

Beautiful and Ugly Animals in Kenya Maasailand: Why beauty matters for biodiver- sity conservation in Africa

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Abstract

Consideration for how humans aesthetically value biodiversity is mostly absent in conservation discourse and practice in the Global South. This contrasts with industrialized countries where this non-economic dimension of human-environmental relationships has been integrated in conservation policies. Conservation practice in sub-Saharan Africa has been dominated by notions of conflict and strategies coupling conservation with economic development. Here, I compare the role of aesthetic appreciation of biodiversity in conservation in the North and the South and scrutinize why research on aesthetic valuation of wildlife by members of African rural communities is rare. Then, based on the case of the aesthetic dimension in the relationship between Maasai and wildlife, I discuss implications for conservation in sub-Saharan Africa related to aesthetic valuation of biodiversity. Deeper engagements of anthropology with conservation science are needed to uncover how positive non-economic dimensions of human-wildlife relationships can be harnessed into the design of conservation strategies that more fully reflect and respect the perceptions and experiences of people who live with wildlife.

Introduction

Knowing how human valuation of landscapes and species influences attitudes towards species conservation is increasingly recognized as crucial for environmental conservation policy-making. For instance, understanding the economic and non-economic values that people associate with animal species is important for mitigating human-wildlife conflict (Manfredo et al., 2003, Kellert, 1985, Manfredo and Dayer, 2004, Madden, 2010) and establishing conservation priorities (Czech et al., 1998, Montgomery, 2002). Thus, in recent decades, social scientists and biologists using theories and methodologies from the social sciences have addressed social, cultural and psychological aspects of human-environmental relationships (Drury et al., 2011, Heberlein, 2012).

In the North, these research endeavors have shown that human positive aesthetic valuation of biodiversity shapes support for conserving biodiversity. In contrast, the literature is silent on the role of aesthetic appreciation of biodiversity in conservation in the Global South in general, and in sub-Saharan Africa in particular. Judging from the lack of research on aesthetic valuation of biodiversity by African land users, the possibility of its existence seems to not even be considered. This aspect is also lacking in conservation policy: predominating conservation strategies in rural Africa aim to solve conflicts between people and wild animals and/or protected areas; and using biodiversity's economic value as an incentive for pro-conservation behaviors through income-generating activities such as tourism. In general, policies have ignored non-economic dimensions of human-environmental relationships (Infield 2001). The unstated rationale seems to be that dependence on natural resources for livelihoods – a reality for many rural African households – precludes appreciation of “nature” for its “beauty”. How plausible is it, though, that rural residents do not appreciate beauty in biodiversity and lack well-defined aesthetic preferences for landscapes and species?

In this chapter, I confront this gap in conservation research and policy on the African continent, which, I contend, reflects a biased view of the relationships of African rural residents with biodiversity. Reviewing the literature, I critically examine the fact that the notion of aesthetic value of biodiversity, while debated by environmental ethicists and investigated by conservation scientists in industrialized countries, shines by its absence in the conservation literature and policies in Africa. Based on my Ph.D. research (Roque de Pinho 2009) that analyzes and characterizes the aesthetic appreciation of wildlife by Kenyan Maasai pastoralists and a recent case-study (Roque de Pinho et al., Accepted) quantifying the effects of Maasai aesthetic judgments of wild animal on attitudes towards their conservation, I challenge representations of African rural land users as devoid of aesthetic sensibilities regarding wildlife. In light of the related implications for wildlife conservation in Africa and globally, I argue that aesthetic valuation of wildlife, as a significant dimension of human-environmental coexistence, should be further investigated and integrated in conservation strategy design. However, for this to happen in more than a cursory way in-depth ethnographic involvements with communities are needed on the part of conservation scientists.

Beauty in biodiversity conservation in industrialized contexts

Environmental Aesthetics

In nature's power to invite appreciation, we may find a prime reason why our environment should matter to us and be something to 'preserve' out of motives quite different from pragmatic or utilitarian ones, such as conserving resources for future use (Cooper 1998: 100).

Human non-economic valuation of biodiversity influences attitudes towards natural resources, species and environmental problems (Czech et al., 1998, 1993, 1996, Kempton et al., 1995, Montgomery, 2002). Kellert's (1996) typology of nine human values of nature clearly defines aesthetic value of biodiversity as one important influence shaping our relationship with biodiversity. Other scholars, such as Hettinger (2005), Thompson (1995), Holmes Rolston III and Aldo Leopold (both in Hettinger 2005) have put aesthetics at the center of environmental concern. Cooper (1998) defends that, aside from utilitarian reasons, the aesthetic value of the environment should be one reason for humans to conserve it, calling the disappearance of natural landscapes and animal species "aesthetic depredations" (Cooper 1998: 100). For Thompson (1995: 304), an "aesthetic approach to the evaluation of nature does provide us with a way of arguing for the protection and preservation of some natural objects and environments." Broadly, these arguments are part of environmental aesthetics, a study field concerned with what is "beauty" in "nature" and how this knowledge can advance environmentalist goals, and related philosophical implications (Lee, 1995, Carlson, 2010). Some authors have proposed we approach biodiversity conservation as we do art (Kiestler, 1997, Cooper, 1998, Thompson, 1995). Brady (2002) puts forward the concept of aesthetic integrity as a guiding principle for policy-making. Thompson (1995) stresses the importance for environmental conservation decision-making of understanding people's aesthetic appreciation of the environment, which biases conservationists in their decisions (Kovacs et al., 2006, Eaton, 1998, Johnson, 1995). Fire suppression, an aesthetic choice, is a case in point (Eaton, 1998).

Aesthetic Preferences for Animal Species and influence of aesthetic appreciation of wildlife on conservation decision-making

In our effort to conserve biodiversity, we must better understand the biodiversity preferences of humans, who will decide what to conserve (Stokes 2007: 361).

Environmental aesthetics research has been more concerned with the beauty of landscapes (Lee, 1995, Brady, 2002) than with that of animals, which Parsons (2007) deplores. It is intuitive, however, that humans find some animals more appealing than others and that this would affect conservation. Studies in western contexts have explored two angles of this relationship and related implications: 1) how people rank animal species according to their physical attractiveness (Marešová and Frynta, 2007, Marešová et al., 2009a, Stokes, 2007, Knight, 2008) and 2) which physical characteristics explain such prefer-

ences (Gunnthorsdottir, 2001, Stokes, 2007, Ward et al., 1998, Metrick and Weitzman, 1996, Knegtering et al., 2002, Marešová et al., 2009b).

In the North, charismatic megavertebrates, (e.g., pandas, elephants, lions) are considered especially attractive, while most invertebrates are not. Colorful, mobile and diurnal species, such as mammals and birds are preferred (Kellert, 1993, 1996). Other favored physical traits include large size (Ward et al., 1998), neotenic features (Burghardt and Herzog, 1980) and similarity to humans (Kellert, 1986, Plous, 1993). Human aesthetic preferences discriminate at a very fine scale within the same taxon, as shown in snakes (Landová et al., 2012, Marešová and Frynta, 2007, Frynta et al., 2011), birds (Frynta et al., 2010, Lišková and Frynta, 2013, Stokes, 2007) and mammals (Frynta et al., 2013).

Distinct preferences for animal species based on their physical characteristics are thus pervasive across a range of taxa and have implications for public support for conservation. This association has been recognized by environmentalists, who have long relied on the power of animal attractiveness to promote conservation awareness through campaigns featuring charismatic and “cute” wild animals, e.g., adorable baby seals, friendly pandas and majestic lions. It is only recently, however, that scientists have examined how aesthetic predilections for species influence public willingness to support them. Knight (2008) showed that “cuteness” of endangered species was positively related to public support for their US governmental protection. Huddy & Gunnthorsdottir (2000) demonstrated the impact of the emotionally-based appeal of imagery of “cute” and “ugly” animals on political behavior. Their participants were likelier to feel positive about an environmental organization, agree with its goals and take action when it was protecting a cute animal rather than an ugly one. This effect was independent of the animals’ biological importance (see also Gunnthorsdottir, 2001).

These studies confirm Stokes’ (2007) argument that aesthetic appeal is a powerful motivator for biodiversity conservation among the general public. Conservation policy-makers are also biased by their personal aesthetic judgments: allocation of conservation resources has favored large “attractive” vertebrate groups (Czech et al., 1998). Metrick and Weitzman (1996) found that an animal’s size and degree to which it is perceived as a “higher form of life” play a greater role than scientific criteria (i.e., endangerment status; taxonomic uniqueness) in determining governmental conservation decisions (e.g., listing as endangered; spending). Similarly, Knegtering et al. (2002) demonstrate that these physical characteristics affect non-governmental organizations’ support for public conservation actions independently of the organizations’ interests. Snake species’ populations kept in zoos worldwide correlate with human aesthetic preferences rather than with their conservation status (Marešová and Frynta, 2007). Zoo animals’ sizes also reflect visitors’ preferences for larger species (Ward et al., 1998).

In light of these biases, Stokes (2007: 361) recommends that “conservationists be vigilant to the potential for aesthetic responses to influence conservation efforts.” As endangered species compete for limited funds (Montgomery, 2002), understanding the aesthetic values held by the public and policy-makers could help establish more equitable approaches to funding conservation research (Trimble and Van Aarde, 2010) and policies (Metrick and Weitzman,

1996, Czech et al., 1998, Frynta et al., 2010). Stokes (2007) and Kneegting et al. (2002) suggest promoting the conservation of less physically attractive but ecologically important taxa; and revealing to the public appealing qualities of poorly known species (Stokes 2007). Recent conservation outreach campaigns have highlighted the plight of “ugly animals” in need of protection (Lawson, 2013, see also Estren, 2012).

Given these potential effects of subjective aesthetic judgments of animal species, I concur with Stokes (2007) when he recommends that this influence on attitudes and behaviors be investigated and factored into conservation strategies. However, as I show next, this factoring in of the “species’ beauty effect” in conservation research and policy is missing from the conservation record in Africa.

Aesthetic appreciation of biodiversity in non-industrialized contexts

No beauty of wildlife in Africa?

Analyses of human-wildlife relationships in the Global South usually emphasize the economic and religious dimensions. For instance, Kellert (1986 : 62) asserts that in developing countries people only ascribe two types of values to wildlife: 1) an economic, material, utilitarian value; and/or 2) a mythical, religious, magical value. He cites a study by Mordi (1991, in Kellert 1996)¹ according to which wildlife in rural Botswana is perceived as possessing mostly magical and/or utilitarian significance. Mordi recommends that local biodiversity conservation policy be based on utilitarian value (i.e., through wildlife utilization, ecotourism).

Generally, conservation strategies in Africa have ignored non-economic, cultural values of biodiversity to local communities (Infield, 2001). They have also been dominated by a human-wildlife conflict (hereafter, HWC) framework that sees humans and wildlife as antagonists. Human-wildlife conflict is defined as occurring “when the needs and behavior of wildlife impact negatively on the goals of humans or when the goals of humans negatively impact the needs of wildlife”, e.g., wildlife damaging crops; injuring or killing domestic animals; threatening or killing people; and people killing wildlife (Madden, 2010: 248). Within this HWC framework, cultural and spiritual aspects of human-wildlife conflict are sometimes acknowledged, but it is done in ways that brush over the complexities of this relationship (e.g., Manfredo and Dayer, 2004).

Since the 1990’s, under the guise of community-based conservation (hereafter, CBC), conservation policies in Africa have aimed at solving HWC by reconciling conservation with economic development, for instance among communities residing around protected areas or whose livelihoods are affected by conservation policies (e.g., through losing access to land and resources). Resolving conflicts between local residents and wildlife or between them and conservation goals and enlisting their support for conservation has commonly involved economic compensation of economic losses and education about the

1 Mordi, R. 1991. Attitudes towards Wildlife in Botswana. New York: Garland.

economic value of biodiversity, for example through tourism and wildlife utilization (Galvin et al., 2006). Thus, by conceptualizing biodiversity as (actual and potential) source of income to rural residents, this approach to conservation embodies the assumption that economic rationalism defines the relationships of African rural land users with non-human animals (Stern, 2008). The associated narrative depicts them as valuing wildlife as meat or providers of tourism dollars.

While the material importance of natural resources to African rural livelihoods is undeniable, I would argue that the predominance of economic arguments in conservation policies reflects a biased view of African land users as unable to relate to the environment in non-utilitarian ways because of their resource-dependent livelihoods. A few studies highlighting non-economic dimensions of human-environmental relationships support my contention. There are non-utilitarian values attached to Tanzanian protected areas by neighboring residents, such as protection of wildlife for future generations (Newmark et al., 1993) and pleasure of “see[ing] and know[ing] different animals” (Kangwana and Ole Mako, 1998: 18). Knight et al. (2000) stress the strong symbolic dimension of HWC, highlighting how the phenomenon is not best explained through an economic cost-benefit analysis lens. Barrett & Arcese (1995) and Gibson & Marks (1995) also claim that conservation planners have left important non-economic dimensions of people-wildlife relationships out of the design of conservation projects. Since local values of wildlife can be at odds with the Western preferences and priorities that guide conservation interventions in rural communities, Infield (2001), Gadd (2005) and Kuriyan (2002) argue for the inclusion of non-utilitarian, cultural values of wildlife in conservation strategies to make these more locally acceptable.

Studies of human attitudes towards species, conservation programs or protected areas typify the search for solutions - mostly economic - to improve interactions between local populations and conservation goals and attempts to determine the success of CBC projects in changing local attitudes and behaviors towards conservation (Kangwana and Ole Mako, 1998, Newmark et al., 1993). With regards to East Africa, my region of interest, most research has been survey-based (Browne-Núñez and Jonker, 2008), focusing on the local demographic and socioeconomic variables driving attitudes towards wildlife, i.e., respondents’ gender and formal education (Kaltenborn et al., 2006a), land use (Okello, 2005), religion (Hazzah et al., 2009) and wildlife-conservation economic benefits in households (Gadd, 2005, Groom and Harris, 2008). Others have focused on the political economic variables influencing those relationships (Goldman et al., 2013).

Amidst the limited research on the non-economic dimensions of human-wildlife relationships in African rural areas, how aesthetics mediates these has been especially overlooked. Mordi (1991, in Kellert, 1996) suggests that aesthetically appreciating wildlife among Botswana citizens is somehow related to urbanization and the adoption of Western values. This seems to imply that aesthetic enjoyment of nature is the prerogative of citizens of industrialized contexts while rural Africans lack that sensitivity; that Westerners can afford the luxury of enjoying landscapes for their recreational benefits and looking at wild animals without seeing food but resource-dependent rural residents in non-industrialized cannot. Ranger (2000), for one, strongly argues against the

dominant view that rural Africans, before colonization, lacked aesthetic preferences for their landscapes. In the biological conservation literature, a few studies have touched upon the aesthetic dimension of human-environmental relationships, although indirectly. Hill (1998) found an aesthetic basis to attitudes towards elephants in Uganda: “Elephants are good to be seen”, “they’re God’s beauty” and “it makes us happy to see them” were listed as reasons to conserve them. Gadd (2005) found that, after tourism benefits, pleasure to see elephants was the second most important benefit for members of northern Kenya’s pastoralist communities. Gillingham and Lee (1999) found wildlife’s aesthetic value to be a benefit that residents around the Selous Game reserve (Tanzania) appreciated (after economic benefits). Communities around protected areas in Tanzania and Ghana want wild animals around for aesthetic enjoyment and cultural reasons (Robinson et al., 2012). These few studies suggest that aesthetic appreciation of animals could be a relevant dimension of human-wildlife coexistence in Africa, just as it is elsewhere. Moreover, aesthetic value partly underlies the widely adopted flagship species-based conservation strategies (Entwistle, 2000). In developing countries, this approach is more successful if the flagship species reflect values and preferences held by the communities targeted by conservation initiatives, in addition to aesthetically appealing to Western donors (Bowen-Jones and Entwistle, 2002). These locally specific aesthetic preferences for species should thus be uncovered.

No study among human communities residing around African protected areas, however, has investigated in-depth whether wild animals which people use or with which they share resources are the source of aesthetic delight or revulsion. Conservation science has not yet paid attention to how people’s perceptions of animals’ physical appearance affect their attitudes towards their conservation and related implications for policy. Next, to justify my claim that it is important that conservation science takes note of local aesthetic valuation of wildlife in Africa’s rural areas, I discuss insights from my Ph.D. (Roque de Pinho, 2009) and findings from a case study by Roque de Pinho et al. (Accepted).

The question of beauty in Maasailand

The Amboseli Ecosystem in Kajiado County, southern Kenya Maasailand, is a good place to start exploring local aesthetic appreciation of wildlife and its influence on conservation for two reasons: the local Amboseli National Park (hereafter, ANP) pioneered CBC initiatives; and the local Maasai pastoralists are renowned for their spatially close and benign relationship with wildlife, having coexisted in the ecosystem since about 500 AD (Galaty, 1993). Western (1994) has described their ecologies as intertwined and compatible.

The Amboseli semi-arid Ecosystem covers 8,500 km² of Kajiado County (BurnSilver and Worden, 2007) in the Rift Valley Province and includes at its core the small, unfenced (392 km²) Amboseli NP (Kenya Wildlife Service, 2013), one of Kenya’s most visited parks (Okello et al., 2008). In the rainy season, wildlife disperse out of the park onto surrounding privately and communally owned Maasai ranches (group ranches). The extent of this seasonal dispersal defines the ecosystem’s boundaries (Western, 1975). Maasai

are historically transhumant pastoralists with a subsistence economy based on their cattle and small stock (Western and Dunne, 1979). Because they hardly eat wild animals, except in droughts (Collett, 1987), until the advent of tourism and conservation projects these had little economic value (see Roque de Pinho, 2009 for species' uses). People are now diversifying their economy and land use (Wangui, 2008), formally educating their children and becoming Christians (Roque de Pinho, 2009) while privatizing the group ranches and subdividing the land (Western et al., 2009).

Historically at the forefront of CBC (Western, 1982), the ecosystem boasts a profusion of initiatives using economic incentives to promote support for wildlife conservation among local communities (Western and Wright, 1994). These benefits include ANP revenue sharing through KWS; economic compensation of wildlife damages (MacLennan et al., 2009), income from wildlife cropping schemes, employment; and health services, secondary education scholarships and outlets for Maasai craft provided by small-scale private and locally managed community-based conservation initiatives (Roque de Pinho, 2009). The possibility that non-utilitarian values of wildlife to pastoralists, such as their aesthetic value, could inform local conservation strategies has been overlooked.

Beauty, nevertheless, is a frequent conversation topic among Maasai pastoralists. Like other East African pastoralists (Evans-Pritchard, 1940, Coote, 1992, Almagor, 1983, Turton, 1980, Infield et al., 2003, Schneider, 1956, Ab-bink, 2006), Maasai evaluate the attractiveness of each other's cattle and their visual qualities (e.g., horn shape; coat color patterns) (Mol, 1996, Finch and Western, 1977), which are codified in sophisticated nomenclatures (Roque de Pinho, 2009). Like anyone else, they judge the aesthetic qualities of people, for instance teasing members of other clans for their alleged ugliness. Meanwhile *ilmurran* ("warriors") adorn themselves to attract girlfriends; and women debate at length the "beauty" of clothes and respective color combinations (I was the daily target of such, not always positive, evaluations. See Roque de Pinho, 2009). Limited research on Maasai aesthetics has focused on female beadwork expertise (Klumpp and Kratz, 1993). It is clear to anyone spending time in Maasailand that Maasai have a refined aesthetic sense. It would thus be peculiar if aesthetics did not intervene in their relationships with the wild animals with which they share the land.

It is precisely this aspect that I endeavored to examine in the context of my Ph.D. To this effect, I conducted two-year ethnographic fieldwork in the Amboseli Ecosystem, with a mixed methods approach combining qualitative and quantitative data collection and analyses. Long-term ethnography, with extensive qualitative data collection, including participant observation and unstructured interviews (conducted in Maa, with focus-groups and key-informant interviews) helped to formulate culturally accurate questions, to define concepts for the field research's subsequent stages (i.e., semi-structured interviewing and free listing) and interpret quantitative results (See Drury et al., 2011). In particular, learning Maa was instrumental to grasping local meanings of beauty and ugliness. I paid special attention to linguistic nuances to ensure that informants understood my questions to be about animal "physical attractiveness". Hence, to avoid confusion resulting from the double meaning of *sidai*, a Maasai word for both good and/or beautiful, the interviews featured

instead the verb *atil*, i.e., “to please one’s eye”. A similar situation occurred with the notion of ugliness (See Roque de Pinho 2009).

Please refer to Roque de Pinho (2009) and Roque de Pinho et al. (Accepted) for a detailed description of the study sites and methods and for the qualitative analysis of the role of aesthetics in Maasai-wildlife relationships. Roque de Pinho et al. (Accepted) conducted 191 semi-structured interviews in randomly selected households across three study sites around ANP that contrast in land tenure and/or use, access to economic benefits from conservation and distance to the park (Fig. 1).



Figure 1. The Osilalei, Emeshenani and Imbirikani study sites within the Greater Amboseli Ecosystem. Dots are the settlements where the interviews took place. In: Roque de Pinho, J., Grilo, C., Boone, R. B., Galvin, K. A. & Snodgrass, J. G. Accepted. Influence of Aesthetic Appreciation of Wildlife Species on Attitudes towards their Conservation in Kenyan Agropastoralist Communities. *PLoS ONE*.

To quantify the effects of aesthetic judgments of individual species on attitudes towards conservation, informants freely listed (Bernard, 2002, Weller and Romney, 1988) the animals they found physically attractive (“beautiful”) and physically unattractive (“ugly”). Next, they listed species while answering these questions: 1) “If wild animals were disappearing from this land and God gave you the power to rescue some of them, which ones would you rescue?” and 2) “If God gave you the power to make some wild animals disappear from this land, which ones would you like to see removed?” The respective answers

were interpreted as revealing informants’ support for rescuing the listed species; and their support for their local removal. The effect of perceiving species as beautiful on support for rescuing them, and of perceiving them as ugly on supporting their local removal while controlling for informant personal and household socioeconomic variables was quantified through a Generalized Linear Mixed Models (GLMM) approach. Informants’ explanations for their listing decisions were qualitatively analyzed to characterize how aesthetic appreciation of species intervened in their listing decisions.

“The land looks beautiful with wildlife on it”: aesthetic appreciation of wildlife by Kenyan Maasai pastoralists

Aesthetic enjoyment shines through the local discourse about wild animals. Pleasure in seeing them positively shapes local human-wildlife relationships. Although some informants declare that wildlife cannot be beautiful because they are not cattle, to many others the sight of wild animals in the landscape pleases them thanks to their “decorative” qualities. Expectedly, there is great variability in aesthetic judgments of individual species: some species are beautiful to some informants and ugly to others (Fig. 2).

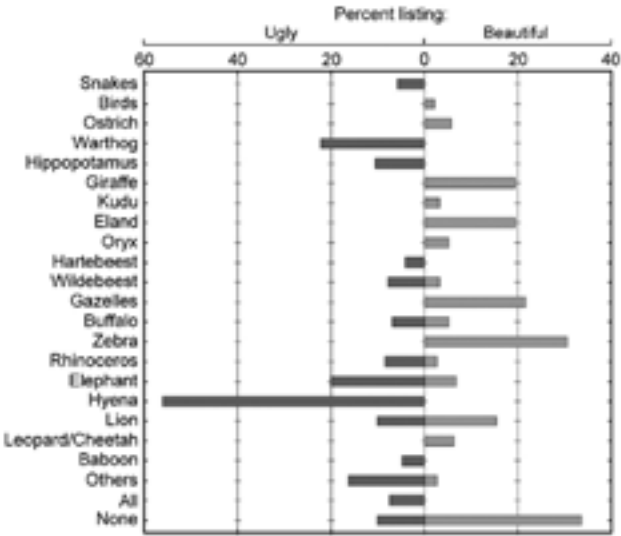


Figure 2. Species listed as beautiful and ugly by informants. Dark gray bars represent percentages of informants who listed each beautiful species (n=190; multiple species allowed). Light gray bars represent percentages of informants who listed each ugly species (n=189; multiple species allowed). The “other” category includes species listed less than 1% of the time In: Roque de Pinho, J., Grilo, C., Boone, R. B., Galvin, K. A. & Snodgrass, J. G. Accepted. Influence of Aesthetic Appreciation of Wildlife Species on Attitudes towards their Conservation in Kenyan Agropastoralist Communities. PLoS ONE.

The consensus is that large herbivores are attractive. Interestingly, some species were listed as enjoyable to watch by informants who simultaneously characterized them as harmful (e.g., lion, elephant). These animals’ visual traits and/or fascinating behaviors were cited as overriding these animals’ negative

attributes. The informants also had clear opinions regarding which species are ugly and what makes them so. Some informants justified supporting species' protection and their local removal with their beauty and ugliness, respectively, which qualitatively suggests that economic cost-benefit analyses are not the only influences shaping attitudes towards these species. The influence of aesthetic appreciation on attitudes toward conservation was statistically confirmed, with perceived beauty clearly the strongest variable explaining support for protecting giraffe, gazelles and eland when controlling for informant personal and household variables (Fig. 3).

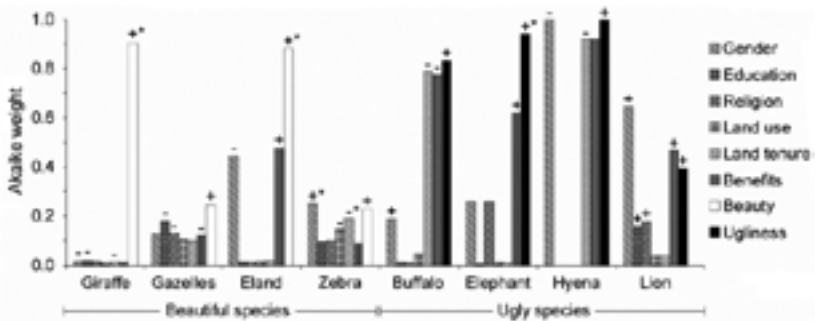


Figure 3. Relative importance of variables in most supported models explaining support for rescuing and removing species. (+) and (-) signs indicate a positive and negative relationship with the response variable in the most supported models (respectively, support for rescuing species and support for removing species); (*): 0.05 significance level. In: Roque de Pinho, J., Grilo, C., Boone, R. B., Galvin, K. A. & Snodgrass, J. G. Accepted. Influence of Aesthetic Appreciation of Wildlife Species on Attitudes towards their Conservation in Kenyan Agropastoralist Communities. PLoS ONE.

Perceived ugliness strongly influences support for the removal of buffalo, hyena, and elephant (but not lion), although its effects are similar in strength to the other explanatory variables' effects. In contrast with the strength of aesthetic appreciation, the effects of economic benefits from wildlife in the household on support for rescuing the beautiful species are less clear. Surprisingly, their influence is positive on support for lion and elephant removal, which of course is unintended by the CBC initiatives using income from wildlife as a pro-conservation argument.

Implications for conservation

Wildlife beauty matters in Africa, too

Several conclusions are warranted from Roque de Pinho (2009) and Roque de Pinho et al. (Accepted). Highlighting the diversity and sophistication of aesthetic judgments of wildlife among southern Kenya Maasai pastoralists, this work shows that aesthetic appreciation of biodiversity is not restricted to the industrialized world. Just as is the case there (Knight, 2008, Knegtering et al., 2002, Frynta et al., 2010, 2013), human aesthetic appreciation of animal

species influences attitudes towards their conservation in Maasailand. Beauty matters for how pastoralists relate with and value the wildlife that lives on their land and in the national park. These are significant findings since the issue of local aesthetic appreciation of wildlife has not been addressed in depth in Africa. They are relevant in light of what I see as a biased framing of rural land users as being too concerned with subsistence to have non-utilitarian appreciation of biodiversity. That Maasai pastoralists appreciate wildlife in general and some species in particular for their beauty contradicts the prevailing conservation discourse that conceptualizes human-environmental relationships in developing countries as utilitarian and/or defined by conflict. These notions do not fully reflect the experiences and feelings of rural land users towards the wild animals with which they share resources. As I argue below, it can also foreclose potential avenues for solving conservation problems and developing conservation strategies.

The importance of seeing animals

One implication for conservation derives from the fact that valuing wild animals aesthetically depends on seeing them. Maasai pastoralists not only aesthetically appreciate wildlife but also actively seek them for the visual delight they provide. What would happen if people no longer see them? Stokes (2006) argues that the power of species' aesthetic appeal as a motivator for conserving biodiversity remains latent in people who have not experienced it and thus will not miss species they have never seen. In Amboseli, from lack of mans, few residents have ever visited Amboseli NP, where they could more easily see these animals. As land tenure is changing from communal to private (Western et al., 2009), the most charismatic and endangered species have disappeared and younger people have not seen elephants and lions. The creation of ANP and other smaller conservation areas, even if locally owned/managed, has meant greater separation of people and wildlife due to restrictions on herding (Roque de Pinho 2009). Because of schooling and urban employment (McCabe, 2003, May and Ole Ikayo, 2007), youth are spending less time herding and observing wildlife in their natural contexts. In this process, people might be losing some of the familiarity they have had with wildlife, which underlies their aesthetic appreciation.

Stokes (2007) suggests providing opportunities for the public to experience biodiversity through images, exhibits and direct contact as an important means to raise support for conservation. My qualitative analysis suggests that in Amboseli too exposure to species could be a viable strategy to nurture positive attitudes towards their conservation. Conservation initiatives in the region could facilitate visits of children and adults to protected areas so they can view rarely seen animals or the ones that are most commonly seen in conflict with human interests outside of protected areas. This approach, which is currently being pioneered in Tanzania (Wildlife Connection, 2013), could potentially promote appreciation for wildlife by building upon a pre-existing value of wildlife: their "beauty." Maasai parents themselves value encounters with wildlife as educational opportunities. As one of them explains, "Wild animals are beautiful to look at, so children can differentiate between the polite ones and the aggressive ones" (Jr. Elder). In the words of another one: "It would be good to have rhinos

around because that would avoid taking children to Nairobi [National Park] to see them” (Sr. Elder).

This strategy could also help counteract negative attitudes towards ugly animals: when ugliness explains support for removing species, I hypothesize that attitudes could be improved by promoting people’s direct exposure to these animals. This approach has yielded positive results for the conservation of unpopular taxa in the North: Ballouard et al. (2012) and Randler et al. (2012) show that direct exposure to them improves attitudes towards conservation as education alone is not enough to change them (Heberlein, 2012). Displaying unpopular species more attractively also improves public perceptions thereof (Prokop and Fančovičová, 2013, Jacobson et al., 2011), again suggesting how influential our subjective aesthetic judgments are. In the North, encounters with wildlife in their environment hold aesthetic meanings for the people involved in them and positively shape their appreciation thereof (Deruiter and Donnelly, 2002). Since valuing a species for its beauty requires seeing it, protected areas in developing countries should thus connect the people who live around them with the animals they protect. Additionally, in Amboseli and other contexts where park-communities relationships have been strained by local perceptions that conservationists and the government care less about human wellbeing than wildlife’s, this approach would signal goodwill on the part of park authorities and conservation institutions, and contribute to build trust, according to Stern (2008), the most critical aspect in positive park-communities relationships (see also Madden, 2010).

Risks of economic incentives approaches to conservation

The fact that economic benefits of wildlife in Maasai households do not clearly explain attitudes towards conservation (Roque de Pinho et al., Accepted) suggests the need for more research on how non-economic and economic values of human-wildlife coexistence interact to influence conservation outcomes. Non-responsiveness to economic incentives could indicate that other values are at play, such as the perceived aesthetic value of species.

Conservation strategies in Africa have mostly followed an economic logic. However, given the importance of non-economic dimensions in human-wildlife interactions, as I show here among Maasai communities that have been targeted by many conservation initiatives, focusing exclusively on local economic rationality can be a risky approach to complex conservation issues. I would argue that imbuing wildlife with monetary value might compromise non-economic reasons for which some species, even the species that are simultaneously perceived as harmful, are tolerated and liked. Specifically, if the motivation to conserve wildlife becomes purely economic and its non-economic values are ignored or lost in the process, negative effects could ensue if financial incentives to conserve wildlife are discontinued or not forthcoming (see also Gadd 2005).

In Amboseli, wildlife’s economic value as promoted by current CBC initiatives and by the Kenyan educational system (Ali, 2002), is still mostly an abstraction. Most local households have not benefited economically from wildlife and positive attitudes towards conservation reflect expectations of yet to realize economic gain (Roque de Pinho, 2009, Groom and Harris, 2008).

Building up these expectations of income from wildlife could interfere with local pleasure in seeing animals for their aesthetic appeal or behavioral interest. I suggest that this shift is underway in Amboseli: for some informants, animals like buffalo and elephants, typically considered ugly, are “becoming” beautiful because “they have a good picture for tourists” (Roque de Pinho 2009). What if tourists do not come? The current global economic recession and unfavorable terrorism-related travel advisories (Schreck, 2013) remind us that tourism is a shaky foundation for conservation.

Approaches to conservation based on economic incentives have also proved problematic in other parts of East Africa (Sachedina and Nelson, 2010). Questioning the supremacy of economic value as a premise for conservation, Barrett & Arcese (1995) argue that the income-generating and food-providing roles of wildlife do not fully explain people-wildlife interactions in Africa. In the North, Thompson (1995) advocates that public environmental awareness driven by aesthetics should have people value natural things for what they are. On advantage of this approach is that biodiversity’s aesthetic value is immediate and durable, in contrast with its commodity value that is usually in the future (e.g., drugs to discover) (Kiestler, 1997). Likewise, in Maasailand, valuing wildlife aesthetically does not (yet) rely on potentially unreliable funding. This should be viewed as a conservation opportunity rather than a hindrance.

From conflict to human-wildlife coexistence

We’re not used to each other anymore. So, when we meet, we are enemies. Before, the lion didn’t eat people that much [...] (Amboseli, Maasai woman, 2004 interview)

Human-wildlife conflict (HWC) has been another predominant analytical framework for human-wildlife relationships in Africa. Contrary to recent calls for a return to more traditional preservationist approaches to conservation and for stepping-up “fences-and-fines” approaches (Hutton et al., 2005) – in the process increasing spatial and physical separation between people and wildlife – I concur with Kuryian (2002) that positive dimensions of human-wildlife coexistence should be researched and feature in conservation design. Harnessing these could improve local acceptance of conservation strategies because they are respectful of local ecological knowledge and cultural values (Infield 2011, Goldman et al., 2010).

While there can, indeed, be little overlap between Westerners’ preferences for wild animals and the preferences of rural Africans who are threatened by those “beautiful” animals in their daily lives, Goldman et al. (2010, 2013) and Robinson et al. (2012) have also shown that the relationship between local people and conservation goals is not just one of conflict. Prior to the implementation of conservation initiatives, there can be common ground between conservation objectives and local communities’ goals for species’ management. In Amboseli, this common ground is patent in the fact that pastoralists consider some species that are targets of important conservation efforts (lion and elephant) worth conserving because of their aesthetic interest even when considered harmful. This offers an opportunity to move beyond the human-wildlife conflict framework of local conservation initiatives that “constrains

the ways problems are defined and limits the array of potential solutions available” (Peterson et al., 2010: 79). By building upon these local positive dimensions, solutions to local conservation challenges could be broadened beyond economic rewards for “local people who engage in positive conservation activities” (Hazzah et al., 2009) and compensation of economic costs inflicted by wildlife on livelihoods (MacLennan et al., 2009) to include such strategies as local park visitation programs.

To Maasai pastoralists, protected area creation underlies current conflicts with wild animals, which people feel have increased (Roque de Pinho, 2009). An elder poignantly describes the evolution of people’s relationship with wildlife in the ecosystem:

Wild animals were taken by the government and then they’ve become more aggressive. Before, they grazed with the cows and didn’t cause problems... The moment they were snatched from us, they’ve become really wild [...] Wild animals now hate us and are very annoyed with the Maasai. (Sr. elder, 2004 interview)

Hence, connecting people with wild animals, for instance through park visits, I would argue could counteract these partly conservation-linked processes of physical separation between people and wildlife and offset a related decrease in local ecological knowledge of animals and increase in negative perceptions shaped by frequent conflict situations with those.

Anthropology, ethnography and conservation science

It is commendable that human factors are increasingly being considered in conservation design and practice: as Madden (2010) argues, biology is only one part of the solution to conservation problems. The field has seen a profusion of studies of human attitudes towards wildlife and conservation (Browne-Núñez and Jonker, 2008) using social psychology survey methods (e.g., Hazzah et al., 2009, Kaltenborn et al., 2006a, 2006b, 1998). However, human-wildlife coexistence is more complex and multifaceted than these frameworks and the use of these methodologies presuppose (Goldman et al., 2010, 2013, Madden, 2010). Also, Heberlein (2012) argues that it is misleading to focus only on attitudes as they are not behaviors.

For the ambiguous and complex non-economic dimensions of human-wildlife relationships to be uncovered and integrated in conservation strategies, more is needed than survey-based conservation social science research, which can be culturally biased and shallow (Goldman et al., 2010, Drury et al., 2011). Anthropologists are well-prepared theoretically and methodologically to disclose the complexities of human-wildlife coexistence and critique approaches to conservation that are based on narrow understandings of human-wildlife relationships as antagonistic and economically-driven. In the Amboseli case-study, the ethnographic, mixed-methods approach based on continuous collection of qualitative data through participant observation and interviews, and attention to linguistics nuances were crucial to these endeavors. Contributing their methodological skills and their deep engagements with the communities that live with wildlife and are affected by conservation policies, anthropologists should be at the forefront of efforts to move conservation science towards notions of coexistence.

Conclusion

In approaches coupling biodiversity conservation with economic development, conservationists are slowly but surely paying attention to the cultural, social and political economic dimensions of conservation. However, more research is needed on how aesthetic appreciation mediates human-environmental relationships in Africa and how this knowledge can inform conservation strategies. I hope the findings from Amboseli I discussed here encourage a reconsideration of how African rural land users are depicted in their relationship with biodiversity independently of their socioeconomic context. Livelihood dependence on natural resources, as is the case for Maasai pastoralists, should not be seen as precluding an aesthetic appreciation of nature as part of a broader relationship that is not just based on monetary considerations. To illustrate this point, an Amboseli Maasai elder offers the concluding words:

Wild animals and us were all created together by the same God. It makes Enkai [God] happy to see us staying together because we're all from the same mother and we've been staying together in the past. That's why you see a lion eating a cow and that's fine. That's why people sometimes eat wild animals and that's fine. Because we're all sharing each other (Sr. elder, interview 2004)

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