CULTURAL REPRESENTATIONS OF PROBLEM ANIMALS IN NATIONAL GEOGRAPHIC

HE MULTILAYERED MEANINGS of animals are tethered to the historicallyspecific norms and values of the society in which they occur, and it is widely acknowledged that the shaping of the social world is accomplished in large part by cultural representations - those depictions, illustrations, likenesses, icons, and pictures that are produced by a culture [Kalof 2007]. Most research on animal representations is framed by the assumption that animal images convey human ways of thinking about the intersection of nature and culture, ideas always grounded in specific historical and cultural experiences. Among the wide range of cultural representations that circulate in Western culture, it is commonly accepted that the print and electronic media play a particularly critical role in how animals are socially constructed as problematic.

Background

Numerous scholars have studied contemporary media representations to identify thematic portrayals of animals and of human-animal relationships, and most have found that the problem (or nuisance) animal emerges as one of several dominant themes of animal representation. For example, a study of comic strips with human-companion animal portrayals found a theme of nuisance or stressful aspects of companion animal ownership (such as property destruction or barking) [Carmack 1997]. A study of British television examined the different portrayals of animals in children's programs and found that wild animals were usually portrayed as "bad" (although they were also more likely to be main characters) [Paul 1996].¹ Another study of televised animal representations found that in prime-time television animals were portrayed much more often as villains, nuisances, and threats than were humans; this study documented a substantial amount of television time devoted to the depiction of violence by and against animals [Church 1996]. Finally, a study of the dominant messages about animals in a random sample of television commercials during the late 1990s found that one of the dominant themes was animals as nuisance, such as bugs bothering humans both indoors and outdoors, groundhogs disturbing suburban lawns, and house pets causing allergy attacks [Lerner and Kalof 1999].² Film and television have also

^{1.} It is interesting to note that they also found that when animal suffering was portrayed, it was generally only condemned when a mammal was suffering; otherwise the suffering went without comment or judgment.

^{2.} It is important to note that many of the portrayals had multiple themes, indicating the varied, multilayered messages about animals in the visual culture and the different value and use categories that humans assign to them.

been popular sites for research on animal representations in the popular media. In a study of companion animal films, one of the major themes that emerged was wild animals portrayed as dangerous and harmful and representing nature outside human control.³

Problem animals in nature/culture debates has also been an important area of scholarly inquiry. In a study of pest pigeons in urban areas, C. Jerolmack argued that the construction of problem animals relies on a perspective promoted in the media that a specific animal represents a threat to the "ideal" social and cultural space, places where nature is subdued and under human control [2008]. For example, he found that, over a 155 year period, the New York Times constructed pigeons as filthy nuisances. In the extensive and repetitive representations of pigeons as vermin (even referring to them as rats with wings), the New York Times exacerbated public anxieties about a possible connection between the birds and public health.

Finally, any discussion of worrisome animals must include the pit bull dog, who is perhaps the most notorious problem animal in the United States today. While specific dog breeds have emerged as dangerous in every decade since the 1950s (in the 1960s the German shepherd was the "bad dog du jour" and in the 1970s, it was the Doberman Pinscher), since the 1980s it has been the pit bull [Armstrong, Tomasello and Hunter 2001]. It is now widely argued that:

> [So-called vicious or bully dog breeds] have been stereotyped, scrutinized, mystified and rigorously publicized in the newspapers and media [...] Myths about

them spread through the media and caused much of the general public to believe these fallacies as fact.⁴

The role of the media in creating this aversion to pit bull dogs is indisputable. For example, in a review of news stories about pit bull dogs, J. Cohen and J. Richardson found that:

> The media have portrayed the pit bull as the archetype of canine evil, predators of the defenseless [...] unpredictable companions that kill and maim without discretion [2002: 285].

The media not only commonly presents pit bulls as demonic, savage and unpredictable toward humans, but they also depict the dog breed as "an abomination or disturbance in the natural order." [Twining, Arluk and Patronek 2000: 26]

Whether considered in urban, rural or natural areas, problem animals are those that disturb the "proper" boundary between culture and nature. Indeed, a common theme in the social construction of the problem animal is whether or not the species is useful to humans and/or believed to be destructive to human property, such as foxes, rats, seagulls, geese, deer, raccoons and rabbits [Jerolmack 2008]. Some of the most disparaged animals in Western history have been wild predators, such as wolves, foxes, and coyotes, who prey

^{3.} See E.C. Hirschman and R.S. Clinton [1997]. This study categorized attitudes toward animals as polar opposites, i.e., wild animals as dangerous or friendly.

^{4.} See K.K. Collins: "Does Negative Media Cause Societies Dislike of Pit Bulls", on http://Clearinghouse. Missouriwestern.Edu/Manuscripts/835.Php. See also M. Iliopoulou and L. Kalof [2010].

on farm animals and wild ungulates who are considered by humans to be a valuable hunting resource.

In the first half of the 20th century, the disdain for predators was so widespread in the United States that even animal advocates and nature writers derided specific species of animals as problems. For example, Ernest Thompson Seton claimed that wolves were ravenous, dangerous outlaws; William Hornaday wrote that the best falcon was a stuffed falcon, owls were robbers and murders, and wolves were cunning, cruel and cowardly; and in the 1920s the conservationist Aldo Leopold argued for the total elimination of large predators from New Mexico [Dunlap 1983].

The wholesale elimination of problem animals in the natural world, such as the mass slaughter of coyotes, often has a devastating effect on local ecologies, producing in some cases even more problem animals. For example, in 1927, millions of mice roamed unchecked in Kern County, California, because their natural predators (the local coyotes, hawks and owls) had all been killed by the Bureau of Biological Survey and farmers. It wasn't until the 1950s that both public and scientific opinion began to challenge the predator eradication policy *[ibid.]*.

Finally, nowhere has the story of the boundaries between culture and nature (and the worrisome animals that inhabit and pollute those boundaries) been told in more detail and with more photographic embellishments than in the pages of *National Geographic* magazine. *National Geographic* is considered "the professor of nature" with an influence over nature photography and natural history that

has dominated the world of popular science since 1888 and serves as the gold standard for the representation of the natural world. Given the importance of the cultural construction of animals and nature, it is clear that a comprehensive study of *National Geographic*'s representation of problem animals is long overdue. Research on animal representations in popular science media is particularly relevant in the effort to situate historical constructions of animals in their cultural frameworks and to use those constructions to better understand contemporary animal representations [Brennen and Hardt 1999].

Method

Our project was a qualitative analysis of a random sample of animal photographs (including the captions and accompanying narratives surrounding the published photographs) published in National Geographic between 1900 and 2000. The photographs were archived on a rare CD collection of full issues of every issue of National Geographic published over the 20th century. One issue per year was randomly selected for inclusion in the study, and every photograph of an animal in each randomly selected issue was included in the sample. If a selected issue did not have a picture of an animal it was not included in the sample. The total sample of animal photographs for the years 1900-2000 was 2,146.⁵ Those photographs, including the captions and full

^{5.} Ten percent of the original animal photographs were duplicate pictures, and thus were eliminated from the analysis.

feature articles, were secondarily archived with Endnote software using the Artwork function, so that the images and accompanying narratives were easily viewed on a computer.

We then examined the animal photographs, including the accompanying narratives (captions and text on the page surrounding the photographs) to identify all instances of representing animals as problems over the 100 year period. We included as problem animals all references to animals in derogatory ways, such as describing animals with words and phrases like "savage beasts, pirates, threatening, parasitic, remorseless, destructive, retrobates, joyful in worrying others, without pity, noisy, incorrigible." Our final sample consisted of 152 instances of representing animals as problems published in National Geographic between 1900 and 2000. Since the unit of analysis was each occurrence of representing animals as problems in captioning or in the text surrounding the photographs, it was possible that one story (of giant squids or locusts, for example), was illustrated with multiple photographs, each with different captions and with different narrative embellishments on the specific species of animal as a problem. While some of the representations could reasonably fall into one or more thematic categories, there was always a major or primary theme that was used for coding. Thus our thematic categories are mutually exclusive.

Results

Three major themes emerged from the data: 1) Animals as dangerous and disruptive to humans and their property (35.6%); 2) Humans as dangerous and disruptive to the natural world (34.9%); and 3) Animals as dangerous and disruptive to the natural world (29.6%).

ANIMALS AS DANGEROUS AND DISRUPTIVE TO HUMANS AND THEIR PROPERTY

The theme of "Animals as dangerous and disruptive to humans and their property" was the primary theme found in the representation of problem animals in the magazine over the 20th century. There was a clear emphasis in the approaches taken in its representation, highlighting arduous confrontations among animals. Very few of the references to animals as dangerous to humans appear prior to the 1940s, and this is consistent with the overall tone observed in many of the stories during the period, where the fascination with the natural world – and the implicit role of the magazine to draw audiences into this world are apparent. While vivid descriptions of the explorers' experiences are present, and the potential for danger in that close encounter with the "wild" is alluded to as part of the thrill, truly bothersome images of danger are not at all prevalent and such references as "destructive wild animals" who may attack the crew's belongings seem purposefully vague.

Beginning in the 1940s, however, the specificity of danger emerges from much more detailed descriptions of the animals' bodies and their potential to hurt humans and other animals. Readers are taken into a world of fish with spikes, "strong jaws and sharp teeth, capable of snapping flesh from an unwary hand," (1941) and giant squids that are "a nightmare from the deep," with "its ghastly eye stares, its round, rubbery body sags below, and its horrid arms dangle" (1941). We also read about strong turtles that put up a fight even against strong men (1943), bears that can claw and bite when suggested separation from them is not observed by tourists (1949), Spanish bulls that corner spectators in the streets on fiesta days (1954), big jellyfish whose tentacles carry "deadly stings" (1955), "vicious pyrrhania" with a close-up of a jarred, toothed mouth, to whom a man lost part of his foot (1958) and even buffalos, whose description conjures mythical creatures imbibed with the forces of nature: "Breath smoking from their nostrils, buffalo move through rump-deep snow. Terrifying must have been the sight for hunters caught in a stampede." "Like a cyclone in its fury," wrote Jones. "Irresistible as an avalanche," said another, "fortunate enough to have survived the onslaught" (1958).

While such vivid description highlights the potential danger as well as continues an implicit fascination with the "wild" encounter, for the next four decades there seems to be a striking absence of references to animals as dangerous to humans (with the exception of a few brief mentions of sharks and the hippopotamus as one who injures and kills more humans than any other animal in Africa). It is not until the mid-1990s that the theme reemerges, but this time with a surprise variation - the animal is not potentially dangerous through what the animal body can violently do at impact, but indirectly, through its potential to act as "a carrier" of danger by hosting and transmitting dangerous viruses. Pigs, rats, monkeys, mosquitoes and raccoons are all explicitly linked to this kind of danger, with references to "potentially fatal fever," "viruses that devastate humans hard to control," and "lethal pandemics."

Invasive animals emerge mostly in the form of references to pests – cockroaches, mice, mosquitoes, squirrels and barnacles. These references appear, at almost even intervals, about once a decade. While pest descriptions are consistent with what one might anticipate as typical representations, with descriptors such as "hordes," "parasitic" and "plague," an interesting subtext becomes apparent in the second half of the century. In a 1981 story on cockroaches, despite allusions to their getting "out of control" in unsanitary conditions, the readers are also reminded:

With meticulous grooming, an American cockroach combs sensitive hairs covering its waterproof body [...] The emphatic "ugh" that a roach usually evokes fails to pay tribute to its elegant design and remarkable capacity for survival.

In this sense, a reverence is maintained towards the intricacy of their creation and resilience – this kind of approach to the majesty of nature has become increasingly common in the second half of the 20th century representations of invasive animals, while its foreshadowing has been present from the beginning of the 1900s. A tension with humans is highlighted, reminding us that humans are also intrusive and dangerous:

Though small rodents and birds prey on roaches, man remains their biggest – and most exasperated – foe.

This representation of animals encompasses not only references to peaceful encounters

between the natural and the urban, but also an insistence on animals who, having once been on the brim of extinction, have been protected to the point that their numbers become problems to the urban area inhabitants. On many occasions National Geographic has demonstrated a fascination with the contrasts between the "old" and the "new," the "historic" and the "modern," the "natural" and the "developed." Although we did not consider a simple contrast as part of our sample as "problem" animals in urban environments, several instances of giraffes or horses photographed against the looming skyline of a major city in South Africa or North America are indicative of these predilections and set the stage for the instances that were relevant to our study. Several of these are simply sheep disrupting car traffic, while another covers the story of a grizzly bear who, after having killed a few dogs near a gas station, found his own death from several of the men in the area.

Most representations of animals as disruptive to urban environments are found in the 1990s, with an emphasis on several species - "ravenous" deer with "voracious appetites" that enter people's yards and feast on their plants, Canadian geese on a golf course in Connecticut, black bears, alligators, and turkeys that are "edging closer to civilization" as "the line between wilderness and civilization continues to blur." The remarkable aspect about these representations is the attempt towards a balanced view of the situation - contrary to what one may expect from a story on intruder animals called "Bittersweet Success" (referring to the animals' redemption from extinction and subsequent overpopulation into urban areas), the coverage not only shows the way people are inconvenienced or endangered by these intrusive animals, but also the reverse of the narrative. A wildlife officer mused:

> People complain that alligators have moved into their backyards when the opposite is true.

In fact, the tone of the alternative viewpoints suggests once again an allegiance to the conservation attempts highlighted by the theme of humans as invasive:

> In characterizing wild animals as pests, we do an injustice to their tenacity, intelligence and adaptability. Wildlifemanagement terms – "the resource," "the harvest" – dull our appreciation of these superb creatures and skew our vision of their place in the world (1992).

HUMANS AS DANGEROUS AND DISRUPTIVE TO THE NATURAL WORLD

This predominant theme that surprisingly comprises over a third of the entire sample (34.9%) begins early in the collection, with 1908 being the first mention of human activities that are detrimental to the natural world. specifically the development of animals and their offspring. These instances are sparse in the first half of the century, occurring about ten years apart until the late 1940s and mainly referring to previous or contemporary hunting of birds and animals that have considerably decreased their numbers, as well as the first mentions of "increasing civilization" intruding into their spaces and subsequent necessary protection laws (first mentioned in 1939). Nevertheless, this awareness of humans' potentially harmful role in the natural world

is not only captured early in the 20th century but also begins to counter preconceived ideas of the "wild," foreshadowing what our data indicate to be one of the most persistent themes throughout the next nine decades: humans as the most problematic animal on earth. For example, here is one passage from an early article that derides the humanocentric notion of mastery over nature:

> Tales of savage beasts largely emanate from two classes, the commercial nature faker and the novice [...] many of these (latter class) are wholly unacquainted with wild animal life and very often possess a vivid imagination, built up partly upon fear and partly upon a desire to report startling tales equal to the best that appear in the local press. True it is that the grizzly bear, badly wounded or defending its young, may occasionally show fight, but the old day, when this powerful animal voluntarily stood its ground, is gone forever. At least in every district where the repeating rifle has taught the lesson of man's overpowering mastery, and today not a single experienced sportsman, naturalist, guide, or any reliable trapper will relate or underwrite any of these tales of perilous adventures with the wild and harassed animals of the American forests (June 1908, p. 420).

The idea of harassment, or at least mild intrusion into animal territory is often portrayed in the 1950s and 1960s, continuing a theme established early on in the life of the magazine – word choices seem to reveal a fascination with the "natural state" of the animal, with explorers, scientists and even photojournalists seeking close encounters and presenting detailed accounts about the experience and feelings associated with it. Conversely, the animals are described, often in anthropomorphized adjectives, as "reserved" and "suspicious" – deer flee the noise of the photographer's helicopter, or in describing a sea lion cub: "Soulful eyes appear to reproach the photographer for his intrusion." In fact, variations of the word "intrusion" is a favorite in these descriptions, pointing to the mild manifestations of a range of human intervention in natural habitats.

Mild intrusion and disruption move across the spectrum towards a predominance of destructive practices in the second half of the 20th century, a time period that, in fact, contains the vast majority of these representations for the entire one hundred-year interval. This considerable increase parallels, on the one hand, the rise in technological development and the implicit exponential growth in the human ability to negatively impact the environment, and on the other hand, the heightened levels of awareness about the human impact on natural habitats coupled with efforts to stop and reverse some of those ill-effects. In this context, beginning with the 1970s, the predominant theme of humans as disruptive and dangerous becomes apparent through recurrent references to human advancement at the expense of natural habitats and vivid imagery of hunting, skinning and gutting animals (even if used for nourishment, such as the case of the Eskimo practices), hunting for leisure in the African natural parks or illegal poaching for animal body parts among the elephants and the rhinoceros.

The choice of images and words aim for a startling effect on the reader, as in the 1990

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image of an American hunter in Botswana,
photographed with his zebra trophy, already
skinned, his red flesh exposed and skin piled
nearby. Interestingly, the image is in fact used
as an example of an attempt at conservation,
as such hunter clients were required to be
accompanied by licensed hunters who could
only hunt according to a quota system.
Although with a similar visual effect, such an
image of conservation is set in contrast with
the ravaging effects of illegal hunting and
poaching for highly-prized animal parts on
black markets:

Tons of meat lie rotting on the plains – elephants stripped of their ivory, trunks hacked off. Efficient waste is the trademark of highly mobile poachers with automatic rifles – a proliferating species (1986).

This is only two years after the magazine ran a lengthy story entitled "They're Killing Off the Rhino," where the animal is called a "symbol of extinction" and images of armed guards in national parks are juxtaposed with photos of rotting carcasses of hornless rhinoceros.

In a similar vein, descriptions and images of destruction – along with conservation efforts – continue into the 1990s, and span continents: too much hunting has dwindled the numbers of crocodiles and hippopotamus in the Okavango Delta, while the New Zealand giant weta are likened to China's panda bears and offer the country something "different" yet in need protection as human development and other recently introduced predators endanger them; crabs, birds, and plant life caught in oily tides on the Saudi Arabian coast were turned into "instant fossils," while in North

America fisheries and wild life law enforcement confiscate and accumulate numerous illicit trophies of animal body parts whose commerce violates the Endangered Species Act. The caption emphasizes:

> Many such laws exist throughout the world but the slaughter will stop only when all governments muster the will to enforce them.

The tone of this mid-1990s caption is indeed emblematic of the conservation efforts highlighted by *National Geographic* and their awareness-raising about the range of human interventions in the natural world with often deadly consequences.

Animals as Dangerous and Disruptive to the Natural World

This thematic category occurred in 29.6% of the sample. As anyone familiar with print and film media animal representations might attest, there is often a fascination with the tooth-andclaw combats among animals and indeed many instances in this second thematic category refer to such encounters. Early in the 20th century, readers learn some birds are "pirates" or others, despite their beauty, act as "savage and remorseless destroyers of the eggs and young of other birds" (1911). In the next decade, they meet a mutton fish bitten in two by a "hungry barracuda" (1922) and learn that the killer whale, "the wolf of the sea," is a "scourge of the oceans [...] feared by all living fish" (1922). The ferocious fights to live appear appealing to audiences and are highlighted through an emphasis on such survival acts as fish violently pushing each other from sources

of food or young female eagles, "greedier, stronger sisters," killing some of their brothers in infancy. ⁶ Of course, there were references to the infamous "vermin" of the early 20th century, particularly the wolf as "an animal that now threatens [the deer] with extinction" (1907), which was the caption for a photograph of an unfortunate timber wolf who was caught trapped on a deer runway.

While verbal representations of temperamental animals and their confrontations predominate in the first half of the century, the last three decades witness vivid imagery that complements powerful choices of words verging on the sensational - felines are carriers of "death on cat's paws," to baby giraffes, African wild dogs are "matted in blood" from devouring an impala kill, and "poisonous flesh doesn't stop Greenland sharks from cannibalizing each other [...] One was devoured up to its head" (1998). The double impact of verbal and photographic representations can be assumed to enhance the effect on the audience and it is made possible, towards the end of the century, by the drastic comparative improvements in the photographic technology - the detail of the combat in action and its consequences are captured with striking detail, in comparison to the black and white images that dominate the first decades and appear static in comparison.

A second sub-theme reveals a complex portrayal of animals as dangerous to natural spaces and at times even their own habitats and thus themselves. Locusts' flight darken the sky, their excretions falling thick on the ground, while they destroy living plants in their path: They had no pity [on palm leaves], gnawing off the tenderer ends (1915).

While the sea urchins ravage their own habitat of giant kelp, they may end up endangering themselves, and the idea of selfendangerment is made more explicit in instances where animals become taxing on their environments through their numbers and activities. For example, in the case of elk at Yellowstone National Park, the absence of natural enemies leads to an increase in number in the late 1960s. However:

To maintain proper balance with [other animals], rangers must occasionally reduce the elk herd so that lack of food does not endanger all (1967).

Similarly, twenty years later, the approach has not changed, as in a different national park, on a different continent, managers of wildlife need to "cull the herd" of elephants so that the habitat can sustain it. From a slightly different angle, we find the tension of the natural and the cultural in animals' "self-endangerment" in the description of species who, having been raised in captivity, cannot function properly by themselves. Orangutans that were once pets when young, are clumsy in climbing a tree and, in falling, one breaks an arm and needs medical attention.

It is thus the prevalence of the human rescuer that weaves in as a third sub-theme, intricately connected with the second, animals

^{6.} References to gender, although beyond the focus of this paper, are another interesting facet in the cultural representations of problem animals, with both male and female representations and associations with stereotypical or problematic behaviors.

as dangerous to themselves. Once animals become dangerous to their environments and eventually to the survival of their own species, human intervention for their rescue becomes a prominent narrative. Human rescue is called for in natural disasters such as floods amid which animals get swept away, as well as the ironic instances in which animals need rescue from the negative and endangering circumstances brought upon the animals by humans themselves. Startling black and white images of a cow hanging in a tree or dogs stranded on roofs during a flood are accompanied by telling captions, referring to dogs, cattle, pigs, horses and mules as "dumb creatures that intelligent man, with boats, has taken from the floods" (1937). Then, an aspect that emerges, in fact, from the first predominant theme of the study – humans as dangerous to the natural world – highlights the perpetrator as subsequent rescuer:

> An orphaned black-faced spider monkey was raised as a pet by the logger who killed and ate its mother (1999).

It is in such intersections of roles and their representations that the complexity of this analysis becomes even clearer, defying simplistic categorizations and thus allowing for a richer, albeit more complicated, interpretation.

Discussion

Humans have always been fascinated by the spectacles of nature, and from the earliest times of our history we have been drawn to animal spectacles that highlight their violent and aggressive behavior as "animal nature." [Kalof and Fitzgerald eds. 2007: 193] Indeed, some of the most popular contemporary spectacles of nature are not in the pages of magazines, but in live performances that pit humans against wild, aggressive animals, as in bullfighting, or that pit animals against other animals as in dogfighting or cockfighting. Bullfighting is a well-studied case of the struggle between nature and culture. In the bullfight, the human gradually wears down (domesticates) the wild animal, forcing the bull to lose his willful aggressiveness in a performance that most often ends with the taming (death) of the bull by the civilized human matador [Marvin 1994]. In the defeat of the barbaric and uncontrollable by the civilized and controlled, humans maintain a dominance over and a separation from nature. In the 1990s, the "Animals as dangerous to humans" had an interesting twist in the depiction of animals as problems in their ability to act as carriers of viruses dangerous to humans. The renewed and significantly narrowed focus on animals as carriers of less evident - yet an even more menacing and daunting danger seems to reflect concerns in recent years with the increased variation in viruses and the ease with which these can be transmitted across the world.

Cultural representations in *National Geographic*, therefore, function as both mirrors and shapers of public opinion. Popular media is well known for its focus on animals as threats to human health: swine flu, avian flu, mad cow disease, and contemporary microbes such as H1N1 – all of which portray animals as dangerous to humans. But, as R. Malamud reminds us, the real problem is people who grind up animals to feed to other animals or tramp from farm to farm in China to deliver a vaccination against avian flu and in the process actually increase the risk of spreading the disease instead of controlling it [2007]. Indeed, invasive animals were primarily pests that emerge in unsanitary conditions. According to one scholar, this emergence is a process of mobility in which humans and animals invade each other's space, uninvited and unwanted:

> Destructive movements of animals in "our space" enables us to tell when our fellow human beings descend into mobilities resembling "the animal." Here we refer not to the cuddly animal seen as "pets" but the beast, the serpent, the bird and animal of prey whose presence bodes ill for our property or us, against which weapons designed for pests - any kinds of pests - must be deployed. The process of "becoming-animal," where "all forms come undone," is a dialogue between two opposites - what we see as the best in us (our humanity) and the worst in other living species (their animality) [cited in Mavhunga 2011: 10].

Cities and urban areas have historically been seen as human spaces "naturalized as just another part of the ecosystem [...] (where) in our apparent mastery of urban nature, we are seemingly protected from all nature's dangers." [Wolch 1998: 123] However, the alternative viewpoint on disruptive animals in urban environments suggests yet again an allegiance to conservation highlighted in the theme of humans as dangerous to the natural world. In the case of pest animals in urban areas, conservation could indeed embrace a "renaturalization" of cities, bringing animals into urban areas where they are largely absent and integrating people with animals and nature – a zoöpolis [*ibid.*: 124].

"Humans as disruptive and dangerous to nature" was a prominent National Geographic narrative after 1950. This focus on how humans have exploited and endangered the natural world is not only consistent with the rise in technological development during the second half of the 20th century, but also highlights the advertised goal of National Geographic - to work toward environmental conservation. But more importantly, the notion that there is a pristine Nature (with a capital N) that is under threat from human intervention is an "after-Eden" story. After-Eden stories lament the loss of a "perfect Nature" because of human actions that have degraded the natural world, a narrative that emphasizes a "nostalgia for a perfect past or deep fears about continuing loss." [Slater 1996: 116] Edenic narratives also frame stories of the humananimal relationship in Nature. For example, D.W. Curtin notes that the tale of Tarzan reconfigures the human-nature relationship into one in which "polluted" humans despoil the Garden of Eden (the local watering hole), forcing Tarzan to reluctantly abandon his Edenic home and lead his thirsty animal friends to a place not yet polluted by humans [2005].7

^{7.} It is interesting to note that the same pollution of Nature occurs in the Gilgamesh epic in which the wild beast-man Enkidu is no longer recognized by his animal companions after his seduction into culture and civilization by the prostitute Shamhat.

"Animals as dangerous and disruptive to the natural world" upholds the stereotyped depiction of nature as "red in tooth and claw" and corroborates S. Montgomery's argument that National Geographic's animal imagery is centered [in part] on "nature as the abode of death." [1993: 31] He argues that the aesthetic that occurs most commonly in the pages of the magazine is one that continually invokes death so that it can be made beautiful in a lush, scenic landscape. Nature according to National Geographic is bound by the law of survival and instinct which is "overbrimming with destruction, animals slobbering and dying in the last dregs of mud [...] Death, in fact, is harmony here; death is law and the law is beautiful, an inspiring subject." [Ibid.: 30] Indeed, some experimental research in media psychology has found that photographs of victimization in news reports increased both reading time and comprehension of textual information [Zillmann, Knobloch and Yu 20011.

The magazine's depictions of the wolf and coyote show the changing cultural representation of problem animals with the development of biological conservation and ecological narratives over the 20th century. In our random sample of photographs we were able to trace the unfolding of the perception of the wolf from a problem animal in the early 20th century to a critical link in the web of life in the late 20th century. Specifically, a 1907 photograph celebrated the entrapment of a timber wolf who threatened the local deer with extinction. By the 1960s the magazine was representing worrisome predators such as the wolf and coyote as part of the web of life, such as the 1967 photograph of a coyote with a caption noting that he is a "wary scavenger" who usually dines on small rodents, helping rid the local natural area of carrion. By 1985 the inherent value of wolves was a feature story on the ecological balance between wolves and moose on northern Michigan's Isle Royale, and in 1988 the magazine published a story on how a few adventurous humans spent "intimate weeks" with a pack of arctic wolves on Ellesmere Island.

National Geographic's representations of wolves and coyote over the 20th century chronicle the animals' shifting status in different scientific, political and cultural contexts in the United States. The transition from exterminating wolves and other varmints at the beginning of the 20th century to reintroducing them back into the "web of life" at the end of the 20th century has been detailed by T. Dunlap [1988]. Between 1880 and 1910 the institutional and intellectual foundations for wildlife policy were established, creating agencies, programs and legislation that allowed government to protect wildlife. There was also a change in the science of biology, and by the 1920s principles of ecology were being applied to wildlife, with public interest in "vermin" stimulated by popular presentations of scientific research. The Bureau of Biological Survey's program of poisoning predators came under attack in the 1920s, indicating a fundamental change in the value of wildlife among the public and some scientists - saving varmints (the wolf, coyote and bobcat) began to be seen as important as saving buffalo and birds,

those animals who were part of America's heritage or who were aesthetically pleasing *[ibid.:* 48]. In the 1930s, nature education flourished but the public also wanted "outdoor zoos" and a Senate special committee on wild-life promoted both ecological research on the natural balance of predators and prey and support of "the daily 'grizzly's' banquet" which was watched by 106,615 persons visiting the Grand Canyon in 1939 *[ibid.:* 81].

By the end of World War II the foundations for an active wildlife preservation program was solidly in place and the principles of animal ecology began to spread from the scientists to the public, reshaping nature narratives and public perceptions of nature and wildlife. Between 1945 and 1968 the public's view of nature shifted; nature was no longer seen as an unlimited resource but rather a complex, fragile web in which animals were integral and easily destroyed by uncontrolled industrial development. The poisoning of predators continued, however, but there was growing opposition among the public. The introduction of Compound 1080 by the Fish and Wildlife Service after World War II (and the use of strychnine and cyanide) outraged scientists and the public - the frenzy to slaughter wolves by poisoning not only killed wolves but also dogs, children and the horses who ate the grass that the wolves had salivated on as they died [Wolch and Emel 1998: 98]. In 1972, poisoning for predator control was banned by federal law. The new appreciation of the value of ecosystems fueled numerous animal protection initiatives. Americans wanted to save all animals - the endangered species acts were passed in 1966, 1969 and 1973; an act to protect whales, seals and other marine mammals was passed in 1972; and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was signed in 1973 [Dunlap 1988: 142].

But political pressure by ranchers revived the predator poisoning program. Ronald Reagan (whose major base of support was the West) dismissed the idea that we were destroying nature and ecosystems, and in 1982 James Watt, the Secretary of the Interior, reversed the humane control mechanisms that had been put in place, reinstating predator extermination with poisoning, bait stations and denning. However, recent recognition of the critical role of predators in the food chain has resulted in the reintroduction of the wolf in many wilderness areas in the United States, and in 2007 scientists claimed that the wolf is back in the Northwest. But the pendulum swings again. As of May 4, 2009, the Gray Wolf was de-listed as an endangered species in the northern Rocky Mountains and upper Midwest, a move upheld by the Obama administration that appears to have revived the antinature policies of the Reagan era. It remains to be seen how the wolf will fare without legal protection. Scientists argue that the legal status of the wolf is crucial to the survival of the species.

Bringing the animal from nature into culture, is also problematic. The theme "Animals as dangerous to nature" once again recalls the pristine natural world that is under threat from human intervention, in this case

in the form of domesticated animals. J. Muir critiqued domesticated sheep in the Sierras, for example, referring to them as "woolly locusts" who trample leaves and flowers and blight the beauty of the Sierra wilderness [1911: 128]. Over the 20th century, domestication has often been associated with the debasement of animals who are considered "corrupt and inauthentic versions of their wild ancestors." [Cassidy 2007: 8]

In conclusion, our analysis indicates overlaps between the thematic portrayals of problem animals in National Geographic. While the themes provide important and useful parameters for our analysis, it is equally important to recognize - as we have tried to do throughout - that often the rhetoric of animal representation is, in fact, polyvocal, with several, even competing, strands. We found stories with contested narratives: stories of cockroaches that present them as pests but also emphasize them as amazing creatures, or animals as intruders in urban spaces that reminds us that in fact it was humans who intruded initially, or a representation of the platypus as both a danger to humans but also threatened by humans, or multiple stories of humans as both destroyers and liberators of the natural world – these are the juxtapositions that reveal the complex narratives of the

cultural representations of problem animals in *National Geographic*, depictions that are, after all, context-bound. It comes as no surprise that there are contested discourses of problem animals in the popular culture, just as there are multilayered discourses of concern for animals. There is a multiplicity of attitudes toward animals, some that support the notion of human domination over nature, some that oppose that traditional idea, and some that are multiple, overlapping orientations [Kalof 2000]. The cultural representation of the animal problem, then, is no exception.

It is clear that National Geographic imagery and narratives contribute to the cultural knowledge of animals and nature as noxious, alien, foreign and invasive, thus reinforcing historical fears of animal savagery and animality. On the other hand the finding that humans are animals particularly harmful to the natural world, corroborates and upholds contemporary efforts at global conservation, and indicates that these efforts have their roots early in the 20th century. This work adds to a growing literature that argues that our understandings of animals and nature are deeply embedded in their representations in the popular culture, and visual imagery has a particularly compelling role in helping to shape human values and beliefs about animals, nature and social order.

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Abstract

Linda Kalof and Ramona Fruja Amthor, Cultural Representations of Problem Animals in National Geographic The cultural representations of animals and nature are important sources of meaning-making, and nowhere are those representations more pervasive than in National Geographic magazine. We examine the representation of animals as dangerous and threatening, a notion widespread in our risk-focused society. Analysis of a random sample of animal photographs published between 1900 and 2000 documents that animals depicted as problems fall into three categories: 1) Animals as dangerous and disruptive to humans and their property (35.6%); 2) Humans as dangerous and disruptive to the natural world (34.9%); 3) Animals as dangerous and disruptive to the natural world (29.6%). We conclude that National Geographic iconography contributes to a discourse of animality as noxious and invasive, a discourse that also includes human animals as harmful to the natural world.

Keywords

animals, nature, culture, representation, National Geographic

Résumé

Linda Kalof et Ramona Fruja Amthor, *Représentations culturelles d'animaux problématiques dans* National Geographic

Les représentations des animaux et de la nature sont porteuses de sens, et nulle part ces représentations ne sont plus éloquentes que dans la revue National Geographic. Nous examinons ici les représentations d'animaux considérés comme dangereux et menaçants, une notion largement répandue dans nos sociétés, pour lesquelles le risque est une préoccupation majeure. L'analyse d'un échantillon aléatoire de photographies d'animaux dits problématiques, prises entre 1900 et 2000, permet de les classer en trois catégories : 1) les animaux dangereux et qui perturbent les hommes et leurs biens (35,6 %); 2) les humains dangereux et qui perturbent le milieu naturel (34,9 %); 3) les animaux dangereux et qui perturbent le milieu naturel (29,6 %). L'iconographie de National Geographic contribue ainsi à présenter les animaux comme nocifs et « invasifs » et à inclure, dans la catégorie des nuisibles, l'animal qu'est l'être humain.

Mots clés

animaux, nature, culture, représentations, National Geographic