wolf and a spider respectively), which again substantiates the claim that *Planet Earth* attempts to downplay predatory animal aggression. There is however one example where a predatory animal is not deleted as actor participant: '[drowning insects] are snapped up by plovers' ('From Pole to Pole' 2007). I think the usage of the "demoted" subject here is not ideological as it is in *Zoo Quest*. Instead the plovers are demoted because it encodes a sense of opportunism, which accords with the context (a dry riverbed becoming flooded after many dry months). Hence, by presenting the plovers as demoted actors, they appear more reactive participants. Unlike the *Zoo Quest* examples, animals as goals are foregrounded for the viewers' empathy: 'the travellers are hampered by dangerous dust storms' ('From Pole to Pole' 2007) and 'those afflicted [ants] that are discovered by the workers are quickly taken away' ('Jungles' 2007).

In these passive material processes, then, *Zoo Quest* frequently deletes human actors. *Planet Earth* does so, too, although slightly less frequently. In presenting the animal goals without human actors we ignore the causal relationship between human actions on animal goals (affected participants). *Planet Earth*, unlike *Zoo Quest*, also deletes predatory animal actors. In *Zoo Quest*, the animal actors

are demoted to positions of lower influence using the passive material structure, and these demoted participants are frequently powerless groups (juveniles and females) in patriarchal society. Here the hierarchical relationship between male and juvenile animals is encoded in the grammar. Demoted actors do occur in *Planet Earth*, but I would argue that these are in accordance with the surrounding context. Lastly, in *Zoo Quest* and *Planet Earth* some examples represent the animals as goals in foregrounded position to increase audience empathy. However, in *Zoo Quest*, the animal goal (*great numbers of these handsome creatures*) is empathised with above the basic needs of local peoples for *food*. Hence, white European's are depicted as more "civilized", never considering to eat such a *handsome creature*. This foregrounded animal goal thus underlines the "us" and "them" colonial ideology present in *Zoo Quest*.

Mental Processes

As noted above there are very few mental process clauses with animal sensors. This could be because wildlife films tend to explore 'the intimate details of [...] [animal] physiology and ethology' (Armstrong 2008, p. 110). Hence, wildlife films focus predominantly on the external representations of animals. Other modes, like literary fiction, are perhaps better at the psychological exploration of animal beings. Below are listed the mental processes and phenomenon with animal sensors. I have excluded those mental processes that project an idea clause since they 'are not part of the "mental" clause but are rather combined with the "mental" clause in a clause nexus of projection' (ibid, p. 206). In mental processes, there is a senser participant, whose 'significant feature is that of being "endowed with consciousness"' and the phenomenon or 'that which is felt, thought, wanted, or perceived' (Halliday 2004, p. 203). We mentioned in the methodology section that mental processes are subcategorised into perceptive ('seeing, hearing'), cognitive ('deciding, knowing, understanding'), desiderative ('wanting') and emotive ('feeling') process types (Thompson 2004, p. 94).

Processes

Zoo Quest – Processes with animal Sensors	Planet Earth – Processes with animal Sensors
dislike; sees; didn't appreciate; adore; seemed to be enjoying; regard.	will (not) see; can detect; know; can smell; encourages; detect; favours; will want; love; want; are detected.

Zoo Quest frequently represents the animal sensors using emotive process types. *Planet Earth*, however, uses less of these types. These mental process subtypes are not easily attributed to animal sensors and 'are likely to be anthropomorphising' because humans do not 'have access to the inner world of another animal' (Sommer 2000, p. 109). This is also the case with desiderative process subtypes, which are only found in *Planet Earth* (*will want, want*). In *Zoo Quest*, we might note that some of the emotive subtypes, like with material processes, suggest antagonistic relationships between animal sensor and phenomenon (*dislike, didn't appreciate*). Conversely, in *Planet Earth*, emotive subtypes only highlight a positive relationship between sensor and phenomenon (*love, encourage*). In *Zoo Quest* and *Planet Earth*, the predominance of these subtypes, emotive and desiderative, suggests that animals are represented as emotional, desirous beings, especially considering the lack of cognitive process types. This (re)creates an emotional/rational dualism, an ideological construct, in these discourses. Thus, in both these series, animals are aligned with the putatively less-developed "emotional" side of this paradigm.

Zoo Quest has only one example of a perceptive process (*see*), whilst *Planet Earth* has a few more (*detect (3), see, smell*). Sommer has argued that these processes 'highlight the fact that we can take into account only that part of our environment that is accessible to our senses' (ibid, p. 107). That these processes are attributed to animal sensors, however, suggests an increasing awareness of human perceptive (in)abilities, especially noting the use of modal *can* in *Planet Earth*. For example,

‘those ears *can detect* the slightest rustle’ (‘From Pole to Pole’ 2007) and ‘the matriarch *can smell* water’ (‘From Pole to Pole’ 2007). In these examples, the impala and elephant are depicted as being able to perceive things above human ability. This represents animals as exceptional in their own right, and not weighed against distinctly human abilities. In *Planet Earth*, an increase in these perceptive processes challenges a human exceptionalism. However, this challenge only extends so far. It can’t, for example, account for the lack of cognitive processes. Both *Zoo Quest* (*regard*) and *Planet Earth* (*know*) use very few cognitive mental process types. This could conversely inflate human exceptionalism, positing only humans as possessing cognitive abilities. Hence, whilst *Planet Earth* seems to have made some positive developments, this has not extended to all mental process subtypes.

Participants

<i>Zoo Quest</i> – Phenomenon with animal Sensors	<i>Planet Earth</i> – Phenomenon with animal Sensors
dislike <u>the sun</u> ; sees <u>us</u> ; didn’t appreciate <u>her attentions</u> ; adore <u>the sun</u> ; seemed to be enjoying <u>every minute of it</u> ; regard <u>her [as a tasty morsel]</u> .	will (not) see <u>the sun</u> ; can detect <u>the slightest rustle</u> ; know <u>their prey</u> ; can smell <u>water</u> ; encourages <u>the herd</u> ; detect <u>the slightest change in water pressure</u> ; favours <u>the low branches of bushes</u> ; will want <u>a share</u> ; love <u>figs</u> ; want <u>the ripe figs</u> ; <u>signs of the enemy</u> are detected.

Sensors in the *Zoo Quest* films include ants, mongooses, lemurs (2), chameleons, monkeys (colobus), whilst in *Planet Earth*, we have penguins, African bush dogs, elephants (2), birds of paradise, and monkeys (capuchin and tamarinds). In both series, the sensors in these mental processes include mammals. In *Zoo Quest*, reptiles and insects are sensors, whilst *Planet Earth* includes two bird sensors. Thus, there is slightly more variety in the kinds of animals that occupy sensor position in *Zoo Quest*. Interestingly, whilst some mental perceptive processes (*will not see, can smell, and sees*) refer

to the animal being as senser, the verb *detect* is used in the *Planet Earth* films slightly differently: those ears can detect the slightest rustle ('From Pole to Pole' 2007); sensory nodes on its head and body detect the slightest change in water pressure ('Fresh Water' 2007). Here, the morphological features of these animals are the sensors. Through synecdoche, however, the audience relates these features to the conscious animal senser. I would argue that foregrounding these morphological features as sensors directly links the feature to the environmental phenomenon. Indeed, as explored in the Lexis Section, Darwinian views of evolution, linking physical adaptation to environment, predominate in *Planet Earth*.

Most strikingly, for me, is the use of ants as sensors, especially of the emotive mental process subtype. I would argue that this is potentially where ideology resides. Humans are anthropomorphising when they apply emotive subtype to apes, our phylogenetically closest living relative, so stretching this to insects is problematic and, likely, value-laden. The example in *Zoo Quest* includes the sun as phenomenon: '[driver ants] dislike the sun' (*Zoo Quest to West Africa* 1955). Of course, many invertebrates 'do not have any internal mechanism for temperature regulation' (Kotpal & Bendre 2007, p. 518), which might explain their avoidance of direct sunlight, but to render this as aversion and not merely a case of survival is a rhetorical strategy designed to represent these animals as driven by emotions. This could, for example, have been expressed in a material process, such as *driver ants avoid the sun*. If ants *dislike* the sun, they could potentially *dislike* humans also. I would suggest that representing insects in antagonistic relationships with phenomenon participants again perhaps fits in with the socio-scientific panic regarding insects in the 1950s (Molloy 2011).

Lastly, let us consider phenomenon participants. In *Zoo Quest*, these can be environmental (*the sun* (2)), faunal (*her*), or human (*us*). Similarly, in *Planet Earth*, the phenomena are environmental (*the sun, water*), faunal (*prey, the herd*), or floral (*the low branches of bushes, figs* (2)). In most of these

clauses, animal sensors are perceiving, feeling, wanting and thinking within the confines of their immediate econiche. The present-tenseness of the narration and the use of narrative vignettes thus limits these animal sensors to reactive mental abilities. There is no exploration of 'foresight' and 'episodic memory' in these animal's scenarios (Andrews 2015, p. 24). The elephant matriarch can smell the water, but she does not remember the position of water holes from previous years. The tamarinds love figs, but do not remember the tree's fruiting cycle. Whilst foresight and episodic memory are 'only controversially attributed to animal species' (ibid, p. 24), the problem with representing animals without these abilities is that they become ahistorical subjects.

Most strikingly, in the *Zoo Quest* clauses, humans appear as phenomenon participant. In this clause, humans are regarded by the animal Other. This represents a more reciprocal relationship between animal and human, since 'being in the position of observer rather than observed [...] is itself a matter of power' (Sommer 2000, p. 108). And, although we have not considered them in this analysis, there are many clauses with human sensors and animal phenomena. The absence of humans in the "blue-chip" *Planet Earth* series means that this reciprocal relationship cannot be explored. This is a shame, since as Derrida has posited, 'thinking [...] begins' when the 'animal looks at us' (2008, p. 110). Derrida raises critical questions about the *umwelt* that other animals embody, and, as posthumanism does, it decentres an anthropocentric perspective. The fact that the animal can observe humans is not really explored in either of these wildlife films.

In both *Zoo Quest* and *Planet Earth* there are references to cognitive mental processes: 'know their prey' (*Zoo Quest to West Africa* 1955) and 'regard her as a tasty morsel' (*Zoo Quest to West Africa* 1955), where the phenomena are prey animals of predators (impala and praying mantis respectively). Interestingly, there are no examples in either *Zoo Quest* or *Planet Earth* of prey animals knowing their predators. This highlights a bias in representation in both these series: predatory animals are active; prey animals are passive. Surely it does benefit a prey animal to know

its predator? Indeed, the stakes are even higher for prey animals. If they don't know or anticipate their predators, they will be eaten. Studies of fish have shown that 'there are [...] significant [cognitive] differences between fish of high and low predation locations' (Brown & Braithwaite 2005, p. 486). So, perhaps a more reciprocal acknowledgement of the predator-prey relationship might be fairer.

Verbal Processes

As we explored in the introduction, there are very few clauses with animal sayers in *Zoo Quest* and *Planet Earth*. Verbal processes have three main participants: sayer, receiver, and verbiage. Whilst the sayer is perhaps straightforward enough, the other two participants can be defined respectively as: 'the one to whom the saying is directed'; and 'the content of what is said' (Halliday 2004, p. 255). A less key participant is a circumstance named matter which 'is used to label a summary of the message when it is given in a prepositional phrase' (Thompson 2004, p. 102).

Processes

<i>Zoo Quest</i> – Processes with animal Sayers	<i>Planet Earth</i> – Processes with animal Sayers
demanded; demanded; asked; was calling.	calls; announce; tell; are calling; calls (to attract).

The types of verbal processes in *Zoo Quest* and *Planet Earth* are mainly of the imperating subtype (Halliday 2004), though they may best be considered on a graded scale from least to most commanding (ask – call – tell – demand). The strongest imperating verbal processes are found in the *Zoo Quest* films: 'Young picathartes demanded at least 60 a day' (*Zoo Quest to West Africa* 1955) and 'This young owl demanded food every three hours' (*Zoo Quest to West Africa* 1955). *Demand* imbues the animal sayer with a high level of power over the human receivers. Although Attenborough and

crew are not explicitly labelled as receiver participants in the clause, it is made clear, visually, that they are the receivers with scenes of Jack Lester from ZSL feeding the bird.



Despite the relative power that the verb *demand* denotes, both picathartes and owls are altricial species, as we explored in the Lexis Section. The choice of this verb to represent the birds' verbalisations emphasises not only the imposition that these juvenile animals place on their human "adoptive parents", but also the lengths the human "caregivers" are going through to provide for these juveniles.

Both *Zoo Quest* and *Planet Earth* use *call* for a variety of animal species (bears, birds, wolves). Again as we mentioned above the verbal process *call* is not used with a verbiage participant. This is because the film soundtrack presents the animal calls, which are usually 'some sound typical of its species' (Sommer 2000, p. 115). In so doing, *Zoo Quest* and *Planet Earth* tend to represent a very stereotypical view of animal communication, which often tends to ignore the intricacies of animal verbalisations. Indeed, a zoosemiotic representation wouldn't be incommensurate with the ethological focus of wildlife films, but it seems little progress has been made from the *Zoo Quest* to the *Planet Earth* films. In *Planet Earth*, monkeys and apes are represented with different verbal process verbs (*announce* and *tell*). *Announce* particularly places emphasis on the power of the sayer. Using this verbal process with ape species implies and naturalises a hierarchal relationship in

chimpanzee society, as ‘one must have title and position to announce things’ (Kaufer et al 2008, p. 162).

Participants

Zoo Quest – verbal clauses with animal Sayers	Planet Earth – verbal clauses with animal Sayers
Young picathartes demanded at least 60 a day; This young owl demanded food every three hours; [It] asked for more; The little cub was calling [...] for food.	The female calls them; These calls announce the start of a raid into land controlled by the neighbours; They tell any neighbouring siamangs: ‘This is our territory. Keep out!’; The rest of the pack are calling; The superb bird of paradise calls (to attract) a female.

The sayers in the *Zoo Quest* clauses are all juvenile animals (picathartes (2), an owl, Malay bear). *Planet Earth* has a more diverse group of animal sayers (a female polar bear, the calls of chimpanzees, siamangs, African wild dogs, and a male superb bird of paradise). Sayers in both *Zoo Quest* and *Planet Earth* are represented as having power. Whilst the *Zoo Quest* films do not have a receiver participant, the *Planet Earth* examples do (*them, any neighbouring siamangs, a female*), referring to juvenile animals, rival groups, and female animals. Despite the verbal processes used, in *Zoo Quest*, the animal sayers don’t actually have power over the receivers. In *Planet Earth*, however, the animal sayers are represented as having power over the receivers (female – cub, dominant siamang group – neighbouring group, male – female). These represent dominant – subordinate relationships between these animals. The fact that these enforce ideologies of masculine, patriarchal society further suggests that verbal processes are regressive.

Both *Zoo Quest* and *Planet Earth* have verbiage participants (*food, at least 60 a day, the start of a raid,*), but only *Zoo Quest* has examples of matter circumstance (*for more, for food*). The *Zoo Quest* verbiage and matter circumstance are all requests for food from the juvenile animals to

Attenborough and the filming crew, though they are not explicitly receiver participants in the clauses. Although not explicitly stated, humans are depicted as implicitly understanding the animals they are caring for. Juvenile animals are unlikely to be calling only for food, especially when separated from their biological caregivers. These “interpretations” of animal verbalizations mitigate any suffering that the animals are likely to have felt. In *Planet Earth*, however, the verbiage refers to a signal between a group of animals (chimpanzees). This, then, highlights a mutualistic relationship between the chimpanzee group.

Relational Processes

In the lexical analysis section, we looked frequently at the use of copula verbs in ascribing description to animals – which adjectives were used comparatively using BE verb. These relate to just one of the kinds of relational processes described by Halliday (2004). There are two main types of relational process: attributive and identifying. The copulas that we looked at above were of the attributive subtype which include the two participants: carrier and attribute. However, in this section we will be focusing on the identifying relational subtype, which include the participants token and value. Whilst ‘the more general category [...] is called the Value, [...] the specific embodiment is the Token’ (Thompson 2004, p. 98).

Processes

Unlike the above sections where the processes might be realised by a large number of verbs, in relational identifying clauses, and in this data set most of the processes are realised by a form of BE. *Zoo Quest* uses only one alternative (*become*), as does *Planet Earth* (*symbolises*). In relational identifying clauses the processes form an equative relationship. Hence, due the relational processes linking function this means that they do not carry much semantic content themselves.

Participants

Zoo Quest – Values	Planet Earth – Values
<p>that is <u>the picture of a very rare bird</u>; Jack Lester of the London Zoo was <u>one of the few people who had caught sight of it</u>; this is <u>the story of another expedition led by him</u>; they were <u>the largest Jack had ever seen</u>; it wasn't <u>the property of the magician</u>; Jane, as we christened her, was <u>the tamest and most affectionate animal in the collection</u>; <u>one of the commonest insects in Africa</u> is the termite; <u>the most common [termites]</u> are the small workers; inquisitive human beings are not <u>the only things that disturb termite nests</u>; the soft termite grubs are <u>one of his favourite foods</u>; this is <u>what he's after</u>; their burlesque of a boxing match [...] is <u>training for a more serious business</u>; they'll become <u>one of the most voracious animals in the insect kingdom</u>, the praying mantis; these, too, are <u>ants</u>; this innocent looking line is <u>a column of the notorious driver ants</u>; these are <u>the most dangerous members of the column, the soldiers</u>; night is <u>the best time to catch them</u>; those are <u>the eyes of a crocodile</u>; this was <u>enormous excitement</u>; this was <u>a great thrill for us</u>; we became <u>the first Europeans ever to see the white-necked picathartes on its nest</u>; it was <u>the home of a fabulous bird, the rukh</u>; <u>the Arabic name for it is mukhayyar</u>; the cattle [...] are <u>the main symbol of a person's wealth</u>; here is <u>its creator, a tortoise</u>; this is <u>what scientists today believe the rukh [...] looked like</u>; it wasn't <u>the tallest bird that's ever existed</u>; it's <u>almost certainly the heaviest bird that's ever existed</u>; Madagascar [...] is <u>the land of the lemur</u>; this was <u>certainly not a fight</u>; it was <u>simply a friendly wrestling match</u>; [it was] <u>the variety with the long thin nose, the gharial</u>; the Malay bear is <u>one of the few bears that you can't ever tame</u>.</p>	<p>running directly at the herd is <u>a ploy to generate panic</u>; deer are <u>frequent casualties of the harsh winter</u>; the amur leopard symbolises <u>the fragility of our natural heritage</u>; it is <u>a seasonal feast for animals of all kinds</u>; birds are <u>the first to arrive</u>; they are [...] <u>the continent's most efficient predators</u>; <u>their secret is teamwork</u>; impala are <u>their favourite prey</u>; Leaping into the river is <u>an act of desperation</u>; it is <u>a waiting game</u>; this is <u>an invitation</u>; they're <u>the only large predator in these icy waters</u>; this is <u>the world's largest fresh water fish migration</u>; this is <u>one of the largest concentrations of Nile crocodiles</u>; these bars are <u>courtship arenas</u>; brooding young in the mouth is <u>a very effective way of protecting them</u>; these spiralling columns [...] are <u>mating flies</u>; they are <u>the key scavengers in this lake</u>; these underwater forests are <u>nursery grounds for fish</u>; the channels are also <u>the playground for restless young macaques</u>; he's not <u>the only bird of paradise here</u>; figs are <u>a magnet for a great diversity of animals</u>; finding the fungus isn't <u>a problem for the grubs</u>; this animal on the island of Borneo is <u>one of the most unusual</u>; the pitcher is <u>a one-stop shop for this spider</u>; clearings are <u>a magnet for elephants far and wide</u>; forest buffalo and red river hogs are <u>regular visitors</u>; the elephant's trunk is <u>the perfect tool for reaching it</u>; these clearings are <u>the only places where the forest elephants can get together</u>; they're <u>one of the few forest animals able to do so</u>; figs are <u>a vital part of a chimpanzees diet</u>; this community of chimps is <u>the biggest yet found in Africa</u>; it may be <u>a chance for some extra protein</u>.</p>

There are two human tokens in the *Zoo Quest*, but none in *Planet Earth* films. Of these two instances, both the human Tokens are identified with values that reveal them to be the first to encounter a certain animal (*one of the few people who had caught sight of it, the first Europeans ever to see the white-necked picathartes on its nest*). Here, local peoples and Europeans are segregated in the discourse. Casually ignored in these clauses is the fact that the local peoples are likely to have seen these animals many times before. The intention I believe is to represent the white European explorers as having achieved a great accomplishment, as with Attenborough's tussle with the juvenile crocodile in the above lexical analysis. Indeed, as Mitman's historical study of the wildlife genre discovered, hunting with the gun and subsequently the camera 'in the quest of scientific discovery became a common test of manhood' (2009, p. 20). Here, animals are used as a status symbol in the same way as a trophy hunter would display their animal "prize".

Where animals are tokens, they are often identified as having a superlative characteristic (*the largest Jack had ever seen, the most voracious animal, the tamest and most affectionate, the most common, the commonest, the most dangerous, the tallest, the heaviest*). The *Planet Earth* films also exhibit many examples of this (*the most unusual, the world's largest, the largest concentration, the continent's most efficient, the biggest*). We might note that whilst the *Zoo Quest* values seem to focus on sheer physicality, savagery, mundanity, and domesticity, the *Planet Earth* values refer to physicality but also uniqueness and admiration. In *Planet Earth*, however, focusing on the superlative characteristics of these animals perhaps undermines an ecological message. In fact, *Zoo Quest's* focus on *the commonest* species is perhaps more progressive than *Planet Earth's*, since it is species that are most abundant which form the basis of food chains.

In yet other examples, animal tokens are identified with a whole range of varying values. In the *Zoo Quest* examples, animal tokens are identified with values which affirm them as property of humans (*the main symbol of a person's wealth, the property of the magician*). In *Planet Earth*, the animal

tokens are identified with values suggesting fragility (*are frequent casualties, the fragility of our natural heritage*), fulfilling assigned roles within an econiche (*the key scavengers, the only large predator*), and highlighting their cyclic migration or movement (*the first to arrive, regular visitors*). The *Zoo Quest* films show animal tokens as having values which relate only to humans, whereas, in the *Planet Earth* films, animal tokens have values that relate them to a wider environment. Hence, *Zoo Quests* depiction of animals is far more utilitarian than that of *Planet Earth*.

In both *Zoo Quest* and *Planet Earth* we have examples of locations as tokens but the identified values are quite different. In *Zoo Quest*, these examples (*the land of the lemur, the home of a fabulous bird*) evince an ethereal connotation. Whilst the lexical item *fabulous* makes this clear in the second example, the first example's use of *the land of* does so through semantic prosody. In the LOB corpus (1981-86), *the land of* - is just as likely to be a fictional place as a real location (*the dead, his dreams, mists*). Madagascar and the animals are thus depicted as liminal. In *Planet Earth*, however, these places are identified as spaces where animals can play, socialize, feed, and be safe (*the playground for restless young macaques, one-stop shop for this spider, a magnet for elephants, the only places where forest elephants can get together, nursery grounds for fish*). In *Zoo Quest*, the animals have a mimetic relationship with their environment, whereas *Planet Earth* represents an interactive relationship between animal and environment.

Considering that some of these environments are animal-made like Dzanga Bai, the "village of elephants" (WWF 2015), it seems strange that more agency isn't given to the animals here. For example, using a material process clause, instead of the relational process: 'clearings are a magnet for elephants far and wide' ('Jungles' 2007). Indeed, earlier in the text, a passive material process is further used to eschew elephant agency: 'they [paths in the forest] were made by something big' ('Jungles' 2007). *Planet Earth*, perhaps, wants to downplay the impact of these animals on their environments. Considering the destructive "uses" – highlighting again the idea of utility – to which

humans put their surrounding environment, the producers and Attenborough perhaps felt that showing a species radically altering the environment around them may not be the best message to continue to disseminate. Although this is a 'co-operative and symbiotic slant on (animal) nature', it is a slant nonetheless (Goatly 2007, p. 140).

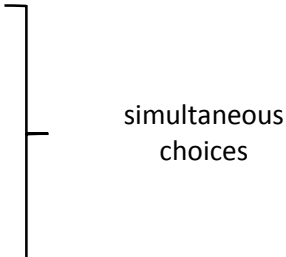
Grammar Conclusions

By exploring the grammar in this section, using Halliday's (2004) transitivity model, I have scrutinized the processes and participants of the principal process types, and showed how these have represented interrelationships between animals and other living beings (who did what to whom). This has allowed me to explore who is assigned agency and power. It has also allowed me to uncover 'the ideologically significant choice between different process types and participants' (Sommer 2000, p. 53). I used around ¼ of my data which has meant that I can argue for the validity of these observations to these texts more generally. The modal affordance I explored in this section was interrelationships. This area of research is crucial in terms of animal representation, since grammar can be just as value-laden as lexis. For example, Sommer has discovered that in ethological studies, female apes tended 'to occupy weaker participant roles' (2000, p. 119). We also mentioned in the introduction that Kahn explored how the passive voice in vivisection discourse presented the 'biologists' [...] antiseptic gaze on death and indignity' (2001, p. 242). I would argue that whilst lexis has shown more progress in terms of animal representation, this analysis has suggested that grammatical representation of animals is more conservative. Halliday has argued that 'the reality that grammar enacts is that of the prevailing socioeconomic order; hence language tends to be conservative' (2001, p. 180). Indeed, these wildlife films include very few (if any) of the proposed "green grammar" choices as presented by Goatly, such as 'Ambient Process, Reciprocal Verbs, Range as Complement' and 'Location Circumstance as Subject' (2001, p. 216). So whilst a text producer

might exercise a critical awareness of the lexical items used within a discourse, grammar is much harder to reshape.

5. Visuals

Language, as we have explored above, has been the primary focus of many critical discourse studies. Thus, critical discourse studies have largely ‘been confined to verbal texts, or to verbal parts of texts which also use other semiotic modes to get their message across’ (Kress & Van Leeuwen 1996, p. 13). Kress and Van Leeuwen have argued that ‘visual communication is, or should be, an important part of critical disciplines’ (ibid, p. 12), and multimodal discourse approaches have been an attempt to fill this void. As discussed in the introduction and sources sections, given that film is a multimodal medium, in this section I shall explore how visuals create meaning with attention to animal representation. As with language, visuals offer a set of choices from a finite system. For Kress and Van Leeuwen (ibid), text producers can choose to represent animal participants visually using:

- gaze (*offer or demand*)
 - size of frame (*close shot or medium shot or long shot*)
 - angle (*a frontal angle or oblique angle or high angle or eye-level angle or low angle*)
- 
- simultaneous
choices

As with language, these visual choices ‘encode meaningful oppositions’ (Eggins 2004, p. 16). For example, a choice to represent an animal participant with demand gaze, staring directly at the viewer, is an attempt by the text producer to *represent* social contact. Indeed, as we noted in the sources section, these ‘social relations’ are ‘*represented rather than enacted*’ (Kress & Van Leeuwen 1996, p. 121 – original emphasis). In film, it is the camera which is ‘the central personal or impersonalising instrument [...] by its designating the degree of association’ between audience and represented animal participant (Sultanik 1995, p. 32). Hence, the above framework is commensurate with exploring the visuals of the camera in these wildlife films.

In the above sections we explored the modal affordances of lexis (categorisation) and grammar (interrelationships). Visuals are also able to categorise (Section 3 – Kress and Van Leeuwen 1996) and convey interrelationships between participants (Section 2 – *ibid*), however I will be focusing on a different affordance for this mode. Hence, the modal affordance I will be exploring in this section is focalisation or point of view. This is because, given the above choices, ‘the camera establishes a film’s perspective, its point of view to the characters [represented participants]’ (Sultanik 1995, p. 32). Thus, the camera is the focaliser in these wildlife films. And, by focaliser, I mean the entity ‘who sees’ as opposed to the narrator ‘who speaks’ (Deleyto 1996, p. 217).

Before going any further, it is important to take into account the camera technology that was used in these wildlife films. There is a massive difference in the technology available in the 1950/60s compared with the 2000s. In *The Early Years* (2013), Attenborough comments that the camera technology in the *ZQWA* series posed problems: the 16mm cameras were ‘relatively primitive’ and the film ‘very insensitive’. This meant that the film crew ‘wouldn’t be able to film much in the West African forest’ because it was too dark (*ibid*). There were also restrictions on achievable shot types like close-ups or long-shots. However, by the time *ZQM* was filmed, the cameras had become more advanced. The arriflex 16mm camera, like other sync cameras, ‘revolutionised the film industry in the late 1950s and 1960s’ (Mamer 2014, p. 107) – I have included a copy of the inventory in appendix V (Attenborough 1960). This advanced technology had ‘camera lenses and highly sensitive film stocks’ that enabled filming close-ups and long-shots ‘out in the wild’ (Attenborough 2003, p. 166). By the time *Planet Earth* was filmed, camera technology had advanced exponentially. *Planet Earth* was the first high definition series to be made. In an interview, Alistair Fothergill, the senior producer, explains that they employed ‘cine-flex which was a camera on a gyroscope on a helicopter’ (Coates 2013). Cameras on helicopters were not the only technological advances. Hot air balloons, creative tracking systems, timelapse shots and high-speed cameras were all employed in the filming of the *Planet Earth* series. Hence, advances in technology have allowed the wildlife film

to capture a greater variety of visual images which have the potential to represent animals in different ways.

This section is structured using the above semiotic choices: gaze, angle and framing. As we mentioned in the methodology, I focused on a single episode of *Zoo Quest (ZQM4)* and *Planet Earth (PE10)*. I might add that whilst applying this framework I experienced some problems in its application to animal participants, and I discuss these problems in the interpretation that follows. Each section will begin with an exploration of the employed visual choices in *Zoo Quest* and then compare it with the *Planet Earth* episode. Unlike the language section, I decided not to segment my analysis, as this would allow me to explore the dynamic aspect of film visuals, like eyeline matching, zooming, tilting, panning, and tracking. As with the other sections, I shall explore animal representation and ideology, but also the modal affordance of visuals: focalisation.

5.1 Gaze

In *Zoo Quest*, the opening scene with animal participants sets up a gaze which, following Kress and Van Leeuwen's model, would be defined as an offer. An offer situates the viewer as 'subject of the look, and the represented participant is the object of the viewer's dispassionate scrutiny' (1996, p. 124). They suggest that film and scientific texts tend to use the more "objective" offer, as opposed to the demand – we will discuss demands later. Here, it is clear from this shot that Attenborough is himself not the object of scrutiny. Whilst it is true that Attenborough is not directly addressing the viewer as is common in most offer representations, he is depicted himself looking out of the frame. This intradiegetic gaze, his upright gesture and binoculars make it clear that the object of scrutiny is not him, but the animals he is watching off-screen. The camera then cuts to a shot of the flamingos he is watching fly across the screen. The cut used here is a match cut, specifically eyeline matching, which offers a 'visual logic' between these shots (Hayward 2013, p. 97), and between the

intradiegetic gaze and the intended object.

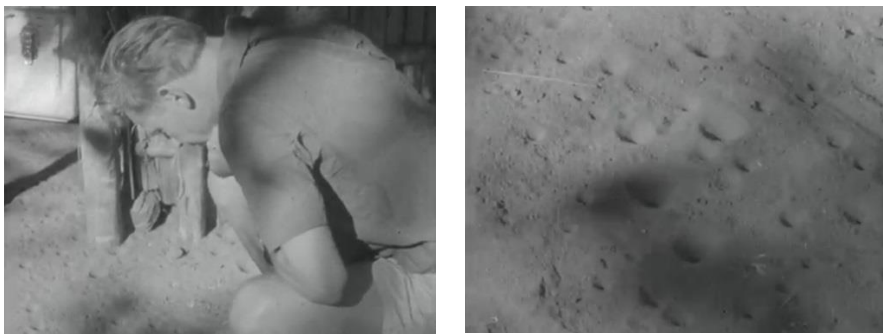


There then follows shots of the flamingos flying through the air which the camera pans to follow. Although these panning shots do follow the flamingos, they do not follow a specific bird. Indeed, the pan shot is a very unnatural one for the 'human visual system' as usually 'the eye travels along the space locking on to points of interest' as it goes (Bowen and Thompson 2013, p. 117). These shots are accompanied by Attenborough's narration: 'these enormous flocks of flamingos arrived' (*Zoo Quest to Madagascar: Episode 4* 1961). The visuals and the discourse represent the intradiegetic gaze of Attenborough as aggregating these animals, as indeed the audience is invited to do. These dynamic shots then culminate with a panning shot which focuses on an individual bird as it lands in the lake. But any sense of engagement with this individual is mitigated by Attenborough's narration: 'there were two species of flamingo here. The greater flamingo [...] and the smaller lesser flamingo' (ibid). As mentioned above, existential processes represent the animals as passive participants. This is clearly harmonizes with the offer gaze, which represents these animal participants as 'objects of contemplation, impersonally, as though they were specimens in a display case' (Kress and Van Leeuwen 1996, p. 124).

When the film moves on to the other bird species around the lake (*hoopoe, black herons*), we first return to a shot of Attenborough on the jeep with his binoculars and then cut, again using eyeline matching, to the different bird species respectively. When watching the black heron's fishing

technique, Attenborough poses a number of interrogatives at the viewer: 'But why should it behave in this curious fashion? Was it perhaps some form of display?' (*Zoo Quest to Madagascar: Episode 4* 1961). These interrogatives further align these animals as objects of contemplation.

The next group of animals that Attenborough looks at are insects (*antlions, ants, mudwasps*). Here we don't return to Attenborough with binoculars, but are given an over-the-shoulder shot of Attenborough. From here, the camera doesn't cut, but tilts, panning slightly left and zooming towards the ground, with Attenborough slowly receding from the screen:



This over-the-shoulder shot which tilts and pans away is designed again to focalise the objects, the animals, that Attenborough and the audience are scrutinising. This shot in particular highlights the generic conventions of the expedition genre in the *Zoo Quest* films. Here, the endemic species of Madagascar are scrutinised through a White European gaze, which 'mark[s] nationality' (Pettersen 2011, p. 5). Indeed Attenborough's subjective description of the animal here is reflective of this: 'they're traps laid by a savage little creature called an ant lion' (*Zoo Quest to Madagascar: Episode 4* 1961). The lexical item *savage* here is thus loaded with colonial ideology. The insects in this section are further objectified by Attenborough's frequent intrusions. In a later shot, Attenborough digs up the antlion from its "trap" (in *ZQWA* he also digs into a termite colony to show the queen). Later in this episode, he finds a moth cocoon which he takes in his hand as the camera zooms in.



This depiction of hands-on naturalism presupposes that the naturalist has the right to scrutinise and, in the case of the antlion, dig out animals for closer inspection. Attenborough's narration also doesn't acknowledge his action of digging out the animal: 'But so far I hadn't seen this cunning monster. Here he is, in fact he's only a larva' (*Zoo Quest to Madagascar: Episode 4* 1961). Although shown visually, the material action of digging (I dig out the antlion) is not described using language, and hence the goal participant (the animal) is not depicted as affected by this scrutiny.

Attenborough's use of *in fact* and *only* in the above description of the "savage little creature" helps to achieve a withering of the animal subject before the human gaze. The antlion may be a fearsome predator of the insect world, but it is just an insect.

Next, the films move on to look at various species of lemur (*brown lemurs, ruffed lemurs, ring-tailed lemurs*). There are a number of shots of lemurs in Madagascar, but we will focus on the shots of Attenborough and the ring-tailed lemurs in the television studio. Unlike the shots filmed in Madagascar, the shots in the TV studio often begin with a demand gaze, as defined by Kress and Van Leeuwen's model (1996). This kind of gaze occurs 'when represented participants look at the viewer, vectors, formed by participants' eyelines, connect the participants with the viewer' (ibid, p. 122). The demand gaze is not maintained throughout this entire shot which lasts about 4 minutes, as is normal in conversation: 'speakers tend to look away from recipients during longer utterances' (Clayman 2013, p. 157). Instead Attenborough frequently looks at and engages with the lemurs he is describing, but he often addresses the viewer visually through demand gaze during this shot

sequence.



Kress and Van Leeuwen suggest that this demand gaze ‘constitutes an “image act”’ in that ‘the participant’s gaze (and the gesture [...]) demands something from the viewer’ (1996, p. 122). We might note that Attenborough’s face and gesture are open and relaxed. The lemurs are resting on his arms, and throughout the shots in the TV studio, they climb all over him, licking him whilst he feeds them. These shots, through demand gaze, invite the audience to come closer to the animals, but this is mediated by Attenborough. The demand gaze also mimetically enacts the contact between Attenborough and the lemurs. This intimacy is further signalled by Attenborough’s narration: ‘As soon as I started to keep them as pets, I soon discovered why they should be called cat lemurs’ (*Zoo Quest to Madagascar: Episode 4* 1961). The animals are represented here as incorporated into the civilized West as “pets”. The taming of these endemic animals of Madagascar is thus signalled in *Zoo Quest* by a shift from an “objective” offer gaze to “interactional” demand gaze.

In *Planet Earth*, the episode I am looking at contains both offer and demand gaze, like *Zoo Quest*, though this is employed slightly differently. As we have noted, humans are not present in the *Planet Earth* films, and hence animals are not focalised through a represented human participant. Although Attenborough is not physically present in these films, there are still instances of intradiegetic gaze. The intradiegetic gaze between chital deer and langur monkey will be explored below in the angle section. The first animal that we see in *Planet Earth* is the lynx. The shot of the lynx offers the

audience a demand gaze, but this is slightly obscured by the pine trees. We then cut to a shot which depicts the lynx walking towards the screen, and then cut to the final shot of the lynx walking away. Kress and Van Leeuwen note that the represented participant ‘human or not, by being represented as looking at the viewer, [...] are represented *as* human, anthropomorphised to some degree’ (1996, p. 124 – original emphasis). But, what is the lynx demanding of the audience here?



Unlike the *Zoo Quest* episode that visually foregrounds looking, objectifying and by extension understanding animals on screen, Attenborough’s narration here seems to suggest the opposite: ‘Some animals are so difficult to glimpse that they’re like spirits. One could live a lifetime in these woods and never see a lynx. [...] It’s the very essence of wilderness’ (‘Seasonal Forests’ 2007). Attenborough’s narration is suggestive of a radical animal alterity. The audience can merely *glimpse* this animal *spirit*, who *is* (notice the relational identifying clause) a symbol of “wild” and “untameable” animals. This lynx stalks towards the camera with determined gaze, demanding distance. In *Zoo Quest*, the demand gaze elicited contact with Attenborough, but also control and incorporation of the represented animals. In *Planet Earth*, however, the represented animal makes contact, but still remains aloof and free.

The other animals of the Taiga forest (moose, crossbills, wolverines, capercaillies) are depicted with various mixes of demand and offer gaze. Usually we are introduced to the animal going about its activity, in medias res, but during the shots of these animals, there will be a shot of the animals’

eyes, depicting a demand gaze. Indeed, almost all animals depicted in *Planet Earth* make contact using demand gaze. This is in stark contrast to *Zoo Quest*, which only depicts two animal participants using demand gaze (both lemurs). It is worth noting, however, that this is not an easy thing to classify with animal participants. The lynx is an animal that, like humans, has forward-facing eyes, but what about animals that have eyes on the sides of their heads? Are they demanding a response of the viewer when depicted side-on or straight-ahead?



The examples that Kress and Van Leeuwen (1996) give for demand gaze all have the property of forward-facing “eyes”, including an animal simulacra bank mascot and an inanimate car. I would argue that this is another example of structural anthropomorphism. Also, Kress and Van Leeuwen’s model relies on static visual media and not dynamic media, like film. Hence, how long does the gaze have to be sustained for it to be considered a demand gaze? Is a few seconds long enough?

Despite these problems with defining the demand gaze, I would suggest that demand gaze is an empowering visual representation. Hence, with demand gaze ‘there is an issue of communicative power’ (Kress & Van Leeuwen 1996, p. 126). In *Zoo Quest*, the only animals that demand are primates, and Attenborough. In *Planet Earth*, however, most of the animals are represented with demand gaze. Unlike *Zoo Quest*, in *Planet Earth*, every animal ‘may address the viewer’ (ibid, p. 126).

Whilst in *Zoo Quest* the offer gaze was signalled not only through the camera, but also via

intradiegetic means, in *Planet Earth* this is realised solely through the camera's gaze. Similar to *Zoo Quest*, the objects of contemplation here are the animals. Although this may have something to do with the econiche (forests), most of the animals are often depicted slightly obscured by the forest vegetation. The camera's obscured offer gaze here fulfils the offer criteria that 'the represented participants do not know they are being looked at' (Kress & Van Leeuwen 1996, p. 126). In visual culture, Malamud has argued that 'an animal's habitat is becoming irrelevant. Instead [...] an animal's *cultural context* supplants its natural context' (2012, p. 1 – original emphasis). I would suggest that using these obscured offer gazes *Planet Earth* is attempting to situate the animal in its natural environment.



At the end of this section in the Taiga forest, this noninvasive look at the animals in these forests is further elaborated. The moose in the below shot is followed using a tracking shot from the air. As the moose moves through the Taiga forest, the camera continues to track the moose but zooms outwards. I would argue that this is the opposite of the shot with the antlion in *Zoo Quest*. Attenborough's discourse during this shot makes it clear that the camera's gaze has been fleeting and uncomprehensive: 'the inhabitants of this great wilderness may live and die without ever having contact with humanity. Long may it be that way' (Seasonal Forests' 2007). The use of intransitive verb types *live* and *die*, featuring no goal (or affected) participant, and the use of the simple present highlight this cursory gaze. This shot, which zooms out, symbolically leaves the animal to go about its life.

Indeed, this is clearly a far cry from the scrutiny that the insects underwent using offer gaze in *Zoo Quest*. In both *Zoo Quest* and *Planet Earth* animals are still ‘objects of our ever extending knowledge’ (Berger, p. 14), but there has been a massive shift in the way that animals are objectified via offer gaze in these films. In *Zoo Quest*, the white European Gaze was invasive, diminishing and ruthlessly critical of its animal subjects. In *Planet Earth*, however, I would argue that the offer gaze via the camera respects the autonomy of these animal beings. The audience might catch a little glimpse of these animals, but the visual representation in *Planet Earth* does not entail control as *Zoo Quest* does. Hence, the camera may zoom in on these animals’ lives, but it will do so noninvasively.



5.3 Angle

In this section, we will be looking more closely at angle. Kress and Van Leeuwen suggest that ‘selection of an angle, a “point of view”, [...] implies the possibility of expressing subjective attitudes towards represented participants, human or otherwise’ (1996, p. 135). And, indeed, there are a number of ways in which the animal subjects are represented differently via angle in both *Zoo Quest* and *Planet Earth*. If we look briefly at the animals we have already mentioned above, the antlions are depicted using a top-down angle. This is defined by Kress and Van Leeuwen as ‘the angle of maximum power’ which ‘is orientated towards [...] objective knowledge’ (1996, p. 149). The depiction of the moose in *Planet Earth* also exhibits this property. In both these sequences, offer gaze and top-down angle cohere in order to depict “objective” representation. But whilst *Zoo Quest*

seemingly vilifies the animals represented in this way, *Planet Earth*, as we noted, shies away from subjugating these animals. In both these wildlife films, however, top-down angle is used very infrequently.

We will now focus more specifically on how angle is employed in *Zoo Quest*, and then compare this with *Planet Earth*. In *Zoo Quest* the animals are depicted using a number of different perspectives. The flamingo, hoopoe and black heron are mostly depicted using side view, whilst wasps and moths are depicted using a back view.



The predominant use of these perspectives (side and back) in the *Zoo Quest* films suggests the viewer is involved only marginally with these animals, and that we are merely observers. Conversely, *Planet Earth* frequently represents animals using frontal view. The use of side view or, as Kress and Van Leeuwen refer to it, oblique angle suggests that the participants are ‘not part of our world,’ and therefore ‘something we [the viewers] are not involved with’ (1996, p. 143 – original emphasis). These perspectives then, as the offer gaze does, situate these animals as “other”, inviting viewers “dispassionate scrutiny”.

Most noticeably in *Zoo Quest* animals are often represented from the perspective of a fixed camera position. The camera employs both tilt (moving the camera up and down on the vertical axis) and pan (moving the camera on its horizontal axis). Both tilt and pan mean that ‘the camera stays in place but alters its orientation’ (Branigan 2006, p. 55). So, *Zoo Quest* follows these animals from a fixed locus, angling the camera accordingly to capture images. Above, we noted that the flamingos

were followed using a pan shot. Hence, whilst the animal subject may be depicted frontal angle to begin with, the use of pan means that the angle, as the animal retreats, will become more oblique. This fixed locus is also realised in Attenborough's discourse. Whilst filming the brown lemurs, Attenborough states that 'there were a whole troop of them crossing over our heads' (*Zoo Quest to Madagascar: Episode 4* 1961). Earlier in this episode, the mud wasps too are described in this way. This highlights the camera (and humans) fixed locus in the *Zoo Quest* films. For me, this emphasises the anthropocentric nature of the camera in *Zoo Quest*.

In film theory, an anthropocentric camera is defined as 'being [...] a "materialistic" or "analytical" camera' where 'the degree of anthropomorphism [...] is connected both to our embodiment in the world and to our feelings of involvement with characters in their world' (Branigan 2006, p.39). I would argue that *Zoo Quest* exhibits this anthropocentric camera. We have already noted the camera's critical gaze of the animals depicted within these films. Unlike, *Planet Earth*, the viewer does feel more embodied in the *Zoo Quest* film world via intradiegetic gaze and Attenborough's discursively affirmed fixed location: visually by him sitting on the jeep, and linguistically as mentioned above.

Let us now look more closely at the camera angles used to depict the lemurs. Whilst the lemurs are grazing in the trees they are filmed using a low angle. Low angles are said to give the represented participant 'an impression of superiority, exaltation and triumph' (Kress & Van Leeuwen 1996, p. 146). All of the lemurs in *Zoo Quest* are filmed in this way (*brown, ruffed, ring-tailed*). However, I don't think low angle is employed to represent the lemurs as powerful. Instead, by using low angle to represent the lemurs in these shots, the lemurs are depicted as the "goal" of the *ZQM* series. As we saw above, the lemurs are captured and incorporated. Thus, low angle here also reiterates the anthropocentric, 'eye of a person', nature of the *Zoo Quest* camera angles (Eyman 1997, p. 83). The

lemurs have a sort of power, but only because of their utilitarian value.



Later in this episode, we are introduced to the brown lemurs. When trekking through the Madagascan forest, Attenborough and some of the local peoples find a lemur trap. We then get an intradiegetic gaze from Attenborough directed off screen using a frontal perspective and then cut to a shot of the brown lemurs up in the trees using a low angle. When we cut back to Attenborough, he is now depicted using back perspective. If the camera had wanted to show the lemur's point of view we would perhaps have been given a shot of Attenborough using high angle. Here, the use of angles shows that the lemur is not focalised. *Zoo Quest*, thus, employs a non-reciprocal perspective.

In *Planet Earth*, we move to the forests of North America, where a number of animals (*martins, owls, squirrels*) are zoomed in upon. Unlike the shots in *Zoo Quest*, the camera appears to use not only side and back view, but also frontal view. Frontal view suggests that the represented participant is 'part of our world' and is something that the viewer is 'involved with' (Kress & Van Leeuwen 1996, p. 143). Whilst in *Zoo Quest* this was only really employed occasionally with the lemurs, *Planet Earth* uses this angle much more frequently, and with a wider variety of animal participants, like the periodical cicada. When side view is employed, it is often coupled with a demand gaze, making it clear that the animals are aware of the camera. Consequently, we feel more connected with these animals as opposed to the animals in *Zoo Quest*.



These front views are achieved through camera people being hoisted up into the trees, and we see in the establishing shot of this North American forest several people doing just this. Compared to the *Zoo Quest* films, human participants are depicted as going to greater lengths to capture more intimate images of these animals, and not only from a fixed anthropocentric locus. But, despite this, I don't think this is a non-anthropocentric camera, defined as 'disembodied, symbolic or ethereal' (Branigan 2006, p.39).

Let us look more closely at some examples in *Planet Earth*. Like *Zoo Quest*, *Planet Earth* also employs low angle. In *Planet Earth*, the film has moved to the Asiatic Russian forests, filming mandarin ducks. The female duck is depicted nesting high up in a tree, but she and the ducklings must leave the nest. The shots of the ducklings leaping from their nest in a high tree are filmed using low angle. This low angle is employed in order to heighten the ducklings' accomplishment. Hence, low angle is not only being employed in its traditional sense, to venerate these "brave" ducklings, but it also depicts the female ducks perspective. When the ducklings reach the forest floor, they and the female are filmed using frontal and side view shots as they are tracked through the forest.



Other animals depicted using this angle are the Amur leopards. The Amur leopards are represented using a low angle with a demand gaze, but Attenborough's discourse makes it clear that the Amur leopards are not powerful participants: 'There are only 40 Amur leopards left in the wild and that number is still falling. The harshness of the winters here hinders their increase in numbers' ('Seasonal Forests' 2007). This occurs whilst the female and juvenile are depicted scavenging from a deer body. The lexical items (*falling, harshness, hinders*) all emphasise the plight of the Amur leopards in the wild. In *Zoo Quest* the lemur was depicted using a low angle, but this was from a human-centred perspective. The lemur was powerful because capturing endemic species was the "goal" of the *Zoo Quest* series. In *Planet Earth*, however, the low angle and demand gaze is used to lionize the Amur leopards. This angle, as opposed to *Zoo Quest*, does highlight the Amur leopard's power over its niche. Indeed, the Amur leopards are apex predators both powerful and active. Hence, the angle used, as in *Zoo Quest*, does not give the perspective of the animal, but it does give the perspective of the animal within its environment.

Unlike *Zoo Quest*, *Planet Earth* also employs high angle, which makes the subject 'look small and insignificant' (Kress and Van Leeuwen 1996, p. 146). *Planet Earth* has moved to the forests of North America to film the emergence of the periodical cicada. The shots of the cicada emergence frequently change angle. Unlike *Zoo Quest*, the cicadas are depicted using predominantly side view, rather than back view, and as we mentioned above front view is also used. However, the last shots of the cicadas, having mated, are high angle. This shot captures all the cicada bodies on the forest

floor. However, Attenborough's discourse here mitigates the insignificance of these animals: 'The cicadas leave one final gift for the forest itself [...] The trees enjoy a marked spurt in growth [...] This may be the single largest dose of fertiliser in the natural world' ('Seasonal Forests' 2007). Compared with the top-down angle of the antlions, in *Planet Earth*, the cicadas' "insignificance" is framed within a larger, ecological context, and hence their importance within the forest eco-system is highlighted.



Unlike *Zoo Quest*, tilt is not used to create differing angles between participants. In this shot, *Planet Earth* has moved to the Teak Forests of India to follow the langur monkey and chital deer. Whereas angle in *Zoo Quest* was employed to represent a nonreciprocal relationship between two participants, in *Planet Earth*, tracking is used to depict a reciprocal relationship between monkey and deer. With tracking 'the camera itself moves through a locale' which 'changes pictorial perspective' (Branigan 2006, p. 55). These shots depict the mutualistic relationship between the two animals as they graze on the fruit of a mahua tree. The deer is depicted using side view, and we get an intradiegetic gaze upwards and out of shot. Instead of using low angle, as with the female duck, the camera tracks up vertically to the monkey which is then depicted using side view, looking back down at the deer.



As mentioned above, *Zoo Quest* employed a high angle tilt to depict the participants (Attenborough and the brown lemurs). This difference in camera movement is emblematic of the parity between the deer and the langur monkey's relationship. Attenborough's narration again highlights this: 'Chital deer follow the langur monkeys collecting the flowers that fall. [...] The monkeys welcome the deer for deer are unrivalled at spotting predators' ('Seasonal Forests' 2007). The choice of co-ordinating conjunction *for* instead of subordinating conjunction *because* further highlights this parity. The deer is not reliant on the monkey's favour, but instead offers a service to the monkeys. Clearly, unlike the relationship depicted in *Zoo Quest*, this is one of reciprocity, and *Planet Earth* perhaps avoids angle in this shot to evince this. As with the Amur leopards and the cicadas, I would suggest that this offers an ecological perspective.

Finally in *Planet Earth*, and in direct opposition to top-down angle, we have a bottom-up shot of the tree canopy. This shot, known as worm's eye view, is attributed to Rodchenco, who 'inspired by the Russian Revolution [...] felt [...] new change in political and social conscience deserved equally new visual perspectives' (Warren, p. 774). Worm's eye view, as the microfaunal nomenclature suggests, is the least anthropomorphic and the most ecological angles used in these films. This shot occurs in the Valdivian forests of Chile. Attenborough's discourse emphasises the microfaunal nature of this forest: 'This is a bizarre world of miniature creatures. The pudu, the world's smallest deer, feeds on the giant leaves of the gynura plant. [...] Another miniature, the kod kod cat. It's the smallest cat in all the Americas' ('Seasonal Forests' 2007). The worm's eye view is perhaps employed here to take

the perspective of the small fauna of this forest. Whilst top-down angle might usually be employed to diminish the participants, the bottom-up angle is here used to show these smaller animal's perspective.



5.4 Framing

As with the difficulty we mentioned with Gaze (whether animals with eyes on the sides of their heads demand from the front or side view), when we analyse framing we hit another structural anthropocentrism. In film theory, framing is 'invariably defined in relation to the human body' (Kress and Van Leeuwen 1996, p. 130). Hence:

the close shot [...] shows head and shoulders of the subject, [...] and the very close shot [...], anything less than that. The medium close shot cuts off the subject [...] at the waist, the medium shot [...] at the knees. The medium long shot shows the full figure. In the long shot, the human figure occupies [...] half the height of the frame, and the very long shot is [...] "wider" than that (ibid, p. 130).

Despite this, there is no reason why we cannot apply these terms to animal participants in *Zoo Quest* and *Planet Earth*, and so we will define these shots in terms of the individual animal bodies at which the audience are looking. This will hopefully re-dress this anthropocentric imbalance.

In *Zoo Quest*, the presence of human beings (Attenborough) on screen perhaps highlights the problems with not using this animalcentric approach. We already mentioned above that Attenborough frequently intrudes upon the animal participants in *Zoo Quest* (the comet moth and the ant lion). In this shot, we have the antlion and Attenborough's finger on screen. If we categorize this shot in terms of the human participant, this is considered a very close shot, however if we categorize this shot in terms of the animal participant, this is filmed using a very long shot. The presence of Attenborough's finger perhaps gives viewers a false impression of intimacy with the ant lion. Indeed, we are close to the animal participant, but only from an anthropocentric perspective. So despite this "intimacy", we have not really experienced this animal's *umwelt*.



Next we shall look at how close shots are used in *Zoo Quest*. In face-to-face proxemics, close shot imitates an 'intimate relationship' with the animal participants on screen (Kress & Van Leeuwen 1996, p. 130). When it has metamorphosed and is leaving its cocoon, close shots are used in scenes of the comet moth. However, any sense of intimacy is mitigated by the extra diegetic music used with this shot – we will talk more fully about this in the next section. Perhaps counter-intuitively, in this episode of *Zoo Quest*, we find that closer shots are used with insect participants than with the other participants, like birds and primates. Like the comet moth, the mud wasp is often depicted using medium close shot. However, combined with the other semiotic modes, these shots don't increase intimacy but instead highlight alterity. The viewer is made to feel uncomfortably close to

these animals.

The next shot we will be focusing on is the medium long shot. A medium long shot creates a greater social distance between the viewer and the participants. But, with a medium shot, 'a viewer watching [...] should feel comfortable with the proximity because the subject is near but not in their "personal space"' (Bowen & Thompson 2013, p. 9). Following Edward Hall's proxemics again, Kress and Van Leeuwen suggest that this shot represents 'far social distance' which is 'the distance to which people move when somebody says "stand away so I can look at you"' (1996, p. 130). This shot then, like the offer gaze, offers for a more impersonal scrutiny of the represented animals.

In this *Zoo Quest* episode, the lemurs are often depicted using a medium long shot. Indeed, both the ruffed lemur and the brown lemurs are depicted using this shot type. In the below shot, the ruffed lemur bounds towards the camera, which uses a frontal but high angle, whilst Attenborough describes the black and white fur of the lemur as 'like the badger or the skunk' (*Zoo Quest to Madagascar: Episode 4* 1961). In the shot of the brown lemurs, the medium long shot is coupled with a demand gaze, and Attenborough's narration refers to local peoples' beliefs about them 'the local tribes believe them to be the incarnations of spirits of the dead' (*Zoo Quest to Madagascar: Episode 4* 1961). In both the above examples, medium long shot, is used to reaffirm 'patterned role relationships' which 'are expressed through physical distance' (Tuchman 1987, p. 335). Hence, comparing the ruffed lemur with animal's with which the viewer is familiar and aligning the brown lemurs with local peoples' beliefs again reaffirms a colonial ideology of "us" and "them". Thus, again animals 'are [...] aligned with the natives, inhabitants of the land whose claim trumps that of the colonizers' (Vint 2010, p. 121).



The flamingos, too, are filmed using a medium long shot. There are two species of flamingo in the lake: the greater and lesser flamingo. In this shot, Attenborough refers to the different species as 'both us[ing] roughly the same method of feeding' (*Zoo Quest to Madagascar: Episode 4* 1961). This shot choice highlights the parity between the posture of the greater and lesser flamingos. Here, different species are collectivised using the medium long shot. In *Zoo Quest*, the medium long shot is used to destabilize the boundaries between these two species, however, as we shall see, in *Planet Earth*, this shot is often used to focus on one animal participant, imbuing an individual personality.

The final shot we will be focusing on is the long shot. Long shots and very long shots tend to be where animal participants are depicted as homogeneous groups. Indeed, where participants are referred to as a groups, we could suggest that they are being stereotyped, 'especially if similarity is enhanced by similar poses or synchronized action' (Van Leeuwen 2001, p. 96). The long shot and very long shot are used predominantly when filming the flamingos. What is interesting about these long shots is the lack of focus on specific members of a group. When we follow the flamingos, the camera pans to capture a flamingo flying, and then when it disappears off screen the focus is then switched to another flock of flamingos flying in the opposite direction! This pan movement is disorientating, but also symbolic of the long shot and very long shot's distance between viewer and participants. In these shot types, it doesn't matter which flamingo we follow, because they are all aggregated.

The very long shot is later employed showing an individual black heron's hunting technique. When we are introduced to this animal Attenborough makes it clear that he is unsure what the bird is

doing. When we cut next to the heron, it is amongst a group of other black herons where Attenborough's narration suggests the heron's behaviour has been understood in the context of other herons: 'Then I realised what it was doing. It was fishing' (*Zoo Quest to Madagascar: Episode 4* 1961). Despite this heron's unique hunting technique, Attenborough along with the very long shot here dismisses the animal's behaviour as ordinary, and nothing special. However, the fact 'that groups of conspecific animals may differ from one another in their behaviour is well established' (Galef 2014, p. 146). Here the heron's idiosyncratic behaviour is dismissed as "just fishing".

In *Planet Earth* animal participants are often introduced using a close shot. When we are introduced to the mouse lemurs of Madagascar, the lemurs are first represented using a close shot. We then move to a long shot as a mouse lemur comes out of a tree hole. Then the camera cuts to close shots of the tree hole as other members of the mouse lemur group come out of the hole. This is usually coupled with demand gaze. Even when they are members of the same species, *Planet Earth* uses close shot to introduce other members of the group. Earlier in this episode, this is also done with the ducklings as they leave the nest. In *Planet Earth*, it is made clear that one animal is not symbolic of all members of that species, each one is imbued with its own introduction, which thereby gives each animal an individual character. In *Zoo Quest*, we noted that close shot created a feeling of alterity, however, in *Planet Earth* close shot is used to highlight intimacy depicting these animals as they leave their nests.

Close shot is also used in *Planet Earth* when more than one animal participant is being filmed, particularly if there is a relationship of predation. Here the predatory animal is often depicted using a close shot, no matter how diminutive. In this episode alone, pine martins, tigers, mouse lemurs, kod kod cats and turtles are all depicted using close shots when they are hunting for prey. The corresponding prey animals are often depicted using a longer shot. Although there are a few exceptions, we are aligned more frequently with the carnivorous predatory animals than the prey

animals using close shot. This is true not only of carnivorous animals, but also herbivorous ones. We get close shots of moose, crossbills, deer, and buffalo grazing on vegetation. As herbivory is a form of predation, these close shots like the shots of carnivores align us with the active predator. The intimacy imputed by these close shots thus aligns us with whichever animal is actively predating. Hence, whilst we may be intimate with a moose when it is eating leaves, we may be distanced when it becomes prey for a carnivorous animal. In *Planet Earth*, then, the camera is constantly shifting perspectives.



As defined above, the medium long shot is a shot in which an individual animal's full figure is depicted. I would argue that creating individual animal agency via medium shot is an essential anthropomorphism. Emphasizing animals as active agents includes them in 'categories of "individuality" and "personhood"' and distances animals from an anthropocentric tradition in which only human beings are identified 'as active creatures' (Aaltola 2012, p. 130). Some examples of medium long shot in this episode evince this kind of individuality visually and narratively: cicadas (*they start to climb*), ducklings (*they won't be safe*), capercaillie (*the injured loser*), owl chick (*if he is to climb to the top of his class*), kod kod cat (*the tiny cat*), Amur leopard (*the mother*). Individuality is realised lexically with the use of definite article *the*, and personal pronouns *he* and *they*. Frequently, when these animals are depicted using a medium long shot, they are represented as having to overcome a certain obstacle: the owl chick must learn to fly; the ducklings must get to the lake; the kod kod cat must find food that he can tackle, etc. In *Zoo Quest*, we noted that the medium long shot was impersonal and that this was racially motivated, frequently drawing parity between animals and local peoples. In *Planet Earth*, however, this shot is individualising, imbuing animals with

agency.

The last shots we will focus on are the long shot and very long shot. Referring again to proxemics, long shot and very long shot suggests that the participants and the viewer 'are and are to remain strangers' (Kress and Van Leeuwen 1996, p. 131). Where long shots are employed in *Planet Earth*, this is made clear usually lexically: 'a lynx' (lynx), 'a specialist' (crossbill), 'it' (wolverine), 'its' (capercaillie), 'a more reliable food source' (squirrels), 'inhabitants' (deer and langur monkeys) ('Seasonal Forests' 2007). The indefinite article (*a*) and the object pronoun (*it*) highlights this impersonal proximity. Unlike the *Zoo Quest* films, in the *Planet Earth* films, this shot type does not suggest an impersonal distance. For example, when the ducklings are walking through the forest to the lake, the camera cuts to a long shot of them jumping over a fallen branch. The camera then cuts to a shot of one of the ducklings ducking under the branch. In so doing, *Planet Earth* highlights the duckling individual's reaction to the same obstacle. Unlike the shot of the heron in *Zoo Quest*, the long shots is not used aggregate and thereby eschew idiosyncratic behaviour.

Visuals Conclusions

The visuals in this section were explored using Kress and Van Leeuwen's (1996) visual grammar model, specifically the part that accorded with cinematography. Hence, I have explored how gaze, angle and framing are employed in these wildlife films. However, I have noted that there were some problems with Kress and Van Leeuwen's (1996) model when applied to animal participants. Given the infancy of multimodal corpora (Baldry and Thibault 2006), this model was deemed most suitable for this study. Whilst I have not been able to use extensive sections of my data sets, I think that I have been able to explore the main ways in which animal representation differs visually in *Zoo Quest* and *Planet Earth*. Also, I would argue that the difficulty of exploring metafunctions across modes (O'Halloran 2004) has given me ample justification to focus on the modal affordance of focalisation.

Even though these images are never transparent, by exploring the ways that animals are focalised in these wildlife films, I have shown that there has been progress in these visual representations. Being aware of these focalisations is crucial, since, as Malamud has argued, visual representation frequently 'place[s] animals' (2012, p. 6). As the verb *place* suggests visual representations are never neutral and are always framed using underlying perspectives and ideologies. Despite 'many thousands of photographic images of animals in their natural habitat', showing '*animals as they should be seen*', Baker remains sceptical of the possibility of ever 'constructing a positive image of animals' (1993, pp. 189-190 – original emphasis). However, this research is more in line with Malamud, who thinks that 'we may productively engage with this cultural construction if we keep our "ethical caps" always on' (2012, p. 6).

6. Music

As with the above semiotic resources, music offers choices that 'have semiotic value' (Van Leeuwen 1999, p. 8). In the methodology, we listed these choices in the domains proposed by Van Leeuwen (ibid). To recap, briefly, music may be timed or untimed, and sequential or simultaneous, etc. As with the other systems we have explored, in describing 'a particular sound event', it is important to 'put them in their historical and social setting' (ibid, pp. 8-9). However, as we mentioned in the introduction and methodology, unlike the semiotic resources of language and visuals, music is 'supplemental to the representation' (Neumeyer 2015, p. 109). But this is not to say that it doesn't affect the representation of animal participants. Indeed, research has suggested that there is 'empirical support for the claim that extradiegetic music influences interpretations of the diegetic world' (Gerrig & Bezdek 2013, p. 100). Hence, depending on how an animal participant is represented through visuals combined with extradiegetic music, the viewer may interpret the animal differently.

We mentioned in the above section that visuals focalise, music, however, 'cannot tell, it can merely aid focalisation' (Edgar-Hunt et al 2015, p. 58). Again, this highlights the different function that these semiotic systems perform. We also mentioned in the methodology that, whilst Zbikowski defined language's function as 'direct[ing] the attention of another person to objects and relations within a shared referential frame', music instead 'provides sonic analogues for a wide range of dynamic processes [...] associated with the regulation of emotions' (2009, p. 364). Hence, the modal affordance explored in this section will be affective involvement. Affective involvement is often aligned with emotions, though I must mention that there is a distinction to be made between 'emotion' and 'affect'. Although 'subjects have emotions', affects 'produce subjectivity' (Agostinho 2012, p. 17). Extradiegetic music, thus, 'does not merely elicit feeling but also influences the spectators concerns and construals, perceptions and cognitions' (Platinga 2009, p. 136). Hence, we

are not exploring the audience's [informant's] emotions towards the animals, but their subjective interpretation of the animal subject given the visual and aural representation.

Sound, however, is very often overlooked in semiotic analysis when interpreting film. Stilwell argues that 'even narrowly focused studies of genres or individual films may omit sound/and or music while still making some claims to comprehensiveness' (2001, p. 168). This is also true of wildlife films.

Indeed, most of the historical studies of wildlife films have ignored extradiegetic music as an important factor affecting animal representation. I found only a few examples of studies focusing on extradiegetic music in wildlife films, and these tended to take an "auteurist" approach, as opposed to the "agency" approach I am taking. Cooke (2015), for example, explores how two auteurs scored music for nature documentaries in ocean ecosystems. He focuses on Yves Baudrier who scored Jacques Cousteau film *Le Monde du Silence* (1956) and George Fenton who scored *Deep Blue* (2003). George Fenton also provided the scores for *Planet Earth*, and next I will give a brief overview of the music producers for *Zoo Quest* and *Planet Earth*.

In both *Zoo Quest* and *Planet Earth*, extradiegetic music is performed by the BBC orchestra. In the 1950s, Attenborough explains that this was due to budget constraints. Hence, *Zoo Quest* 'used discs or works by obscure composers which had been specially recorded by BBC orchestras and could be used in [...] sound tracks at no extra cost' (Attenborough 2003, p. 122). He also states that he thought that using Bartok's music 'to accompany the pounce of a praying mantis' was 'daringly avant-garde' at that time (ibid, p. 122). Attenborough clearly considered the *Zoo Quest* scores to be innovative and "progressive". *Planet Earth's* scoring was performed by the BBC orchestra, but conducted entirely by George Fenton. George Fenton has been involved in many of the BBC's "blue-chip" productions, such as *Blue Planet* (2001), *Planet Earth* and *Frozen Planet* (2011). He is often considered one of 'the most distinguished motion picture composers' working in the contemporary film industry, and has been nominated for five Oscars for his scores in variety of films (Saenger 2000,

p. 58). However, instead of an “auteurist” approach, I have taken an “agency” centred approach which focuses on ‘the role of audience reception’ and accords with our systemic functional and multimodal approach (Neumeyer, p. 535).

In the interpretation that follows, I will explore how extradiegetic music is employed in *Zoo Quest*, and compare it with a similar clip in the *Planet Earth* series. These clips were chosen because they offered a direct comparison between the supplemental representation of animals aurally in *Zoo Quest* and *Planet Earth*. There are six clips in total, and I have summarised each of them below:

Insect Metamorphosis		
Clip one – <i>Zoo Quest</i>	Metamorphosed comet moth appearing from its cocoon.	Sci-fi, alien music
Clip two – <i>Planet Earth</i>	Metamorphosis of periodical cicada	Dramatic, orchestral music
Chimpanzee(s)		
Clip three – <i>Zoo Quest</i>	Jane, the chimpanzee, “playing” in the trees	High-pitched flute music
Clip four – <i>Planet Earth</i>	Chimpanzees climbing the trees and eating figs	Drum music
Snake(s)		
Clip five – <i>Zoo Quest</i>	Gabon Viper moving along the ground	Brass and high-pitched woodwind music
Clip six – <i>Planet Earth</i>	Pythons and other snakes predating on bats in a cave	Synth music

As I mentioned in the methodology section, these 6 clips were shown to informants, who then

answered the questions. The clips were around 1 minute in length. For each clip, I collected 10 responses (5 with sound and 5 without sound). This allowed me to explore how informant interpretations changed when extradiegetic music was employed, as opposed to when it wasn't. Each section will be structured by considering the music itself (the instrumentation and salient features of the piece using Van Leeuwen's domains) and then exploring informant's affective involvement (connection with the animal participants and interpretation of the represented animals). As with the other sections, I will explore the representation of the animal and the underlying ideologies that these musical pieces foreground.

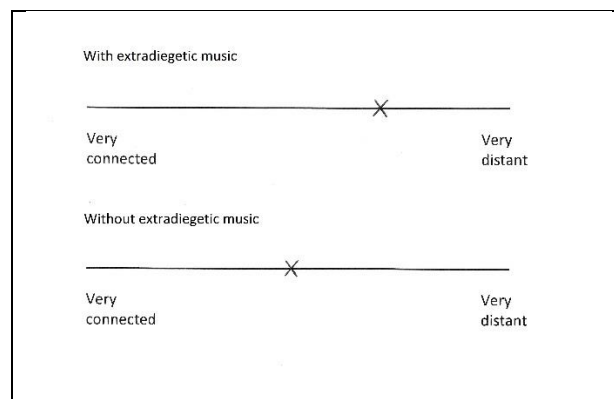
Insect Metamorphosis

Clip one

The instrument used to introduce the comet moth in this clip is a theremin. The theremin is an instrument that was oft-used in science fiction films of the 1950s/60s. The theremin's 'eerie wailing glissando seems to capture a sense of otherworldliness and was often used to accompany the presence of aliens' in these 50s and 60s science fiction films (King & Krzywinska 2000, p. 59). The theremin music then is a musical leitmotiv that creates an intertextual reference to the science fiction genre. I would also describe the music in this scene as loud and overwhelming, creating a feeling of intensity. Van Leeuwen, using Hall's proxemics again, describes this, like the long shot, as enacting public social distance, where 'the relation between the sound and the listener "stretches the limits"' and is thus 'realised by the maximally loud sound' (1999, p. 27). As with the volume, the pitch is another means of enacting this distance. Both the theremin and the piano that works in accompaniment are extremely high-pitched, especially when the animal is first depicted escaping its cocoon. The choice of instruments here that 'can go outside the range of the human voice [...] immediately gives them a "not human" quality' (ibid, p. 109). There is, thus, an overwhelming feeling

of alterity presented by the extradiegetic music. Indeed, we noted in the Lexis Section that arthropods were perceived as a real threat in the 1950s. The fears of an insect invasion were frequently explored in science fiction films, such as *Them!* (1954), which features nuclear-mutated giant ants (Molloy 2011). Here the musical allusion intertextually links to an exploration of anxieties about insect alterity.

With music, then, the animal is depicted as an alien Other. Indeed, this sense of othering can be seen when we look at viewers' affective involvement with the animal. In the questionnaire, I asked the informants: how connected did you feel to this animal? The points (x) on the likert scales below show the averaged informant responses with and then without music. When shown the clip with the extradiegetic music, informants felt more distant with the comet moth, than when the extradiegetic music was not played. I would argue that the use of electronic music in this instance distances the viewer from the represented animal.



The informant interpretation of the animal also differed significantly. In the questionnaire, I asked participants: how would you describe the animal(s)? This allowed me to compare the more subjective responses to the represented animal(s). Hence, the below list includes the adjectives used to describe the comet moth both with and without music:

With music	Without music
small (4)	large (2)
boring	furry (2)
structured	interesting (2)
rigid	patterned
segmented	textured
long	tropical

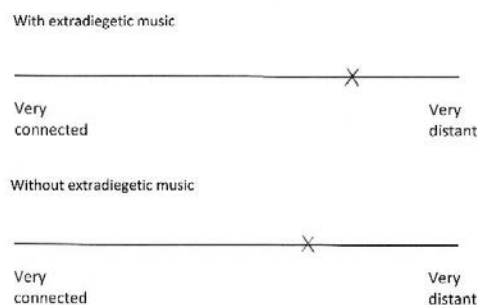
What is most striking about these two lists is the way in which there are lexical items that exhibit an antonymous relationship. The moth is described as *boring* with music, and without music as *interesting*. The same occurs with the lexical items *small* and *large*. This would suggest that this extradiegetic music is having a large impact on informants' affective involvement with this animal. I would argue that whilst the descriptions without music suggest a colder more distant feeling towards the moth, the lexical items without music suggest an intimacy. Compare for example *rigid* and *structured* with music, and *furry*, *textured* and *patterned*. The lexical items with music also seem to highlight body morphology more than the descriptions without music.

Clip two

This orchestral piece features clarinets, strings, and trombones. As may be clear from the instrumentation, the piece is less high-pitched, and more harmonious than the piece in *Zoo Quest*, which often felt quite discordant. Unlike the clip of metamorphosis above, the *Planet Earth* clip does not rely on "popular culture" genre conventions. Indeed, the music in this clip is orchestral, and hence feels more "traditional". Van Leeuwen (1999) suggests that orchestral music is a classic example of homophonic music where the melody becomes the dominant voice, whilst the harmony merely props up the dominant melody. Any orchestra is comprised of 'a large number of musicians

[who] perform music which is [...] masterminded [...] by [...] the baton-wielding conductor in front of the orchestra, the only one to have the full score in front of him' (ibid, p. 82). Thus, according to Van Leeuwen, the orchestra seemingly enacts a relationship of social domination.

This is perhaps illustrated best when one of the cicadas is shown in medium long shot climbing a tree (the cicada's full figure, tightly framed). Here, the medium long shot is accompanied by a sinuous clarinet solo providing melody, and accompanied by the strings and brass which become backgrounded. Here as one of the instruments is foregrounded, so too is an individual cicada. As we mentioned above, the medium long shot is frequently used to emphasise an animal individual's agency. But are the other cicadas backgrounded by this focus on an individual? I think not. Indeed, this clarinet melody continues as the camera cuts to a very long shot of many cicadas climbing the trees. This may help to explain the reason why viewers felt more distant with the cicadas when extradiegetic music was played:



As with *Zoo Quest*, this clip of metamorphosis from *Planet Earth* showed the same tendency: less connection with the animal participant with extradiegetic music. In this clip then, the music and visuals work in synchrony to mitigate any connection the viewer might feel with an individual animal. As such, the cicada 'individual can stand in for and hence be infinitely replaceable, by another of the same species' (Hobbins 2014, pp. 190-191). Here, the cicadas, musically and visually,

are represented merely ‘as objects within ecological assemblages’ (ibid, p. 190). This perhaps emphasises the cicada’s inherent importance within an econiche, but not in and of themselves.

Also, when we compare these two sets of interpretations below, we notice that in opposition to the above *Zoo Quest* clip, the insects are interpreted more favourably with the extradiegetic music. The only negative evaluation of the cicadas with music is *ugly*, but without music we have *unfriendly*, and *creepy*. There are many more positive evaluations associated with the cicadas when extradiegetic music is used, like *independent*, *mighty*, and *strong*. There is also less emphasis on body morphology than in *Zoo Quest*, with the only mention being *winged*. This shift in focus away from body shape may be due in part to the instrumentation. Whereas the *Zoo Quest* clip used the theremin and piano, thereby foregrounding the alien ‘exoskeletons and multiple eyes’ of the moth (Hobbins 2014, p. 190), the *Planet Earth* clip uses the strings (violins and violas) and brass, which gives the metamorphosis sequence an earthy, more mellow sound.

With music	Without music
small (3)	calm
independent	quick
mighty	small (2)
strong	scaly
ugly	unfriendly
brown (2)	creepy (2)
white (2)	
winged	

Chimpanzee(s)

Clip three

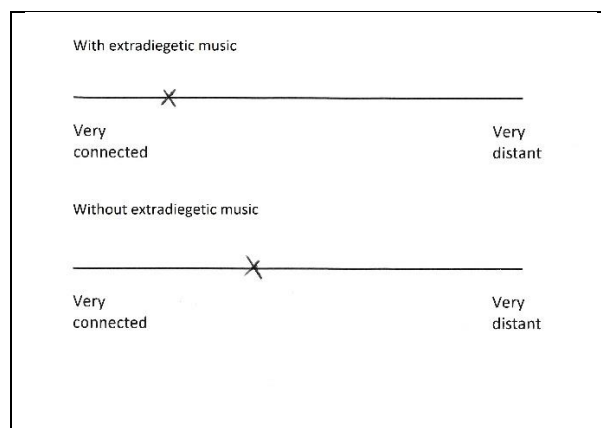
This piece of music, as highlighted by the informants, has an upbeat feel. This can perhaps be accounted for by the light and breezy piano, violins and woodwind instruments (flutes, piccolo). The music is also played at an extremely fast tempo. Indeed, following Fonagy and Magdics (1972) classification of emotional patterns in music, Van Leeuwen suggests that joy is expressed melodically as possessing a 'wide pitch range at high pitch level' where 'the melody rises, then falls sharply, then stays level' with a 'lively tempo' (1999, p.95). The music in this clip certainly has a joyous melody.

Like the above clip of the comet moth, this extradiegetic music is also an allusion to 1950s "popular" culture. This tune in particular is used in various sitcoms/commercials of the 1950s to accompany idealised visions of the domestic housewife (johny ellika 2015, Historia - Bel99TV 2014). For example, whilst she is busy going about her domestic chores, a similar tune is used for June Cleaver, the "mom" and "wife" in 1950s American sitcom *Leave it to Beaver* (McCracken 2002). Indeed, in the 1950s 'television developed a highly codified series of narrative conventions to represent [...] a middle class utopia, [...] to showcase the suburban wife as the ultimate symbol of [...] domestic bliss' (Sconce 2000, p. 147). Sconce also refers to the way that the studio soundstage of the 1950s was 'imprinting a vision of domestic bliss on film' (2000, p. 148). Here, extradiegetic music signified a discourse which aimed to deny the restrictive role of "housewife" that was imposed upon women in the 1950s. In this clip, the extradiegetic musical allusion to the idealised housewives is not coincidental.

Here, driven by the musical allusion, Jane becomes a dependent and passive animal. Indeed, she appears to be happily accepting her move into a "civilized", domesticated role. Many retrospective commentaries on the idealised housewife speak of the "home" becoming a prison for the

“housewife”. As with women in the 1950s, Jane is seemingly coerced into happily accepting her eventual confinement to a cage. Indeed, the conflating of a cage with domesticity and comfort is made clear when Attenborough refers to it as ‘a nice, warm cage’ (*Zoo Quest for a Dragon: Episode 1* 1956). Hence, the ethics of capturing a wild juvenile animal and moving it to London Zoo are obscured by the musical allusion. Jane is represented as wanting to become a “civilised” and domesticated animal.

Certainly of all the clips we have and will look at Jane, the chimpanzee, is the participant to whom the informants have felt the most connected. The informants felt more connected to Jane when the extradiegetic music was played than when it wasn’t.



Here, I agree with Van Leeuwen (1999) that to focus on the passive “expressing emotions” perspective of this melody does not portray the whole picture. It is most certainly used to represent Jane’s “joy”, but there is also another way we can read this music. Van Leeuwen (ibid) has suggested that we must read musical melodies not only passively, but actively. He suggests that the melodies themselves constitute a *sound act*. As such, the music that accompanies Jane doesn’t just “express joy” but it does itself delight. This might be the reason for high levels of affective involvement with this animal.

We mentioned above that, whilst this music is joyous, it also creates allusions to a utopian, domesticated, and industrious housewife trope. Indeed, this seems to have affected how informants interpreted the clip of Jane in the tree. Whilst informants tended to describe the clip with and without music in a similar way (the chimpanzee climbs the tree, eats leaves, and swings around), when music was not played two of the informants interpreted the chimpanzee as playing, whilst none did so with music. Perhaps, this is because the music, as mentioned above, encodes a domestic undertone. Indeed, ‘praise of the industrious housewife’ was common, and seemed to accord ‘with a more general work ethic, which was still strong in the 1950s’ (Loehlin 1999, p. 135). “Play”, then, cannot be readily associated with the industrious, domestic melody. Hence, “play” can be incorporated when the extradiegetic music is not employed, because the music isn’t directing the interpretation towards this end.

With music	Without music
small	little
active (2)	cute (5)
young	innocent
little	gentle
friendly	small
clever	vulnerable

Also, we might notice the differences between descriptions of Jane with and without music. One of the words used in describing Jane with music is *active* which seems to connote again an industriousness, and is perhaps perpetuated by the fast tempo of the music. The slight differences in the lexis with music (*friendly*) and without music (*gentle*) are also in accord with our above analyses. Hence, *friendly* features collocations which highlight interaction (*co-operation, rivalry, contact*), but

gentle does not (British National Corpus 2007). Again, this emphasises a domesticated incorporation of Jane within the human sphere.

Unlike the above clips of metamorphoses, there aren't any overtly negative evaluations of Jane. However, we have a few lexical items that are diminutive *small* and *little* both with and without extradiegetic music, and *vulnerable* and *cute* solely without music. We might suggest that the list of adjectives with extradiegetic music construe a more active agent than the list that occurs without music (*active, clever, friendly*). Without music the most frequently used adjective was *cute*. As a concept, "cuteness" 'disempowers its object, [...] making them appear more ignorant and vulnerable than they really are' (Nodelman 2015, p. 46). With music, Jane is interpreted as an empowered participant, and visually she is shot using a low angle. Without music however, Jane is interpreted as powerless. This is perhaps a subversive interpretation given that Jane would spend her life in a zoo.

Clip four

The music in this clip is drum music. As drum and bass music exemplifies, drum music foregrounds rhythm over melody. Here the *figure*, defined as 'the most important sound' are the hand drums (the congas), whereas the *ground*, defined as 'part of the listener's world but only in a minor [...] way', is a keyboard sound (Van Leeuwen 1999, p. 23). The keyboard plays a repetitive, drawn-out droning sound, whilst the drums play a rhythm which is foregrounded. Unlike the clip in *Zoo Quest*, then, rhythm is here foreground instead of melody. The instrumentation of this piece of music is key to the sense of foreboding that this piece of music portrays. The tenseness is here created by use of different size drums. Indeed, congas are composed of three sizes of drum: quinto, conga, tumba. In this clip, we switch between drums, from deeper more resonant drums to smaller less resonant drums. In so doing, the music mimetically enacts the tensing of human vocal cords. We get a lax sound from the deeper drum, and a more tense sound from the higher drum. In effect, this music

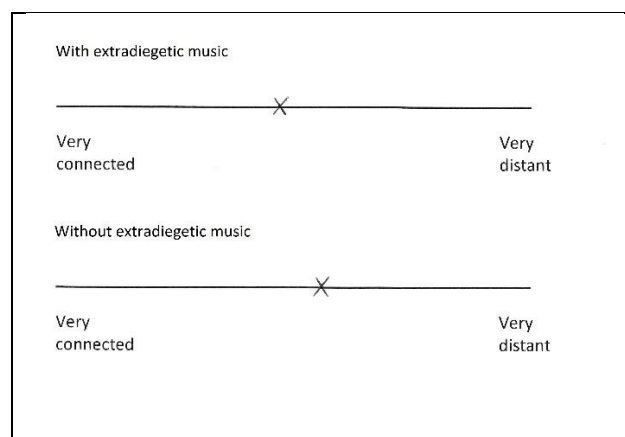
‘not only is tense, it also means “tense” – and *makes tense*’ (Van Leeuwen 1999, p. 131 – original emphasis). Drums, including the African congas, are often used as an aural accompaniment to “making” war (Radanovich 2009). I think drum music is used in order to suggest a repressed aggressive instinct among the chimpanzees. This is backed up visually by the medium long shot of a chimpanzee who has a scarred eye – presumably, from some conflict.

This permeates how the informants then interpreted the chimpanzees. Some of the examples with music implicate the chimpanzees in aggression: *not aggressive, threatening*. Despite *aggressive* being used with negative polarity, when we use negative polarity (a marked form), we are presupposing that at some point the chimpanzees do display this characteristic. Hence, the aggressiveness is repressed, just below the surface. We also might note the difference in lexis with music (*big* and *strong*) compared with no music (*large* and *powerful*). These are only slight changes in lexis, but semantic prosody is slightly different in each case. For example, *strong* suggests only a physicality, whereas *powerful* suggests a kind of authority. In both cases the lexis with music connotes an animality, whilst the lexis without music aligns the apes more with humans (*human-like, intelligent*). However, this clip with music and without does share some similar perceptions, like *friendly*, and *social*.

With music	Without music
big	friendly
strong	large (2)
social	powerful
not aggressive	social
friendly	intelligent
threatening	human-like

Unlike the above clip from *Zoo Quest*, there is more than one animal represented in this clip from *Planet Earth*. When more than one animal participant was shown I asked the informants: which animal did you feel most connected to? In the clip without music, all the participants agreed that they had felt most connected with the chimpanzee who was eating figs. However, when extradiegetic music was played, there was no such agreement. Whilst one informant felt connected with the chimpanzee eating figs, one viewer stated the “leader”. However, others didn’t show any preference for a particular chimpanzee. What effect does the music have on the aggregation we see here? Perhaps the “war-like” nature of the drum music leads viewers to aggregate these chimpanzees, seeing as war is a collective activity.

Despite the aggregation and aggressive undertones, we find the opposite of what I was expecting when looking at affective involvement. Viewers seemingly felt more connected with the chimpanzees when extradiegetic music was employed:



Why is this the case? Shouldn’t viewers feel more aligned with the chimpanzees when the more peaceable, vegetarian aspects of their nature are emphasised? Perhaps, this is due to the prevalence of the myths formed by sociobiology, particularly the myth that aggression in human males is ‘inherited from our ancient relatives’ (Sussman 1999 p. 125). Hence, given their close phylogenetic relationship, chimpanzees offer a ‘good model’ for the aggressive instincts of our earliest ancestors

(ibid, p. 125). Having followed this myth throughout a number of sociobiological evolutionary theories of human male aggression, Sussman believes that the myth has been culturally transmitted because they align this behavioural inheritance myth with Euro-Christian beliefs, like Original Sin. Indeed, as he suggests the 'data supporting these theories is extremely weak' (ibid, p. 128). He thus concludes that "'Man the Hunter" is a myth, and that the myth will continue in Western European views on human nature long into the future' (ibid, p. 128). In this clip, then, informants potentially felt more connected to these chimpanzees through zoomorphic projection aided by the extradiegetic music.

Snake(s)

Clip five

The instruments used in this clip are brass instruments, which are used to introduce the snake, and then high-pitched woodwind (piccolo or fife). Like the clip of the comet moth, this clip also alludes to "popular" culture, but the genre instead is horror. This intertextual reference to the horror genre is signalled by dissonance. Dissonance constitutes 'awkward and jarring musical sounds and combinations of notes' and was itself a signifier of the horror genre (Hutchings 2004, p. 146). In this clip, dissonance is achieved through the switch from diegetic drum music, played by the local peoples, to extradiegetic music used to introduce the snake. This jarring switch from rhythmic drum music to the blaring brass of the orchestra creates aural dissonance. Unlike, the drum music in the chimpanzee clip, the drums here are not *figure*, but *field*. Indeed, in the shots prior, Attenborough's narration is *figure*, the high-pitched chanting is *ground* and *field*, defined as 'not in the listener's social world, but his or her physical world', is the drum music (Van Leeuwen 1999, p. 23). Hence, dissonance is not created solely through switching of instruments and notes, but also through the foregrounding of the music. The viewer, comfortable with the backgrounded rhythm of the drums, is

assaulted by the sonorous brass warning.

This warning is known, in film terminology, as a “stinger”. A stinger is ‘a single sustained musical note [...] used to punctuate a dramatic moment in the film’ (Beaver 2007, p. 170). In so doing, the extradiegetic music here is in ‘direct coordination with the image allow[ing] music to serve as an expressive sound effect’ (ibid, p. 170). This coordination is a technique known as “mickey-mousing”, where the music and image are putatively working synchronously. Hence, when the snake appears on screen for the first time, its poisonous, threatening “nature” is highlighted by the extradiegetic music. Of course, this is anything but neutral. Indeed, the stinger has ‘the reputation of being an underhanded, lowbrow manoeuvre’ (Cheng 2014, p. 107).

Cheng has analysed the stinger itself as ‘a single blast of sound’ that ‘represents a monster that cannot be tamed by discourse’ (ibid, p. 107). Hence, this is a sound act that doesn’t just express “horror” it horrifies. In the 1950s, this technique was often used in horror films to accompany the appearance of the “monster”. Indeed, the 1950s was ‘a period when horror music begins to separate itself out as a distinctive category of film music’ (Benshoff 2014, p. 53). A more contemporary example would be the use of stinger in a scene from *Jaws* (1975): Chief Brody is spooning chum into the water at the back of the boat when the shark appears without warning. Here the musical leitmotif so synonymous with the shark is eschewed in order to shock the viewer. Considering that the shark’s musical leitmotif ‘does not merely signify its presence, it is its presence’, we can interpret the stinger, and the shark’s lurch towards Chief Brody, as an intentional act of concealment by the shark (Donnelly 2005, p. 93). Here the “stinger” indicates the horrific and aggressive “nature” of the shark.

After introducing the snake, the extradiegetic music then switches from loud sonorant brass to a piercing woodwind melody. The piccolo and fife are instruments that ‘sound [...] so piercing’ that

they ‘can always be heard, even when the full orchestra is playing loudly’ (Wright 2014, p. 36). The high-pitch of the music is used to keep the viewer alert. Indeed, ‘music which lacks lower sonorities has long been used to depict frightening situations’ (Rieger 2010, p. 143). This is punctuated only very occasionally by blaring brass which is again used to create aural dissonance. Visually, the snake is depicted using a back, high angle in close shot which tilts to follow the snake. The close shot here, like its use with the comet moth, makes the viewer feel uncomfortably close with the snake. The extradiegetic music and visuals combined allow viewers to become ‘immersed within the diegetic reality of the on-screen monster’ (Tompkins 2010, p. 109).

As with the other clips, the extradiegetic music cues lead informants to interpret the snake’s actions differently with and without music. This is most clearly shown when participants were asked to describe the clip. In this clip, the snake is filmed moving along the ground. Both with music and without, the snake is described as *slithering across the soil, moving into a bush, moving through vegetation, climb[ing] a tree, moving through some leaves, slithering through an area of ground*. However, with extradiegetic music, one of the participants suggested an intention to the snake’s movements: *moving [...] towards people*. The snake is thus interpreted by this informant as on the offensive. Indeed, ‘the most basic definition of the monster is predicated on action – on the monster being an entity that attacks or threatens us’ (Hutchings 2004, p. 158).

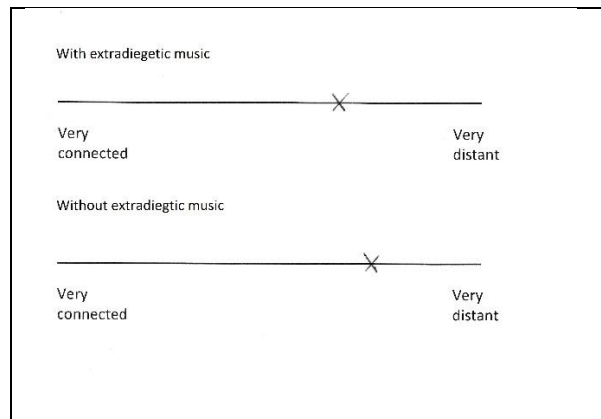
Given that the snake is represented aurally as “monstrous”, I was expecting to find the snake described more negatively with music. However, this is not the case.

With music	Without music
deadly	small
unappealing	lovely pattern

striped	patterned (2)
long (2)	slow
unusual	dangerous
silent	beautiful
passive	colourful
thin	
patterned	
beautiful	
calm	

Certainly, both lists include terms that are pejorative with *dangerous* in the list of items without music and *deadly* and *unappealing* in the list with. But, there is also a mix of ameliorative description: *lovely pattern* and *beautiful* both with and without music. There are also many other lexical items that are more neutral (*calm, silent, unusual, colourful, slow*). This was quite unexpected. Exploring the ways in which horror and suspense appeals to viewers, Oliver and Sanders have suggested that viewers might be attracted to villains because, despite their monstrosity, they often possess ‘minimally appealing characteristics that viewers admire’ (2004, p. 254).

The extradiegetic music as we said is considered synchronous with the “monstrosity” of the snake. It does not offer us an ironic detachment with the snake, but instead aligns us with the snake in a way that, I think, few of the *Zoo Quest* clips achieve. Indeed, if we look at affective involvement with the snake it actually increases when the extradiegetic music was incorporated:



This is due in part, I believe, to the enjoyment viewers receive from horror. One of the questions viewers were asked was: did you enjoy this clip? With extradiegetic music 3 of the viewers stated that they had enjoyed the clip, whilst 2 did not. However, without music 3 didn't enjoy the clip, whilst 2 viewers said they didn't like or dislike it. The extradiegetic music here allows viewers to indulge in 'voyeuristically consuming violence at a [...] distance' (Tompkins 2010, p.107). Of course, there is no violence in this clip, but there is the *threat* of violence. This clip then allows the viewers to be complicit in the threat of the snake, and thereby enjoy its "snake-ness". The snake is represented aurally as monstrous, but despite this viewers felt more connected with the snake when music was employed.

Clip six

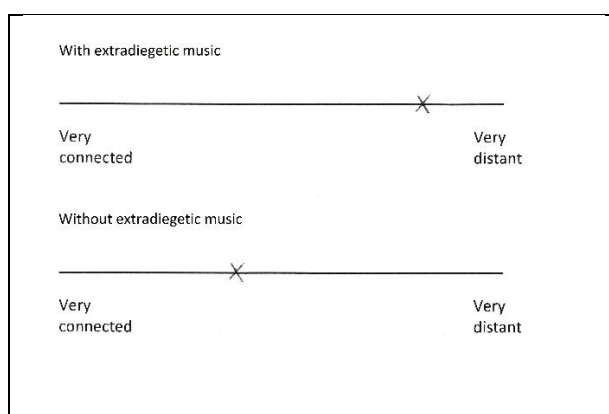
The music in this clip is a low, monotonous synth note, like the music that was backgrounded in the chimpanzee clip (clip four), and hence, the music does feel quite subdued. This is only punctuated by sound effects that highlight the snake's bite. The synth music here creates a droning sound. Drone, characteristic of unmeasured music, is a continuous, never-changing sound, which was and is popular in Medieval and Indian music (Van Leeuwen, 1999). The drone is often used to signify the non-human, but 'its quality of being "not human" is [...] available for the production of more specific meanings in the specific contexts in which drone sounds may be used' (Van Leeuwen 1999, p. 52).

Hence in its usage here the point is to represent the “non-human” nature of the snake, but also the eternal ‘never-ending, never-changing’ nature of it (*ibid*, p. 52). Van Leeuwen has argued that in Western music ‘unmeasured time is often used for signifying the grandeur of nature’ (*ibid*, p. 52). But, through the use of electronic synthesizer, the music in this clip has a coldness that characterises the snake as menacing, and extremely primitive. The music itself seems to suggest an eternal stasis for the snake. Indeed the oft-quoted thing about reptiles is that they “remain unchanged for millions of years”.

The cold-bloodedness of the snake is perhaps what is represented by this music with the cold, synthetic tone. Cold-bloodedness is not merely a means by which an animal regulates its body temperature, but also has a number of cultural presuppositions about the “character” of the animal. Indeed, one of the key definitions of coldblooded is ‘without emotion or pity’ (OED Online 2015). The sound effects do seem to support this interpretation. As the snake attempts to catch the bats, the sound effect, a guttural sharp hiss, accompanies the bite of the snake. Here, the hissing sibilance creates a fricative sound that is produced by ‘constricting the air stream’ (Van Leeuwen 1999, p. 148). The hiss, then, becomes a mimetic signifier for the snake’s cold, “unsympathetic” killing method: constriction.

Before we consider informant interpretation, it is worth drawing attention to the fact that this clip is slightly different to the other clips I have used in this section. This is because there are a number of represented animals, which are not the same species. And unlike the other clips with multiple animal participants, the relationship between these animals is antagonistic, featuring scenes of carnivorous predation. Hence, informants had to choose which animal to whom they felt most connected. With extradiegetic music, the informants were aligned more frequently with the bats than the snakes, whilst without music informants were aligned evenly between bats and snakes. Hence, extradiegetic music here does not align the informants with the visually focalized snakes.

Of the informants that chose the snakes over the bats, they felt more connected with the snakes when extradiegetic music wasn't employed, than when it was. Indeed, this is the biggest difference in affective involvement shown in all of the clips, despite the snakes being involved in active predation. Certainly, I wasn't expecting this result. Hence, the extradiegetic music used in this scene creates distance rather than involvement with the snakes.



This is also evinced when looking at how informants have described the snakes. What is noticeable is that when extradiegetic music is employed the predatory nature of the snakes is more prevalent (*predator, aggressive, determined, dangerous*), whereas, when we look at the description without music, the predatory nature is not highlighted. Both with and without extradiegetic music, the bats and the snakes are compared using antonymous lexical items. Without music, we have the antonyms *natural* and *mysterious*; *quick* (and synonyms *frantic, responsive, hectic*) and *slow*. But with extradiegetic music the antonymous lexical items are more loaded: *innocent* and *evil*; *predator* and *prey*. In both cases, opposition between these two species is encoded lexically, but the extradiegetic music has distanced affective involvement with the snake.

With music (bats)	Without music (bats)	With music (snakes)	Without music (snakes)
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innocent	hectic	evil	scary
prey	responsive	determined	slimy
	busy	aggressive	mysterious
	frantic	dangerous	slow
	natural	predator	
	quick		

Signalled largely by the extradiegetic music and the use of drone, this distance is created by representing the snakes as unchanging and primitive. However, this is not really a fair assessment. As Brelvi has suggested ‘much of the plumbing, wiring and morphology of the primates [...] have been unchanged for millions of years’ (2010, p. 72). If even the group to which humans belong has itself remained unchanged for so long, along with other mammalian animals like bats, why present mammals as so much more “advanced” than reptiles? Indeed, research has suggested that ‘natural selection has only limited freedom to alter basic body plans’ (ibid, p. 72).

Music Conclusions

This section explored the music in six comparative clips, loosely employing Van Leeuwen’s (1999) domains of music description. Given this research’s multimodal, semiotic approach, this was supplemented by informant response feedback in order to explore the modal affordance of extradiegetic music: affective involvement. This stressed not only how connected informants felt towards these animals, but also their subjective interpretation of the represented animals. By highlighting the difference between interpretations with and without music, this research is in accordance with others (Tan, Spackman & Wakefield 2008). Indeed, the interpretations of represented animals did change when extradiegetic music was employed, but this change was not always favourable. Hence, this research is not in accord with others writing on documentary film

music. Rogers, for example, has suggested that the scores of Fenton were 'not designed to lead spectators into certain narrative positions' (2015, p. 10). Indeed, Rogers further elaborates that Fenton's scores 'accompany and highlight the images' of animals, using 'sweeping scores that seek [...] to humanise the creatures depicted' and 'to create empathy' (ibid, p. 10). Here, the analysis of Fenton's scores purports that "naturalistic" musical accompaniment is possible. It also suggests that Fenton's scores are essentially anthropomorphic, creating connection. However, I noted the opposite in some cases, especially with the snakes. Discussing the extradiegetic music in the tragic finale of *King Kong* (1933), Palmer suggests that Kong's 'music is required [...] to explain to the audience what is happening [...], since the camera is unable to articulate Kong's intuitive feelings of tenderness towards his helpless victim' (1990, p. 93). Although this is not a documentary film, I think this may still apply. Extradiegetic music in these documentary films, projects "inherent" emotions/characteristics of these animals: alterity, aggression, cold-bloodedness. As with the other semiotic modes I have explored, this research emphasises the importance of critical engagement with extradiegetic music and how it affects animal representation.

7. Conclusion

In this research I have explored how animals are represented via different modes in wildlife films narrated by David Attenborough. Given the lack of research on the British wildlife film tradition, I focused on Attenborough because of his vast influence over the development of this tradition. I have also attempted to apply a number of frameworks that would allow me to explore a comprehensive multimodal approach. This applied bottom-up approach has allowed me to show how ideologies are manifested in the texture of the discourse itself, and is in opposition to the top-down genre based approaches frequently explored by historical critiques of the wildlife film. I explored the primary meaning-making systems employed in these wildlife films, focusing on language, visuals and music. In order to do so, I had to restrict this study to a single modal affordance for each semiotic resource: lexis explored categorisation, grammar explored interrelationships, visuals explored focalisation, and music explored affective involvement.

An analysis of the keywords used in these wildlife films highlighted 3 key categories of focus. When the keywords were present in both corpora, I explored the lexical prosody of the item in the discourse context. Hence, I found that, whilst *animal(s)* and *creature(s)* were employed with a negative semantic prosody in *Zoo Quest*, *Planet Earth* went to great lengths to enhance positive associations with these items. When the keywords were not present in both corpora, I explored how *Zoo Quest* and *Planet Earth* categorised animal beings using different synonyms, focusing on “meaning systems” as they ‘mirror the dominant ideology of a society’ (Sommer 2000, p. 123). In so doing, *Zoo Quest* and *Planet Earth* frequently categorised animal participants differently. For example, *Zoo Quest* employs the lexical item *beast(s)*, which I discovered underlined a different view of evolution (Lamarckian), rather than that employed in *Planet Earth* (Darwinian). When I explored the attacking and defensive morphological categories, I found that *Zoo Quest* often employed the most overtly aggressive terminology, and semantic prosody analysis showed that even defensive

features became attacking features. *Planet Earth* tended to employ more neutral categories, if it mentioned them at all. The lexical items used for juvenile animals switched from anthropocentric (*baby*) to animalcentric (*cubs, chicks, calves*) categories. In *Zoo Quest*, the use of anthropocentric categorisation allowed for unquestionable incorporation of juvenile animals into the Western world. However, in *Planet Earth*, the progressive development of animalcentric categorisation for juvenile animals could still be undermined, especially when focalised from a predatory animal's perspective.

In the Grammar Section, I explored 500 clauses from *Zoo Quest* and *Planet Earth*, using Halliday's (2004) transitivity framework. I focused on the principal process types of material, mental, verbal and relational. In the analysis, I looked at how the process types and participants differed in *Zoo Quest* and *Planet Earth*. This allowed me to focus on the interrelationships between represented animals. In material processes we noted that many of the process types used in *Zoo Quest* were transformative (destructive), whilst *Planet Earth* used slightly more creative processes. *Zoo Quest* also encoded relationships of antagonism, whilst *Planet Earth* frequently highlighted mutualistic relationships. Goal participants included prey and predatory animals. However, I suggested that although this highlights a relationship of predation, this was not very reciprocal, since prey animals were more frequently goals than actors. Mental processes also highlighted the passivity of prey animals in relation to predators via cognitive processes. Again, *Zoo Quest* suggested antagonistic processes (*dislike*), whilst *Planet Earth* highlighted positive ones (*love*). Verbal processes tended to encode relationships of power (dominant – subordinate) as many of the processes were of the imperating subtype. With relational participants, I explored how animals in *Zoo Quest* were frequently identified with values which positioned them as prizes or property of humans. *Planet Earth*, however, identified animals as possessing values which related them to their econiche.

Visuals were explored using Kress & Van Leeuwen's (1996) framework of gaze, angle and framing. This allowed me to explore the modal affordance of focalisation. I found that offer gaze was the

predominant mode for representing animals in *Zoo Quest*. This was usually linked with the intradiegetic gaze of Attenborough which focalised these animals through a white European gaze. Very few of the animal participants in *Zoo Quest* were represented using demand gaze. Whilst *Planet Earth* too employed offer gaze, most of the animals were represented using demand gaze shots during the narrative vignettes. *Zoo Quest* also represented animal participants using side and back view, and as with the offer gaze, this tended to distance animals. *Zoo Quest* also employed an anthropocentric fixed camera position which necessarily entails more reliance on angle. But *Planet Earth* tended to employ frontal angle, and a less anthropocentric camera. Unlike *Zoo Quest*, *Planet Earth* focalised varying animal's perspective using low angle and worm's eye view. Framing in *Zoo Quest* tended to highlight alterity, rather than intimacy. The medium shot in *Zoo Quest* tended to aggregate, whereas in *Planet Earth* it created individuality. And lastly the long shot whilst used to dismiss idiosyncratic behaviours in animal individuals in *Zoo Quest*, did not do so in *Planet Earth*.

I employed Van Leeuwen's (1999) framework for music description and informant response feedback in order to explore musical representation in these wildlife films. In order to show how music creates meaning I compared informant responses both with and without music, allowing me to explore the modal affordance, affective involvement. Six clips were analysed using comparable scenes from *Zoo Quest* and *Planet Earth* (insect metamorphosis, chimpanzees, and snakes). In the insect metamorphosis clips, both *Zoo Quest* and *Planet Earth* distanced the informants when music was employed. This was done through alterity in *Zoo Quest*, which increased informant awareness of body morphology. In *Planet Earth*, aggregation was instead foregrounded. With chimpanzees, the informants felt more connected with the animal participants when music was played. However, the music employed in *Zoo Quest* subversively led informants to interpret Jane as an empowered subject. In *Planet Earth*, however, the music led informants to interpret the chimpanzees as physical and aggressive. Finally, in *Zoo Quest* informants felt more connected with snakes when music was played, despite attempts to represent the snake as monstrous. However, the opposite was true in

Planet Earth. Informants felt more distant with the snakes when music was employed because it drew attention to the coldblooded character of the snakes. Though, here, I would add that one of the limitations of the informant response study was the low number of informants and hence this study would need to be repeated for a more definitive analysis.

More generally, in *Zoo Quest*, animals are objectified, their suffering (physical or psychological) eschewed, and they are represented as colonial prizes. This representation is, of course, commensurate with the ideologies of the expedition/hunting sub-genre. In *Planet Earth*, with its ecological framing, animals are autonomous agents, who remain unincorporated within the human sphere and are represented as beings integral to (and dependent upon) their ecological niche. But despite these general representations, I have shown that analysing the different semiotic systems has given a complex picture of the historical shifts in these wildlife films. Hence, tracking each mode from *Zoo Quest* to *Planet Earth* has shown that some modes (language (lexis) and visuals) have achieved a less anthropocentric and more animalcentric representation than others (language (grammar) and music).

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APPENDIX I: KEYWORD CLOUDS.

Key word cloud (Zoo Quest with LOB corpus)

This shows up to 100 significant items from the top of the LL profile.
Only items with LL > 6.63 (p < 0.01) are shown.
Larger items are more significant.
Underused items are shown in italics.
Move your mouse over each item to show extra information in a tooltip.
Click on a word to show the concordance.

ancestors animal **animals** ants **bali** Balinese big bite Borneo brown bush
but cant catch chameleons Charlie couldnt creature **creatures** dragons egg
eggs enormous extraordinary **forest** goats got hed her here id ill im in_fact indeed indris insects
island isnt **its** ive Java jaws Komodo leaves **lemur lemurs** little lizard
lizards longhouse looking_for **Madagascar** monkey monkeys *n't* nest nests **nt**
on_our_way **one** orang-utan orang-utans our picathartes python quite really rice river **S she** snake so spines
temple termite thats them there theres **they theyre** theyve this tiny trap tree trees **us**
very village wasnt wasp **We** wed well were wouldnt zoo

Key word cloud (Planet Earth with BNC written corpus)

This shows up to 100 significant items from the top of the LL profile.
Only items with LL > 6.63 (p < 0.01) are shown.
Larger items are more significant.
Underused items are shown in italics.
Move your mouse over each item to show extra information in a tooltip.
Click on a word to show the concordance.

across *and* animals arctic **are** bats **but** calf can cant **cave** caves chicks
creatures cub **cubs** desert earth eggs elephants energy female females fish
food forest forests giant grass *grow* *had* *he* herd **here** *his* hunt **ice** island
its jungle largest leopard life limestone lions male males metres miles monkeys mountain mountains must nt
nutrients penguins plains **planet** plankton predators prey reach rivers *said* sand
sea seals *seas* seasonal shark shes slopes snow so south squid suns surface survive the **their**
theres **these** they **theyre** theyve trees tropical underground vast **was**
water waters *we* *were* *who* winds winter worlds you

Key word cloud (Zoo Quest with Planet Earth corpus – OVERUSED)

This shows up to 100 significant items from the top of the LL profile.
Only items with LL > 6.63 (p < 0.01) are shown.
Larger items are more significant.
Underused items are shown in italics.
Move your mouse over each item to show extra information in a tooltip.
Click on a word to show the concordance.

about ancestors **and** asked babies bali Balinese because bush called Charlie creature dance
did enormous film found going_to got had had_to he him his i id im in_fact indeed
indris it Java Komodo lemur lemurs little London Madagascar man me music my name noise nt
obviously of_course on_our_way one our people picathartes quite really rice s **said** saw
say see **seemed** should snake so_that temple that them then there things told try unfortunately **US** very
village wanted **was** wasnt **we** wed **well** were what **which** who
would yards **yes** **you** zoo

Key word cloud (Planet Earth with Zoo Quest corpus – OVERUSED)

This shows up to 100 significant items from the top of the LL profile.
Only items with LL > 6.63 (p < 0.01) are shown.
Larger items are more significant.
Underused items are shown in italics.
Move your mouse over each item to show extra information in a tooltip.
Click on a word to show the concordance.

arctic **are** *bacteria becomes brings broad calf* **can cave** *caves chance conditions* **cubs**
desert **earth** *elephants* **energy** *falls fish food forests frozen giant* **grass** *greatest grow has have herd*
here high **ice is** *its land* **life** *limestone lions male males may* **metres** *miles moisture*
months mother mountain mountains must north nutrients peaks penguins plains planet
plankton **predators prey rain reach** *reaches rich rivers* **sea** *seals seas seasonal single*
slopes snow *source south* **spring** *squid* **summer** *sunlight suns* **support surface**
survival **survive** *temperate* **the their these theyre underground Vast water**
waters *will* **winter worlds**

APPENDIX II: CORPUS SIZE WITH TOTAL TOKENS AND WPM.

1950s data

Zoo Quest to West Africa 4857	Zoo Quest for a Dragon (1) 2826	Zoo Quest for a Dragon (2) 2684	Zoo Quest for a Dragon (3) 2044	Zoo Quest for a Dragon (4) 2152
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Zoo Quest for a Dragon (5) 2403	Zoo Quest for a Dragon (6) 3057	Zoo Quest to Madagascar (1) 3729	Zoo Quest to Madagascar (2) 3736	Zoo Quest to Madagascar (3) 3094
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Zoo Quest to Madagascar (4) 3168	Zoo Quest to Madagascar (5) 2862
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Words per minute 97	Total tokens 36612
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2010s data

Planet Earth (1) 2680	Planet Earth (2) 2567	Planet Earth (3) 2118	Planet Earth (4) 3027	Planet Earth (5) 2982
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Planet Earth (6) 3079	Planet Earth (7) 2429	Planet Earth (8) 3221	Planet Earth (9) 2860	Planet Earth (10) 2902
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Planet Earth (11) 2939

Words per minute 58	Total tokens 30804
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APPENDIX III: QUESTIONNAIRE WITH MUSIC.

Informed Consent Form

Katherine Pearce is carrying out a study on the representation of animals in nature documentaries. As part of this study, she will show the participants (you) clips of animals, including scenes of predation, and ask the participants to write responses to the clips. The results will be used in a Masters' level thesis. In writing about the results of this questionnaire, the answers that participants provide will be anonymised. If participants decide that they wish to withdraw from this study at a later date, they can contact Katherine Pearce at

By signing this form, I certify that Katherine Pearce's research project has been satisfactorily explained to me and that I consent to participate in it in the ways described above.

Name: _____

Signature: _____

Date: _____

1. Please describe the clip you have just seen.

2. Did you enjoy this clip? Why?

(Adapted from Johnstone, B (2000) *Qualitative Methods in Sociolinguistics*. New York: OUP.)

If there was more than one animal in the clip, please answer these questions:

3. What is the relationship between the animals? **(Please draw a × on the line.)**

Very
friendly

Very
hostile

4. How would you describe the animals?

5. Which animal did you feel most connected to?

6. How connected did you feel to this animal? **(Please draw a × on the line.)**

Very
connected

Very
distant

If there was only one animal in the clip,
please answer these questions:

3. How would you describe the animal?

4. How connected did you feel to this animal? (Please draw a × on
the line.)

Very
connected

Very
distant

5. ×

6. ×

Before the next few questions, we will
watch the clip one more time. Please wait
for the other participants to finish.

Thank you.

7. Did you notice the music in this clip?

Yes No

8. How would you describe the music?

11. Who narrated this clip?

9. Do you think the music was appropriate for this clip? **(Please draw a X on the line.)**

Very
appropriate

Very
inappropriate

10. Did you find the narration informative? **(Please draw a X on the line.)**

Very
informative

Very
uninformative

Sex:

Female

Male

Age:

18-25

26-30

31-40

41-50

51 >

Highest educational level achieved:

Postgraduate

Undergraduate

Secondary school

Primary school

If you are currently a student at university, what are you studying?

APPENDIX IV: QUESTIONNAIRE WITHOUT MUSIC.

Informed Consent Form

Katherine Pearce is carrying out a study on the representation of animals in nature documentaries. As part of this study, she will show the participants (you) clips of animals, including scenes of predation, and ask the participants to write responses to the clips. The results will be used in a Masters' level thesis. In writing about the results of this questionnaire, the answers that participants provide will be anonymised. If participants decide that they wish to withdraw from this study at a later date, they can contact Katherine Pearce at

By signing this form, I certify that Katherine Pearce's research project has been satisfactorily explained to me and that I consent to participate in it in the ways described above.

Name: _____

Signature: _____

Date: _____

(Adapted from Johnstone, B (2000) *Qualitative Methods in Sociolinguistics*. New York: OUP.)

1. Please describe the clip you have just seen.

2. Did you enjoy this clip? Why?

If there was more than one animal in the clip, please answer these questions:

3. What is the relationship between the animals? (Please draw a X on the line.)

Very
friendly

Very
hostile

4. How would you describe the animals?

5. Which animal did you feel most connected to?

6. How connected did you feel to this animal? (Please draw a X on the line.)

Very
connected

Very
distant

If there was only one animal in the clip,
please answer these questions:

3. How would you describe the animal?

4. How connected did you feel to this animal? (Please draw a X on the line.)

Very
connected

Very
distant

5. ✘

6. ✘

Sex:

Female

Male

Age:

18-25

26-30

31-40

41-50

51 >

Highest educational level achieved:

Postgraduate

Undergraduate

Secondary school

Primary school

If you are currently a student at university, what are you studying?

APPENDIX V: FILM EQUIPMENT INVENTORY FOR 'ZOO QUEST TO MADAGASCAR' TV SERIES.

David Attenborough, N.308 Television Film Studios, Ealing

EQUIPMENT FOR "ZOO QUEST TO MADAGASCAR"

Film Operations Manager

Mr. Stuart Crombie, T.O.Tel., A (A) Films, Mr. Geoffrey Mulligan.

28th July 1960

Arrangements are now being completed for this expedition and we leaving during the first week of September. Would it be possible having equipment to be made available for this trip?

RIAS

- 1 - 16 mm Arriflex with sync pulse device
Full complement of lenses including zoom, 12" and 24" with cradle.
- 2 - Sync motors
- 1 - Wild motor
- 3 - 400 ft. magazine plus 2 magazine motors
- 6 - Arriflex batteries and 4 camera cables and 2 battery boxes.
- 1 - Battery charger
- 1 - Arriflex 35 mm stand
- 1 - Miller tripod with Miller head
Telescopic sighting device for long focus lens.
- 1 - Soft blimp for Arriflex

- 1 - 16 mm Bolex with full suite of lenses up to 6"
- 1 - Bolex Electric motor and battery box

- 1 - SBI Meter

RECORDER

- 1 - Transistorized L.2 for use with sync Arriflex plus a accessories, cables and microphone.
- 1 - 4017 microphone with appropriate transformer.
- 1 - Parabolic reflector
- 1 - Very long lead for use with reflector
- 1 - Chestpod

FILM STOCK

- 50 - 400 ft. rolls FP3
- 50 - 100 ft. rolls FP3
- 10 - 400 ft. rolls TriX
- 30 - 100 ft. rolls TriX

OTHER EQUIPMENT

- 50 Polythene bags, heavy duty
- 12 Silica Gel
- Laseproof tape.

Day