

Original Paper

Angry Birds... All in a Twitter about Trophy Hunting: Are the Big Five Safe under the Eaves?

Metolo Foyet^{1*}

¹ Department of Geography, University of Florida, Gainesville, USA

* Metolo Foyet, Department of Geography, University of Florida, Gainesville, USA

Received: May 13, 2024

Accepted: May 23, 2024

Online Published: June 3, 2024

doi:10.22158/jpbr.v6n2p30

URL: <http://dx.doi.org/10.22158/jpbr.v6n2p30>

Abstract

Trophy hunting has turned into a contentious global debate opposing urban westerners and rural African communities. The former argue for animal rights. The latter argue for human rights, de-colonialism and legitimacy over their resources, relying on the principle that legal rights should be given back to local people to sustainably use their wildlife. While human geography studies have examined both trophy hunting and social media influences on people and places, conservation as a body of knowledge has not yet caught up with the role of cyber-movements in spreading discourses. This paper presents a case study using netnography, content analysis and the Cycle of Aggression theory to capture the perception of Twitter users towards trophy hunting in Africa. Rural African communities are demanding a new deal in which they are shareholders rather than disempowered stakeholders in their own wildlife resource use and management. Thus, externally imposed bans, including import bans, undermine not only the foundations of sustainable wildlife management but also the rights of local peoples.

Keywords

trophy hunting, wildlife, Africa, cyber-activism, hashtag, twitter

1. Introduction

Worldwide, the trophy hunting debate has already made a name for its sweltering positions. On one hand, there is emotional contention over hunting performances and their moral premise and implications. This hasty shock, triggered by a precipitated post on social media (Facebook) showing the American dentist Walter Palmer and the Zimbabwean lion he just shot, sparked digital hype that grew into the “Cecilgate” cyber-movement. What was mere clicktivism has since evolved into efforts at various levels to end or restrict trophy hunting, including through bans (Dickman, 2018) on the carriage

or import of hunting trophies (Cooney, et al., 2017). As the story went viral, matters escalated to life-threatening notes and an abusive quality of discourses from anti-trophy individuals and groups on social media such as X (formerly known as Twitter at the time of the study). On the other hand, there is substantial evidence that trophy hunting is a sustainable and viable land use instrument that produces positive outcomes for both wildlife conservation and local people (Muposhi, Gandiwa, Bartels, & Makuza, 2016; Nqobizitha, 2019; IUCN, 2019; Rudd, et al., 2021).

The livelihoods of indigenous peoples, custodians of the world's [ecological systems] since time immemorial, were eroded as colonial powers claimed de jure control over their ancestral lands. The continuation of European land regimes in Africa and Asia meant that the withdrawal of colonial powers did not bring about a return to customary land tenure. In reflecting on this issue from the perspective of colonial land tenure systems, [...] the importance of individualized land ownership, cultivation, and fortress conservation—are intellectually flawed. Persisting support for “fortress” style conservation and prevailing conservation policies, made possible by global Non-Governmental Organisations (NGOs) and statutory donors, continues to harm indigenous peoples, their traditional territories and communities and overlooks sustainable solutions to deepening climate crises.

Lara Dominguez and Colin Luoma (2020)

Drawing from the authors' experience representing the Batwa (DRC), the Adivasis (India), and the Ogiek and the Endorois (Kenya) in international litigation.

The African people are in the centre of this debate as a result of the “Cecil incident” and are increasingly requesting more than ever to be left alone to manage their own land:

The global North must not continue to externally impose their own ideals upon the global South, such as pushing trophy hunting bans and restrictions (Resource Africa, 2020), where local communities warn they are directly undermining both successful conservation and human rights (Dickman, Child, Hart, & Semcer, 2021).

Standard approaches to conservation are reaching the limits of what they can accomplish. Traditional conservation approaches problems by thinking fast, emotionally, and repeating the patterns that we know (Child, 2019). Pragmatic conservationists adopt a calm approach of thinking slowly, carefully investigating systems, and inventing innovative solutions (Kahneman, 2011; Child, 2019). According to the Dutch caritative association Forest Peoples Programme, successful conservation requires a remedy that is both much more straightforward and far more radical. Rather than imposing the demarcation of protected areas and including local people as an afterthought, the right to own and manage the resources upon which communities depend needs to be recognized and supported (FPP, 2020). People dependent upon wildlife will only benefit if their rights are recognized including both the land where

they are living and the spaces and places where they have customary use. As stated by Liz Wiley (2011):

By depriving communities of recognition that they are the lawful owners of forested and rangeland resources, the law removes their greatest incentive to use these assets in sustainable ways, let alone adopt more active and policed systems which, as the local residential populace, they are best positioned to operate and sustain (2011, p. 93).

It is only when we develop new and complementary paradigms for conservation that we will have the tools to make this happen. The protection of species from extinction, the maintenance and restoration of habitats, the enhancement of ecosystem services and the protection of biological diversity are effectively and efficiently achieved when protected areas are complemented by a sustainable governance approach that includes devolution, Community-Based Natural Resource Management (CBNRM), and the notion of financial empowerment, as encapsulated in Child's price-proprietorship (Note 1) model (Child, 2019).

While the Cecil event occurred in 2015, it is still hotly debated. Despite the hostile nature of the debate, Palmer's Twitter post brought trophy hunting to the forefront of popular discourse and offered an opportunity for the world to discover a new paradigm shift in conservation practice. By problematizing the African-invented trophy hunting-based wildlife conservation model, the anti-trophy movement has created a "crisis of legitimacy" that will generate a deeper analysis of the colonial history of and imperialist grasp on trophy hunting and their ramifications for the protection and development of African wildlife habitats (Abbott, 2006). Anti-trophy hunting discourses are interfering with novel conservation paradigms and exposing the "whiteness" of traditional conservation. These discourses have also paved the way for a dialogue in which supporters of trophy hunting, together with those ones who have never had a seat at the decision-making table, can be heard.

1.1 Novelty of the Study

This study investigates the perceptions of Tweeters (Note 2) towards trophy hunting in Africa, and how these discourses differ from that of local people and local park objectives. Little research has been conducted on the impact of cyber-activism on the livelihoods of indigenous people in Africa's wild areas. The findings show that the anti-trophy hunting movement [exclusively referring to some: celebrities, Non-Governmental Organisations (NGOs), media outlets, politicians, and citizens of western countries] on Twitter portrays trophy hunting as barbaric and senseless, and that those associated (near or distant, past or present) with trophy-hunting activities are mentally disturbed. However, accredited representatives of indigenous voices, community-based or led conservancies, and credited African and international scholars support the Southern African model for its proven positive environmental, social, and economic impacts, both at the local and national levels.

The novelty of the study lies in its exploration of the impact of cyber-activism on (a) the latter two of the following three types of trophy hunting debates and on (b) how Twitter discourses shape perceptions and policies.

Table 1. Comparative Analysis of the Impact of Cyber-activism on Trophy Hunting Debates

Type of trophy hunting debates:	Discussion about, Arguments for or against & Perspectives on trophy hunting are occurring among:	Emphasis on:
The trophy-hunting debate	All actors combined, whatever the role they play, including the publics and counter-publics.	i. the activity of trophy hunting in general.
The trophy-hunting-debate in Africa	African stakeholders, policymakers, communities and the African public based in Africa.	i. the location of the debate (which is within Africa). ii. the activity of trophy hunting as it occurs in the African context, including its implications, regulations, and impact on African wildlife and communities.
The trophy-hunting-in-Africa debate	African and non-African stakeholders, policymakers, communities, and publics, including Africa's diaspora, international perspectives and policies that influence or critique trophy hunting practices in African countries.	iii. the broader implications and impacts of ii. and involved international viewpoints and discussions on non-African and global economies.

The study uses netnography, content analysis and the Cycle of Aggression theory to examine the views of Twitter users on trophy hunting and contrasts these with the perspectives of local African communities. This approach highlights the role of digital movements in influencing conservation practices and policies, addressing a gap in existing research by focusing on the intersection of social media, wildlife conservation, and indigenous rights. The study's emphasis on the voices of rural African communities and their demand for a new deal in wildlife management adds a unique perspective to the ongoing global debate on trophy hunting.

1.2 Cyber-Activism and Trophy Hunting

The 2015 Cecil incident sparked outrage from the international community and people from the United States (US) in particular. This outrage led to an ideological war between a growing urban population

blinded by the confines of American imperialism and isolated from the reality outside America, versus rural Africans whose lifestyles include wildlife-based activities (DeGeorges, 2020). The trophy hunting debate would not have reached such impassioned heights if not for the emergence of social media, particularly valued for its multiplier effect. In the past, social movements were organized in traditional, non-digital formats. Today, the internet grants access to endless platforms that allow for communication across vast geographic distances, thus enabling the rise of new forms of cultural and political solidarity over matters that were once unknown to the wide public (Dewar, 1998). As Victoria Carty and Jake Onyett (2006) stated: “the internet is more persuasive and effective than any other media in diffusing social ideas and actions within a global community”.

These digital movements, described as cyber-activism or clicktivism, refer to the manipulation of electronic communication technologies such as podcasts, social media platforms (e.g., WhatsApp, YouTube, Facebook, Snapchat, Twitter) for various forms of activism to enable faster communication and the delivery of information to a large audience (Sandoval-Almazan & Gil-Garcia, 2014). Cyber-activism develops around issues highlighted through networked interaction of various players, including traditional activist groups, spontaneous aggregation, and individuals (Illia, 2003).

According to Harlow (2012), “although social media sites were not created with activism in mind, they are the most common entrance to online activism”. However, what Harlow argues as being social media’s strength - all it takes to attract and mobilise participants for a cause is a click of a mouse—is also its flaw. Simply clicking to “sign petition” greatly undermines causes by creating slacktivism, or users jumping into activism as a result of followership effect and without real commitment (Drumbl, 2012; Harlow, 2012; Karpf, 2010).

Nonetheless, in an era where human-animal relation in the conservation industry is frequently contested in public virtual-scapes, a closer examination of the impact of these digital discourses on conservation practice is needed. Critical digital conservation studies are needed, as Tweets, likes, and posts have moved offline and are influencing real-life laws and regulations with serious implications on lives across borders (Munar et al., 2013).

2. Methods

2.1 Online Data

The study adopted a monomodal case study approach, consisting solely of online fieldwork, also known as netnography. Data were gathered online. This part of the study sought multimodal online publications and social media narratives relating to trophy hunting. Data searches were conducted using Google and Twitter search engines, with various combinations of terms “trophy hunting”, “wildlife trade”, “trophy the film”, “trophy hunting ban”, “cecil the lion”, “game hunting”, “canned hunting”, “end trophy hunting”, “expose trophy hunting”, “conservation financing”, “wildlife conservation”, “wildlife trafficking”.

To extract relevant Tweets, an algorithm was built to scan only Tweets related to the above-mentioned terms (hashtags) and filtered according to the following Tweet attributes: username, location, followers, retweet count, text, hashtags, created at, user verified and favorite count. Out of the 1,774 original Tweets that were yielded, all of which spanned over a seven-year period (December 2014-October 2021), 170 Tweets were retrieved after a manual scan that consisted of eliminating replicas and Tweets that did not address trophy hunting in Africa (e.g., hunting news in Australia, Indonesia, Peru; Colombian government signing anti-trophy hunting bill, fundraising adverts, photo tourism, zoonotic diseases, arrestations of trophy dealers in China, trophy won by athletes, wildlife trafficking in Europe, covid's effect on tourism, and adverts of webinars such as the conservation symposium).

The selected Tweets included rich multi-perspective sources such as: Youtube videos and responses (user comments) to them, Facebook posts and their related comments, peer reviewed articles, opinion pieces from online magazines, and campaigns from organisations at each end of the conservation spectrum.

2.2 Thematic Analysis

Once data were gathered, analysis began with open coding, highlighting segments that pointed to (i) the diversity of reactions (Note 3) to trophy hunting from various stakeholders (ii) the attitude of various stakeholders when exposed to the perception of local people towards trophy hunting (iii) developments in the trophy hunting industry since the Cecil event. After the initial coding, codes were grouped into colors to facilitate the identification of patterns: white (for petition-related Tweets), yellow (for Tweets of educative nature), brown (for neutral Tweets), gray (for Tweets admitting trophy hunting happens in the USA too), purple (for subtle Tweets tainted with irony), blue (for discriminatory Tweets) and orange (for psychologically violent Tweets). The grouped codes were categorised under themes from the Aggression Cycle chart (see Appendix A) —based on Lenore Walkers' cycle of violence (1979)—to capture the key insights from the data.

Coded elements displayed the following pattern: 50 Tweets had discriminatory content, 41 Tweets were pro-trophy hunting, 36 Tweets were highly sensitive given the intensity of the words used and their psychological effect, 19 Tweets were educational, 11 Tweets exposed trophy hunting activities in countries from where anti-trophy hunting supporters originate from, 5 Tweets were ironical, 5 other Tweets were nonaligned and finally, 3 Tweets dealt with petitions. Irrelevant variables were not coded. Findings are presented in a discursive thematic format, within the structure set out by the Cycle of Aggression chart: escalation phase, explosion phase, post explosion phase (Appendix).

2.3 Research Ethics

To aggregate analysis of Twitter content (in this case, downloading Tweets for analysis), I first had to make a request to the Twitter API by applying for a developer account and having my use case approved. This process was done from my Twitter account and was necessary for Twitter to know that I wanted to access it through a bot. Once approved, a research project and associated developer app (bot)

were created. Subsequently, credentials were generated and used by the bot to identify itself to Twitter on my behalf. The bot was then launched, and the Tweets were retrieved in a csv format. To protect the anonymity of individual participants, usernames drawn from online content, were removed. No data were actively sought from online users beyond what was already publicly available. To preserve their raw authenticity, online data were not edited for typographical and other errors.

This study has a small sample size with one media outlet targeted for study. As such, results are not generalisable to the wider population. Despite this limitation, the study provides important insights into the perspectives of Twitter users on trophy hunting in Africa, a debate that could have arguably been settled by now if not for the overly emotional reactions animated by misinformation. This study involves examining Tweets and Tweepers' perceptions of trophy hunting in Africa using content analysis. It is part of a larger research project that investigates and compares the perceptions of people who do not live with wildlife to the voices of indigenous people who share their habitats with wildlife in Africa.

2.4 Theoretical Framework

Developed in the 1940s, content analysis is used to explore mental models and their linguistic, affective, cognitive, social, cultural, and historical significance. Content analysis focuses on communication, determines intentions, and identifies bias. It does not only look to separate objective characteristics versus conceptual characteristics, but it is also a systematic and replicable way of condensing many words of text into fewer categories based on set upon rules of coding. It is used to sift through large volumes of data and identify trends and patterns. Content analysis also involves quantifying qualitative data by counting the frequency of specific words or groups of words mentioned. Additionally, it differs in that codes and categories are established prior to the coding process.

Having identified keywords prior to my study, which were central to determining the kind of data (Tweets) I was interested in, my content analysis approach was initially summative (Hseigh & Shannon, 2005). However, once the data was gathered, manually scanning it revealed “anger” as a common variable in most of the Tweets. This discovery led me to adopt the Aggression Cycle theory as the backbone of the study, incorporating a directed approach to my content analysis. Finally, as additional codes emerged during data analysis through observation, my content analysis also took on a conventional attribute.



Figure 1. Stages of Anger by Rebecca Jasper (2014)

3. Results and Discussion

3.1 The Perspective of Members of Twitter's Anti-trophy Movement

#TrophyHunters who murder #Animals with high powered weapons and take pics as though it is something to be proud of it isn't These Sub Humans have something lacking #TrophyHunting is a blight on mankind, How the hell could you shoot to kill an #Animal for your vanity pathetic—(Australia).

The above Tweet sets the stage for how members of the anti-trophy hunting movement on Twitter view trophy hunting. Thematic analysis of Tweets paints an interesting picture of abusive attitudes of the anti-trophy hunting community on social media. Out of the ten categories of abuse identified by the social care institute for excellence (SCIE, 2015), two were observed to be practiced by anti-trophy supporters on Twitter: psychological or emotional abuse, and discriminatory abuse.

The fact that social media is built as a tool aimed at embracing global and compassionate perspectives makes it the best tool for anti-trophy supporters who capitalize on emotions (Mkono, 2018) to promote the ban of an activity that accounts for the survival of entire communities. For the purpose of this study, Twitter, the platform from which opinions have been aggregated for analysis, offers the anti-trophy hunting movement the opportunity to enhance its repertoire by launching campaigns, online petitions, and even virtual sit-ins to activists' existing toolbox (Hala, Haddad, Ali, & Alshabani, 2019).

To date, Tweets in favour of ending trophy hunting bring up lengthy Twitter threads. As Lindsey et al. (2016) put it: "Cecil-gate reflects a [...] growing objection to the notion of hunting wildlife for sport, particularly among urban masses who buy their meats and saran fish wrapped at the supermarket, who have never been to a slaughterhouse where animals are crying out as they realize they are about to die, and can barely relate to the fact that it once had fur, feathers or scales" (p. 296).

3.2 Psychological/Emotional Abuse

When sharing their disapproval of trophy hunting, anti-trophy hunting Tweeters construct their Tweets in manners that allude to destruction of property or valued possessions, blame supporters of

trophy-hunting for problems in the conservation field, and frame trophy hunters in disparaging forms to undermine their self-esteem and self-worth (Government of New South Wales, n.d.) and even proliferating death threats. For example, British entertainer states, “Trophy Hunting? It’s NOT conservation, it’s PSYCHOPATHS who like killing things—@tweeter10 (UK)”. Constituting 21% of the 170 studied Tweets, these messages were so aggressive that they were accompanied by a notice from Twitter stating, “the following media includes potentially sensitive content”. As shown in the quotes below, Tweeters describe trophy hunting activities and supporters with brutal wordings such as—sub humans, deplorable psychopaths, moral deviants, agony lovers, murderers, unrepentant, exterminators, sick bloodlust, cuntish, perverted pleasure, caging trophy hunters and leaving them bleeding to death, favorites of spineless governments and corrupted establishments—can be detrimental for the reader’s mental health, irrespective of the person being a trophy hunter supporter or a non-concerned user who landed on the Tweets by accident.

What a horrible man. Would he think it fine if someone paid a £30,000 to kill him and leave him bleeding to death. #TrophyHunting should be banned and those who do it should be caged for a few years—@tweeter20 (UK)

Why did the Minnesota dentist who killed Cecil the Lion get his life destroyed while Don Jr. continues to go around the world killing big cats and other rare and endangered animals for his own cowardly and perverted pleasure?—@tweeter11 (USA)

A new low for this senseless “sport”. Our perception of animals as second-class citizens needs to change. Until then, we need to implement a global ban against #trophyhunting, especially for endangered species, before it’s too late. Disgusting. #antispeciesism, #anthropocentrism—@tweeterC1 (Canada)

This “hunter” sneaked up on a SLEEPING #Lion and killed it! How brave, how sporting—HOW CUNTISH!!!!—@tweeter22 (USA)

The display of statements such as “if someone paid [amount] to kill [trophy hunter] and leave him to death” makes this Tweet particularly dangerous, as it incites action towards violence. For example, in the case of Rwanda, a radio speech triggered one of the most disturbing genocides in the world’s history by advocating the annihilation of all Tutsis in the country (UN News, 2023). The radio speech played a significant role in inciting the Rwandan genocide that took place from April to July 1994. In 1994, the station named Radio Télévision Libre des Mille Collines (RTLM) received support from the government-controlled Radio Rwanda, which initially allowed it to transmit using their equipment. Widely listened to by the general population, it projected hate propaganda against Tutsis, moderate Hutus, Belgians, and the United Nations mission UNAMIR (Genocide Archive of Rwanda, n.d).

Please protect our #BigCats by putting an end to #cannedhunting & #trophyhunting - @tweeter33 (USA) | *displays a link to a website on big cats*

Lions did not deserve to be hunted for their skins, let alone to become extinct. There are only 50 Lions left now in the whole country of Nigeria - @tweeter44 (USA) | *displays lion-skin rugs*

Rhinos. Love them. Protect them - @tweeter 55 (USA) | *displays a gorgeous picture of 2 rhinos alive*

Objectifying ALL life for profit will be the end of humanity and the planet. Without #Nature We Do Not Exist! - @tweeter001 | *displays dead rhino*

#Cannedhunting facilities offer customers opportunity to kill exotic & native #animals trapped w/in enclosures - @tweeter002

#Elephants are evolving to be tuskless after years of poaching and #TrophyHunting! - @tweeterIR (Ireland) | *displays tuskless elephant*

Watch this. #Imagine they were #human. It's not difficult! Puts the crime of #TrophyHunting them into #perspectiveElephantBroken heart - (USA) | *displays @tweeter66 (USA) video of baby elephant trapped in*

By using “imagine they were human”, “please protect”, “love them”, “offer opportunity to kill”, “only [small amount] lions left in [whole country]”, “broken heart”, “did not deserve”, “become extinct”, “end of humanity” and displaying emotional pictures that portray beauty and innocence, these Tweets play on the psyche of the public to blame supporters of trophy-hunting for all problems in the conservation field.

There should be no place for #TrophyHunting in the 21st century. [...] Bloodthirsty lion hunter who killed majestic Mopane finally tracked down - @tweeter30 (UK)

#Mopane was left by his killer to suffer in appalling agony for 24 hours. #Trophyhunting is a vile, barbaric hangover of colonialism - @tweeter40 (UK)

The use of “vile”, “bloodthirsty” or “barbaric hangover” connotes that trophy hunting is disgraceful, thus undermining the self-esteem and self-worth of those supporting trophy-hunting.

All these are mentally disturbed people that need serious help. Why is it not recognized as such, clearly these are bully type personality that need to assert themselves over a murdered body to feel dominant – @tweeter77 (USA)

Insights into #trophyhunting behavior of human males. Interesting evolutionary and cultural perspectives of the human #superpredator – @tweeter88 (USA)
| provides a link to a post on Twitter Canada stating: *Biology explains why men kill big game like Cecil the lion — and how that behavior might be stopped*

Majestic animals become props in a story' Geoffrey Beattie on his new book, #trophyhunting : A Psychological Perspective - @tweeterS1 (South Africa)

#TrophyHunting from an Animal Welfare perspective - @tweeter003 (Location Unidentified) | displays a link to a website discussing trophy hunting from an animal welfare perspective

Apologies for showing the worst of humanity on my twitter feed but if it helps even one person change their perspective about trophy hunting, then it won't be in vain. This is wrong wrong wrong wrong. #AnimalRights #lovemore #animals #gentlegiraffe - @tweeter99 (USA) | displays trophy hunter and dead giraffe

Emphasizes such as “mentally disturbed”, “bully type personality” “people that need serious help” “assertion over murdered body to feel dominant” “super-predator behavior”, “psychological perspective”, “animal welfare”, “worst of humanity”, repetition of “wrong” are clearly psychologically abusive speech (Jay, 2009; Hala, Haddad, Ali, & Alshabani, 2019; Svetlana, Nejadgholi, & Fraser, 2021) towards pro-trophy hunting partisans.

3.3 Discriminatory Abuse

This actually is the only kind of #TrophyHunting I can support! Tough when the shoe is on the other foot for cowardly hunters #Pushback #Justice #Entertainment #FairFight - | @tweeter111 displays video (USA) of deer assaulting a trophy hunter and commenting so tough now! Come here, you son of a...!"

Anti-trophy hunting Tweets have also been observed to be discriminatory towards trophy-hunting supporters. This category covers 29% of the 170 studied Tweets. Those responsible for those Tweets apply unequal treatment based on protected characteristics (Equality and Human Rights Commission, n.d.) such as race, and nationality (including citizenship, ethnic or national origins) or religion and belief. Moreover, the anti-trophy movement does not only make use of verbal abuse, derogatory remarks, or inappropriate language, but it also uses tools such as harassment or deliberate exclusion on the grounds of emotion (Dickman, 2018). Denying legitimacy and ownership rights over natural resources and basic rights to healthcare, education, employment, and criminal justice to the local people living with wildlife and supporting trophy hunting is not only highly condescending and colonial, but equally wrong. It is also immoral as attempted wholesale ban on international wild trade is an attack on the wellbeing of African wildlife, people, and their economies (Dickman, Child, Hart, & Semcer, 2021). It prevents the residents of communal lands - basically poor, black people, most of which are women and youth—to share in the benefits generated by wildlife utilization on those lands (Mbaiwa, 2018; Muller, 2020).

In Memoriam. Ultra-rare Black Giraffe in South Africa, Killed this year by unrepentant [Hunter's Name]. [Hunter's Name] claims it was for "conservation" – @tweeterR1 (Russia)

Listen below to yesterday's #trophyhunting debate as [Name] speaks on behalf of the @LeagueNI and defends persecuted animals that fall victim to this unnecessary cruelty. How can this horrific 'hobby' be justified? – @tweeter50 (UK)

The presence of “unrepentant”, “persecuted” and “unnecessary cruelty” in these Tweets suggests that trophy hunting is an activity that dishonors God, thus inferring that trophy hunters are evil beings who refuse to surrender to God’s love. By imposing a conviction and constructing a narrative that implies that anti-trophy hunting supporters are saints and that pro-trophy hunting supporters are sinners, the Tweet applies unequal treatment based on the protected characteristic of religion.

At Interior Department's #TrophyHunting council meeting Professor [Name] said "not a lot results" when you google Africa and good hunting story and suggested council members to tell better stories. I'll say that's because there aren't any. #TrophyHuntingisNotConservation - @tweeter004

Banning #trophyhunting does not create more poachers, community conservation without hunting reduces poaching. Hunters don't bring an influx of liquid assets to any area, feed the population, or establish a market Hunting isn't a contributor to conservation world over - @tweeter122 (USA)

Thank you for putting #trophyhunting in perspective after we saw horrific murder of that beautiful soul. It's all about money - @tweeter005

#Zims nature tourism revenue plunged from USD700 million in 1998 to ~ USD 70 million by 2018, #RememberCecil, perception drives tourism dollars, don't forget #phototourism is worth far more and #trophyhunting doesn't trickle down It is correct to say #WorthMoreAlive - @tweeter006

From all available evidence I've read responsible ecotourism is the heuristic for longterm touristic revenues, while #TrophyHunting is at best a short-term unsustainable stopgap that should be phased out and transitioned into non-consumptive alternatives like photo tourism - @tweeter133 (USA)

Don't believe #[Name of lead author] et al that a ban on #trophyhunting will cause more snaring, poaching Commenced mid-April 2017, the de-snaring program has been successfully managed to remove a total of 59,521 wire snares saving 893 wild animals to date #Tanzania. The constant shutdown from #Prohunt on any other way bar #TrophyHunting is a nonsense! If only #[Name of lead author] et al spent as much time working on alternatives as they do on #SocialMedia - @tweeter007 x2 Tweets

Irrespective of which side of the #TrophyHunting debate you're on, if you're a scientist you should be disappointed that the science around its contributions to #wildlife #conservation has been muddled by close ties between the #industry & some scientists - @tweeter008

Shocked by this response in @sciencemagazine, I expected [Name of lead author] et al's letter to trigger a constructive debate around #trophyhunting but not an open call for dangerous green militarisation! - @tweeter009

Prosecutions Must Be Stepped Up - The Debate Will Now Get Even More Publicity and This Is Another Nail In The Coffin For #TrophyHunting - @tweeter010

We cannot continue to ignore the dangers of the #wildlifetrade, and it's devastating impact on #animals, people and our planet - this is why we're again urging leaders to call for a ban at the #G20Summit #EndWildlifeTrade - @tweeter011

The complete shutdown of #wildlifetrade for all purposes but food security, should remain the ultimate goal, expert argues. - @tweeter012

A healthy debate is due. It's too simplistic to argue that #TrophyHunting is irreplaceable - @tweeter013

We're passionately against #trophyhunting. Our team do everything possible to stop the pointless slaughter of wild animals - @tweeter014

in 21st century we can bring modern conservation model without animals being hunt mercilessly in the name of conservation then we actually can't conserve wildlife - @tweeter015

These Tweets either deliberately exclude on the ground of emotions; misinform the public regarding trophy-hunting impact and results on wildlife population and livelihoods; make use of verbal abuse and derogatory remarks; or deny legitimacy and ownership to the local people coexisting with wildlife and demanding a seat at the decision-making table to ensure decisions are balanced. For example, @tweeter133's Tweet is misleading. In places where ecotourism is not viable, trophy hunting will most

likely help out by creating conservation incentives (Lindsey et al., 2006).

3.4 Be Careful, Deer!

I thought they sawed the Rhino horns off to stop the killings? Or maybe they should spray them blue like the waratah flowers that sell for 25 dollars each here in NSW and should be left in the wild to re-seed. #TrophyHunting #Botswana - @tweeterAUS (Australia)

Despite various conservation efforts by local non-profit organisation WWF South Africa, wildlife remains in need of increased protection - @tweeterS22 (SA)

I hate poachers & trophy killers, & love the karma of this story, but this event will now create a justifiable reason to go on the hunt for that elephant who killed a man. Even though the elephant had the right, the laws & thinking do not protect them. #stoptrophyhunting - @tweeterC2 (Canada)

#DidYouKnow: Southern white rhinos socialize like people. It's pretty common for the cows to make long-lasting friendships when in groups and cohabitating! See, even rhinos get together to gossip - #SaveTheRhino - @rockwood_za | *displays GIF picture of group of rhinos*

A few anti-trophy Tweeters (3%) out of 170 prefer to approach the hot topic with a bit of humor, as depict these subtle Tweets tainted with irony. Tweet 2 suggests that the World Wildlife Fund (WWF) has failed in its mandate of conserving wildlife in South Africa. However, the WWF, through its Kheta project, has contributed to increasing rhino population and maintaining growth rates for elephants by successfully supporting CBNRM policy in South Africa and Mozambique, leading to the increase of payments to communities from 10% to >20% (WWF, 2019) (USAID, 2021). With improved economic benefit, community members loose interest in poaching and allows for better conservation of wildlife.

3.5 What if We Were All Trophy Hunters? Uncomfortable Truth across Frontiers

Bloody #hypocrites - there's no place for Royals in the #trophyhunting debate until they mend their own vile ways - @tweeter60 (UK) | *shares an article from the Independent in which Prince Harry is seen hunting*

When people think about wildlife trade, they may think about ivory smuggling or the commerce in wild pets. But wildlife trade is more present in our daily lives than people imagine - @tweeter70 (UK) | *shares an article on the impact of illegal and unsustainable wildlife trade and what anyone can do about it*

Should debate #TrophyHunting in the #DemDebate @[Name of American politician's offspring] wants to #SaveElephants Elephant #Trump's love killing them - @tweeter130 (USA) | *shares pictures of Donald Trump's son and Hillary Clinton's daughter with wildlife*

Whistleblower accuses Facebook of connecting wildlife traffickers with buyers and sellers - @tweeter144 (USA)

US Fish & Wildlife service sued by conservation and animal protection groups for failing giraffes! - @tweeter155 (USA)

Also, to be clear: these coats **did** violate US law. They were advertised by @Macys as faux fur, but they were genuine. They were labelled as genuine by @diddy's company...but labelled as raccoon. This is why I love teaching people & companies about #WildlifeTrade #science! - @tweeter166 (USA)

Today, for the first time ever, @GrandCanyonNPS is being opened to #trophyhunting. These buffalo are docile and accustomed to seeing humans. This isn't a hunt. It's target practice. It's a massacre. RT if hunting should be banned in National Parks! - @tweeter177 (USA)

#OnlyInAmerica! #ExoticAnimals as #Pets is #JustPlainWrong btw! #TrophyHunting #Enrages! - @tweeter188 (USA)

Wildlife corridors are one important way federal agencies can support outdoor infrastructure in the West - allowing our wildlife to migrate to safe habitats all year long. #wildlifecorridors #nature #givebacktonature #wildlifeconservation Photo from @tweeter199 - (USA)

#CannedHunting is the killing of captive-bred wild animals in small enclosures. It is most commonly associated with the trophy-hunting of lions in South Africa, but it also takes place in the USA - @tweeterin1 (India)

Interestingly, 7% of 170 Tweepers acknowledge that trophy hunting is not only an African problem, and that it happens in their own backyard.

3.6 Confused Birds

Excellent blog by @Strampelli explaining the complexity and grey areas of the #trophyhunting debate from his personal experience as a #carnivore #conservationist in #Tanzania - @tweeter80 (UK) | *shares an article about how trophy hunting is not all black and white*

Namibia's current & Kenya's former ministers for environment engaged in a lively discussion about the polarising issue of #trophyhunting... in the debate, #Namibia's Environment Minister rejects criticism over trophy hunting. - @tweeterS2 (South Africa)

Given the standards and limitations of this website and the emotional nature of the topic of #TrophyHunting for #conservation, this is a surprisingly nuanced and worthwhile debate thread. - @tweeterSwiss (Switzerland)

Here's something really worth reading on the #TrophyHunting debate: "Neo-colonialism and greed: Africans' views on trophy hunting in social media" <https://tandfonline.com/doi/abs/10.1080/09669582.2019.1604719> What do locals really think? - @tweeterS3 (South Africa)

I can't agree but it is a perspective. #trophyhunting - @tweeterin2 (India) | *shares an article presenting the positive views of local people towards trophy hunting.*

A tiny percentage (3%) of Tweepers interested in the trophy-hunting debate remain neutral. They are either new to the subject and are still gathering information before taking a side, or they aren't fully convinced and are hanging in the middle of the thread.

Malawi court sentences wildlife trafficking kingpin to 14 years in jail #WildlifeTrade #EndPandemics <https://t.co/Q6LzjxUvpy> via @tweeter311 - (USA)

Three poachers were sentenced to a cumulative 85 years imprisonment on charges relating to a rhino poaching incident. #rhino #SouthAfrica - @tweeter90 (UK)

U.S. Government Launches New Project to Combat Corruption and Wildlife Trafficking in Madagascar <https://t.co/d7hgPVTvJc> - @tweeterM (MENA)

Kenyan authorities have called a demographic improvement in elephants a "Covid gift" A @WRITKenya wildlife census shows the elephant population has increased to 36,280 <https://t.co/OEtMzVIMP3> - @tweeter100 (UK)

I'm having fun with the #WTQuiz & it made me wonder: How often are people asked *why* they broke a law & if they knew it existed? I know it's everyone's responsibility to know #WildlifeTrade laws, but policies are tricky to find & interpret. How can we reduce violations? #SciComm Russian lynx, African elephant, European eel are @CITES-listed and can be imported to the US as leather & fur if you follow all rules. And if you didn't know, yes #fish leather is a thing! Even species banned from commercial #WildlifeTrade sometimes appear in legal trade data from time to time. There's an exception to almost every rule, such as for 'pre- Convention' items (source code O) acquired before the date these #cats became @CITES-listed. I also want to correct two misconceptions with the Cyclamen example: 1. People often assume "common" species aren't regulated 2. Many people think @CITES listings = #WildlifeTrade ban But these gorgeous #flowers are CITES App II & sold at #plant nurseries around the - @tweeter211 (USA) x4 Tweets

Hidden costs of global illegal wildlife trade <https://t.co/mtts58mQ5E> #wildlife #wildlifeTrade #WildlifeCrime - @tweeterF (Finland)

Challenges & perspectives on tackling #illegal or unsustainable #wildlifetrade. "There are gaps to be filled especially regarding regulation, enforcement, knowledge & engagement. Tackling #IUWT requires integrated solutions w multidisciplinary approach - @tweeter222 (USA)

The #TemboNamingFestival yesterday opened a new era in elephant conservation in Kenya, raising Ksh 16.5 million from over 20 Elephant sponsors. During the occasion, the adopting parents had the pleasure to name their adoptec elephants Elephant. - @tweeterK (Kenya)

3.7 When Birds Go to School: Cooling the Heat with some Education

Misinformation has been identified as the key indicator to the wildness of the trophy hunting debate. 11% of 170 Tweets on trophy hunting are educational in nature, primarily led by the American netizen @tweeter211, who has the ability to educate 16.6 thousand users per post. This low percentage, however, indicates one of the gaps that pro-trophy hunting supporters must urgently fill is that of educating the public with evidence-based data.

3.8 Where have Petitions gone?

Sign the pledge to end trophy hunting now - @tweeter016

Hello beautiful people! It's petition time here, so please get up and signing - @tweeter017

In 2020, we gathered over 1 million signatures from people across the globe, demanding world leaders readying themselves for the #G20Summit in Saudi Arabia addressed the real threat of global #WildlifeTrade [...] - @tweeter300

Wildlife-related petitions are barely launched on Twitter (2% of analysed Tweets), as other platforms such as Facebook (Mkono, 2018) are mostly used as medium in that regard. Nevertheless, Tweeters do share links to articles that discuss wildlife-related petitions and implications.

3.8.1 The TRHACY Matrix

From 2015 to 2021, authors of trophy-hunting related Tweets have progressed through the first three phases of the anger cycle (Figure 2) and the first two phases of the aggression cycle (Figures 3a and 3b). Initially, anti-trophy hunting petitions dominated the conversation. Recently, however, there have been regular submissions of petitions against trophy hunting bans as Southern African communities have increasingly joined the debate. This shift is also reflected in the dissemination of information. Although 95% of the current literature remains anti-trophy hunting, pro-trophy hunting practitioners, who have long been busy in the field, actively engaged in engineering new conservation models, are now documenting three decade of success in Southern Africa.

Despite these efforts, significant work remains to educate the urban population. The objective would be that they slowly but gradually shift their perspective from negative to neutral, a transition enabling them to better understand the necessity of trophy hunting. This can be achieved through immersive trips to communities where sustainable hunting is practiced or through guest lectures featuring pioneers of the successful southern African models being advocated for.

Table 2. The Trophy Hunting Debate Anger Cycle on Twitter—TRHACY Matrix (Source, Author)

	Cecil	Mild	Serious	Extreme	Healthy	
Crisis				x		
	Orange					
	Blue					
Escalation	Purple		x			
	Gray	x				
	Brown				x	Brown
	Yellow				x	Yellow
	White				x	White
Trigger	x					Stabilization (Recovery)
						Baseline (Post-Crisis)

TRHACY is a matrix that visually explains the process by which online discourse can escalate following a triggering event, peak in intensity, and then gradually return to a state of normalcy, applying color codes to different levels of reaction intensity.

Specifically, it represents the cycle of anger and aggressive discourse in the trophy hunting debate online. The red line on the chart tracks the progression of reactions from the initial trigger (the Cecil incident) through escalating levels of intensity (mild, serious, extreme) to the peak crisis point and then back down through de-escalation towards stabilization and baseline recovery.

The color-coded levels help to differentiate the intensity and nature of reactions at each stage of the cycle, facilitating the identification of patterns in the discourse.

This illustration of the progression of Tweeters' reactions to trophy hunting is based on the Aggression Cycle chart inspired by Lenore Walker's cycle of violence (1979). As mentioned earlier, codes were grouped into colors to facilitate the identification of patterns: white (for petition-related Tweets), yellow (for Tweets of educative nature), brown (for neutral Tweets), gray (for Tweets admitting trophy hunting happens in the USA too), purple (for subtle Tweets tainted with irony), blue (for discriminatory Tweets) and orange (for psychologically violent Tweets).

The table is divided into three main phases: Trigger, Escalation, and Crisis, with additional notes on the De-Escalation (Pre-recovery) and Stabilization (Recovery) periods.

Table 3. Explanation of TRHACY: Crisis Levels and Stages of Reactions in Response to the Cecil Incident

CRISIS LEVELS	▪ Cecil: Initial trigger point, leading to a mild reaction. ▪ Mild, Serious, Extreme: Increasing levels of aggressive discourse. ▪ Healthy: The state aimed for after de-escalation, where discourse becomes constructive and balanced again.
STAGES OF REACTIONS	Trigger Phase: Moment marking the beginning of a crisis. It could be a specific word, sequence, or event that initiated a predefined action or response in a particular context. In this case, it is the "Cecil" trigger, referring to the event involving Cecil the lion, which acted as a catalyst for escalating discourse and emotions regarding trophy hunting.
Color-Coded Aggression Levels: • White: Represents baseline, low-intensity or no reactions. • Yellow and Brown (Mild to Moderate): Escalating but controlled reactions. • Gray and Purple (Serious to Significant): High tension and significant concern. • Blue and Orange (Extreme to)	Escalation Phase: Represents the gradual build-up of tension and aggressive discourse in response to triggering events. The colors here indicate different levels of reaction. ▪ White: Petition-related tweets, indicating baseline reactions or neutral or low-intensity responses. ▪ Yellow: Mild reactions, often educational in nature. ▪ Brown: Neutral tweets, showing some engagement but not extreme. It could also signify moderate reactions, showing growing engagement and concern. ▪ Gray: Serious reactions, indicating heightened tension (e.g. Tweets admitting trophy hunting happens in the USA too). ▪ Purple: Subtle tweets tainted with irony, indicating significant

Crisis): The most intense and aggressive reactions, with Orange representing the peak crisis.

reactions, approaching a critical point.

- **Blue:** Discriminatory tweets, representing extreme reactions, where discourse becomes highly heated and potentially abusive.

Crisis Phase: Represents the peak of extreme reactions.

- **Orange:** Psychologically violent tweets, denoting the highest level of aggressive and intense reactions.

De-Escalation Phase (Pre-Recovery):

- The period during which the intensity of reactions begins to diminish.
- As reactions begin to calm down, the table notes the transition from extreme back to serious, then mild reactions, indicating a reduction in tension.

Brown and Yellow: Represent de-escalating reactions.

Stabilization (Recovery):

- The period after a crisis when the situation starts to return to normal.
- This phase marks the return to a more stable and neutral state, eventually reaching the Baseline (Post-Crisis) stage where reactions have normalized.

Baseline (Post-Crisis): Represents the normal state before any triggering event.

3.9 How the Dead Wrongness of Angry Birds Can Dismantle the Big Five

The first step is to try and understand the different perspectives without judgement. This opens, rather than closes, possibilities for dialogue. @tweeter018 *In response to @tweeter019*: I'm with @AfricanWCC that civility should prevail. It's hard to counter argument from authority without risk of ad hom, which is another reason it's toxic. How about rebooting this thread and considering some of the specific criticisms made? [...]

Many @IUCNSULi and @IUCN SSC members & 100s of African community representatives highlight why @trophyhunting bans are wrong - @tweeter020

Campaign against trophy hunting – a western urban cultural imposition on rights of rural African communities: arrogant cultural superiority or ignorance? - @tweeter021

Listening this episode of @IntoTheWildPod for about the third time this morning, for a bit of perspective with Maxi Louis from Namibia - @tweeter022

The dilapidated Etosha National Park fence is currently undergoing reconstruction by recently graduated trainees of the National Youth Service. <https://buff.ly/3BLNcE6> - @tweeter023

What a great perspective on #CecilTheLion by @Wamagaisa : <http://thoughtcatalog.com/alex-magaisa/2015/08/what-i-a-zimbabwean-think-of-cecil-the-lion/> - @tweeter024

A tale of two villages: community perspectives on the impact of #Botswana's #TrophyHunting ban - People living alongside #wildlife are the ones most affected by policy decisions yet their voice is rarely heard in decision-making.' <https://buff.ly/30QMV1d> - @tweeter025

An important letter in @sciencemagazine on the #TrophyHunting debate - from the communities likely to be affected. "Sustainably managing megafauna is complex, and successful conservation must start with we who live directly with wildlife. Whilst many in the West view elephants, lions and other wildlife through a romantic, idealized lens, our daily reality of living with these magnificent and valued, yet often dangerous, animals requires more pragmatism. " "We, who live surrounded by this wildlife, worry daily that our children may be killed on their way to school, or that our livelihoods will be destroyed. In Botswana, 36 people were killed by elephants in 2018. In Zimbabwe, at least 30 people were trampled by elephants in 2019." - @tweeter026

This is an interesting addition to the increasingly febrile debate about #trophyhunting especially as Zambia has now joined the argument. This writer says: "I found more than 60 falsehoods in that book alone" in reference to a work on the subject. Wonder what @tweeter028 thinks? - @tweeter027

An interesting alternative perspective on #trophyhunting and its place in #conservation <http://theconversation.com/why-killing-lions-like-cecil-may-actually-be-good-for-conservation-45400> - @tweeter029

Important and rarely discussed perspective: Trophy hunting 'fuels race injustice', MPs are warned as they consider ban on UK imports of body parts: <https://independent.co.uk/news/uk/politics/racism-trophy-hunt-imports-ban-africa-wildlife-elephants-lions-black-white-report-a9293251.html> - @tweeter030

There appears to be an uncomfortable truth that it can be beneficial if the aim is more wildlife and income for communities - @tweeter031

A thread collating @IUCNSULi Tweets on @Survation #trophyhunting poll. Some interesting results, & some somewhat troubling ones in terms of how people rank human & animal rights. But shows far more nuance than usually claimed in this debate....1/17 - @tweeter310 (UK)

Tagging trophy hunting as abhorrent is expectable. Interestingly, most of those who support trophy hunting are not trophy hunters, as the sight of dead animal is not the most pleasant scenery. However, judging based on a mere sight and assuming such a scene could not produce positive outcomes for the

conservation of biodiversity is undermining the major issues nexus of trophy hunting.

Hunting operations in Sub-Saharan Africa have provided incentives to conserve an area of wildlife habitat more than six times the size of the U.S. National Park System (Semcer, 2019). The conservation of habitat is the most fundamental action that must be taken if we are to reverse the decline of more than a million species toward extinction (CBD, 2010) (UNDESA, 2015); and in much of the world, especially in emerging markets (Note 4) like Africa (Lindsey, Roulet, & Romanach, 2007), habitat conservation depends on making wildlife economically competitive with other land uses. This partly explains why, at the Africa's Wildlife Economy Summit held in Victoria Falls, Zimbabwe in 2019, rural African communities demanded a new deal in which they are shareholders rather than disempowered stakeholders in their own wildlife resource use and management (AU/UNEP, 2019).

4. Multi-Level Economic and Environmental Contributions of Sustainable Trophy Hunting

4.1 Contribution at the National Level

It is an indication that although much of the legislation that would affect trophy hunting emerges from the U.S. and U.K., neither of those governments is proposing banning the activity domestically (Dickman, Child, Hart, & Semcer, 2021). "In the USA, there are 13.7 million hunters who have created 680,300 jobs by hunting and generated US \$11.8 billion in taxes in 2011 while spending US\$ 38.3 billion" (Spillane, 2017).

A hunting experience in Africa can cost between 10,000-350,000 USD (Cruise, 2015) (Lavandera, 2018). Trophy hunters financially contribute to the national economy through accommodation, food, clothing, and in the purchase of hunting equipment. In South Africa, for instance, "trophy hunters inject about \$250 million yearly; the impact of this spending on production in the economy is US\$341 million; the agricultural and manufacturing sectors benefit the most from trophy hunting; and trophy hunting supports more than 17 000 employment opportunities" (Saayman, van der Merwe, & Saayman, 2018). "In Zambia, trophy hunting has contributed to increased food security (White & Belant, 2015) in a country where 63 percent of people live in poverty. The tangible benefits provided by trophy hunting encourage communities to see wildlands and healthy wildlife populations as economic assets, rather than liabilities (Mbaiwa, 2018), and discourage the expansion of agriculture into undeveloped areas" (Semcer, 2019).

4.2 Contribution to Taxidermy

Taxidermy is the art of preserving the body of an animal through mounting or stuffing, intended for study. It is used to record species, including those that are extinct and threatened. It also serves to educate, especially the young ones, on animals and their parts. Banning trophy hunting also directly affects the arts and natural history industry, as taxidermy, an art practiced by professionals, makes up a large part of what is in museums.

4.3 Contribution to the Fight against Poaching

There is no equivalence between trophy hunting and poaching. As Dickman, Child, Hart, and Semcer (2021) stated: “trophy hunting differs from poaching as much as shopping differs from shoplifting”. In both cases, the former is legal, regulated and generates wider benefits. While trophy hunting is regulated by a park or a government, poaching is purely illegal. Trophy hunting, advocated for controllably, provides incentives to end poaching. “In Tanzania, all of the expenses related to the government’s anti-poaching activities are funded by trophy hunting revenues. These anti-poaching activities help limit poaching, which, along with habitat loss, have been identified as one of the most significant threats to the world’s biodiversity. [...] Following U.S. and European Union bans on the importation of lion trophies from Tanzania, the revenues to fund these anti-poaching units decreased by 23 percent (Nkuwi, 2018), resulting in a corresponding decrease in the ability of rangers to safeguard wildlife.” (Semcer, 2019). Additionally, since Kenya banned trophy hunting in 1977, there has been a middling 68 percent decline for 18 species over 40 years (Ogutu, et al., 2016).

Authorities only allow for the hunting of animals that are not only too old to breed – age-based adaptive quotas (Lavandera, 2018) (Begg, Miller, & Begg, 2018), but have been recorded for killing baby animals, domestic animals, or humans, creating in the midst, angered males, and females of other species whose rage and vengeful aspirations for their dead family member (both animals and humans) and crops (Muller, 2020), can escalate into irreparable conflict.

For example, in Zimbabwe, and Namibia, where there is the highest concentration of lions in Southern Africa, parks cannot hold any more lions. The latter are killing each other, destroying amenities such as fences and other park infrastructure. Park managers can’t dispose of the quality of the ruined fence due to the aggressivity of the animals; they also cannot control what they eat as they feed on at least thousand dollars’ worth of animal before reaching hunting age, and fifty thousand dollars’ worth of meat per year. Subsequently, park managers are challenged with regards to other species’ protection. Blondie Leathem, manager of BVC, states that “in Africa, without hunting, wildlife is just a source of expenses and problems. If there is no value on the wildlife, there is no need protecting, no viable incentive. Put together, established, and sustained, translocation of land is not viable, and ban is very retrogressive”.

Sustainable trophy hunting (contributing to safely fulfil market demand) as practiced in southern Africa, also includes other targeted actions such as “quota reductions (Loveridge, Valeix, Chapron, Davidson, Mtare, & Macdonald, 2016), time-limited moratoria (Mweetwa, et al., 2018) for some species” (Dickman, Child, Hart, & Semcer, 2021), captive breeding and artificial propagation (Šetlíková & Berec, 2020), and different other approaches aiming to improve sustainability of trade (Cardoso, et al., 2021).

A choice has to be made between legally letting one pay a hunting fee that will benefit a community, or letting a poacher illegally kill an animal and benefit from the hard work of those who protected it and

endured the damages it caused (parks and communities), whilst in parallel fueling an illicit industry. Authorizing trophy hunting makes poaching an avenue that does not generate any money, all-the-more illegal and harder, as “it indiscriminates (Ogada, 2014), kills many non-target species (Matthew, et al., 2013) and plays a key role in wildlife decline (Ogada, Botha, & Shaw, 2016)” (Dickman, Child, Hart, & Semcer, 2021).

Despite the practice being harshly misjudged, trophy hunting is guided by a code. For example, in 1934, white hunters in Kenya established the East African Professional Hunters’ Association to regulate hunting. One of the rules prohibits shooting female animals and shooting animals at water holes or near vehicles (Kukreja, n.d.).

4.4 Contribution to a Balanced Animal Population

The food chain is intrinsic in the ecosystem function. There is an order in which each living thing gets its food. When a lion dies after having fed on animals that are sick or injured, or on a zebra that fed on grass, it decomposes and provides better grass for more zebras and other animals to feed on. It is a relentless cycle that, if stopped, will endanger the survival of every species, including that of humans. When there are more apex predators (secondary consumers) than zooplanktons (herbivores) (Note 5), the process halts and many will starve (National Geographic, n.d.). Trophy hunting, therefore, takes out some of these animals so that their population is controlled, and the process proceeds on as it should.

There is not [...] a single species where trophy hunting is listed by the International Union for Conservation of Nature’s (IUCN) Red List as a key threat driving it to extinction. [...] Far from hunting driving species to extinction, it is instead contributing to rewilding (Dickman, Child, Hart, & Semcer, 2021).

4.5 Contribution to Research

To this point, perhaps the greatest attribute of trophy hunting lies in its research potential for practical and academic purposes. The money generated by trophy hunting is used to fund conservation efforts in Africa, where conservation is significantly underfunded. These efforts have been demonstrated by the establishment of research facilities such as the Ol Pejeta Conservation Tech Lab in Kenya or the Biodiversity Research Centre (BRC) hosted at the Namibian University of Science and Technology (NUST). As ecological monitoring, restoration, wildlife management, and community-based governance gain more and more attention, Zimbabwe’s BVC has been serving as a pioneer example by partnering with the University of Oxford on projects such as the WildCRU research on leopards, or the BVC research on lions. To date we have seen knowledge generated by Dr. Byron du Preez to better understand lion ecology in the BVC and leopard population dynamics (Schwartz, 2017).

Nevertheless, there is virtually no investment in research for utilization, production, or marketing of wildlife-based products, understandably as a result of bans. Research can provide solutions to the issues of low response to improved feeding of wildlife, except in extreme drought; the unpredictability caused by seasonal change in wildlife feeding strategies. Also, migratory habits makes ownership, control,

distribution of costs and benefits difficult. Finally, research offers the possibility of biomass reduction for fauna recovery while maintain/increasing outcome, making economic return less dependent on biomass. Mastering diverse species with a varied dietary in harsher environments and that is suited to diverse environments including arid areas will improve adaptation to climate change. Expanding or multiplying protected areas does not only allow for greater mobile populations who distribute grazing pressure, but it also allows for more ground for animals to roam around so that they eventually are controlled. In light of climate change and the historical range of pathogens changing as a result, rhinos (and other species with reduced diversity) may or may not have sufficient genetic diversity to combat novel-to-them diseases. Bolstering genetic research on wildlife will contribute to improved disease control, as indigenous species are hardy and resistant to some endemic diseases. Such research could further engage institutions, scientists, and students to promote collaboration.

4.6 Contribution at the Local Level

When done properly, trophy hunting tremendously benefits local people, through employment, availability of money, community development and the presence of food in the form of meat. If done correctly, and if the money goes to the right people, it creates incentives for the locals to tolerate wild animals without killing them. Semcer (2019) writes: “trophy hunting revenues also ensure that habitat is well cared for, especially in emerging markets where government budgets are limited”. For instance, “in Zimbabwe, 777,000 households benefit from cost-sharing arrangements with trophy hunting operations under which they receive half of the accumulated revenues each year. This has led to a 15 to 25 percent increase (Taylor, 2020) in household incomes, depending on the area” (Semcer, 2019). Also, BVC’s lion hunting operations help sustain the leopard population and protect black rhino that belongs to the government. It is important to note that it cost \$12, 000 per year to protect a rhino. BVC as custodian, foots the bill for protection. Moreover, hunting revenue goes into the property (improved water points, re-stocking of species, etc.), anti-poaching cost, and the “drilling of one equipped borehole per year policy”. The conservancy spends US\$ 100 000 per year in the construction of clinics and the supply of clean drinking water to schools in communities. Furthermore, it has an agreement with local community leaders (chiefs) to donate 45T of meat per year. This effectively removes the incentive for meat poaching and it is up to community to decide of its usage (host functions, sell and use revenues to maintain schools and clinics). It also facilitates conflict resolution as it allows to police the area better: any arrested poacher associated with a community is taken to the chief court of his/her community (instead of the criminal court) and asked to compensate for the value of the animal killed. Compensation goes back to community’s account controlled by the chiefs.

This model is highly efficient as it renders ownership to empowered communities, decreases human-wildlife (Note 6) conflict in the region, and contributes to economic development by supplying jobs and trainings (Note 7) and creating revenue generating opportunities via the emergence of wildlife-based activities (eco-tourism, development of value chains for non-timber forest products,

recreational and small-scale fishing, ecosystem and spiritual services, carbon market, etc). Finally, wildlife's consumptive and non-consumptive uses is an opportunity to develop rural craft industries, as they do not only provide a high dressing out percentage, but also promotes international aesthetic values and socio-cultural heritage.

For historical evidence, it is informative to look at the case of West Africa. Bernard Cohn observes that colonial states' activities fostered official beliefs in how things are and how they ought to be, which depended upon systems of documentation (Cohn, 1996). This meant collecting a lot of data, arranged, and defined in the categories of the colonizer. This problem is exemplified by conservation efforts in West African forestry, where French colonial authorities and scientists entering the savannas of Guinea in the 1800s saw a complex landscape of rotational fallows (land left to temporary regrowth), mixed with locally preserved forest, and open grazing land (Robbins, 2006). The latter explains further that: "as researchers James Fairhead and Melissa Leach record, the ecological complexity of the system and the difficult maintenance required from the local village residents, however, was absolutely lost on the colonial observers. They instead saw an area of great and increasing aridity, which they further suggested was a result of reckless local land use patterns leading to deforestation" (Fairhead & Leach, 1994). However, according to Robbins, the examination of aerial photographs and careful scrutiny of local records suggest that in fact the reverse had been occurring as forests had been expanding in the Guinean region throughout and after the colonial period, precisely as a result of local land use practices (Robbins, 2006).

5. Conclusion

The extrapolation of trophy hunting from the realm of non-digital traditional movements and traditional conservation models of the pre-Web era into the disruptive mass media tools of the 21st century has extended the cultural sensitivity of the problem further than imagined. The controversy surrounding trophy hunting today is a boon for inclusive dialogue, knowledge sharing, and informed steps towards the future of conservation and alternative solutions for poverty alleviation in rural tropical areas. Every aspect of the debate must be put into perspective. "It's easy to blame other people for damaging biodiversity when they're doing things you don't understand or accept. It's much harder to take responsibility for the damage each one of us causes every day through the foods we choose to eat, the ways that we travel, and the level of creature comforts we each believe we deserve" (Kolby, 2020).

The cyber-activism phenomenon observable in other socio-political spheres, such as the "#BlackLivesMatter" movement, when extrapolated, flawlessly fuse into the trendy debate over conservation's future. Mkono (2018) writes that "as the age of digital movements continues to unfold, understanding movement impacts is increasingly important". It matters to bring evenhandedness to indigenous people across the globe, and hand them back the power over their natural habitats.

As the trophy hunting debate continues, supporters of the anti-trophy movement must trash out

embedded issues by asking themselves these delicate questions: are we intending to replicate past racialized practices? Are we as conservationists critically engaging in deconstructing the practice and pedagogy of long-haul conservation and firing the critical imagination and thinking of impressionable local people, or are we simply distancing ourselves from challenging questions by concentrating on the perpetuation of the outdatedly organizational and non-practical aspects of traditional conservation? Do we want to fuel a Western animal rights group dictatorial wild trade war against Africa or is it better to take a moment to slowly think through what is at stake? Let the communities that live with wildlife be the ones to decide whether the benefits they receive from trophy hunting are meaningful. It is time to leave rural people develop their communities with home-grown solutions adapted to their problems and context.

As David McDonald (2018) stated: “Who has the right to make decisions about trophy hunting? How should the weight of opinions held on lion hunting in countries without lions, such as the US (which has a thriving domestic hunting market), be ranked against the opinions held in African countries where lions occur (and where the financial consequences of a cessation of trophy hunting might bite the hardest)? (Note 8)

Disclosure statement

No potential conflict of interest was reported by the author.

Appendix

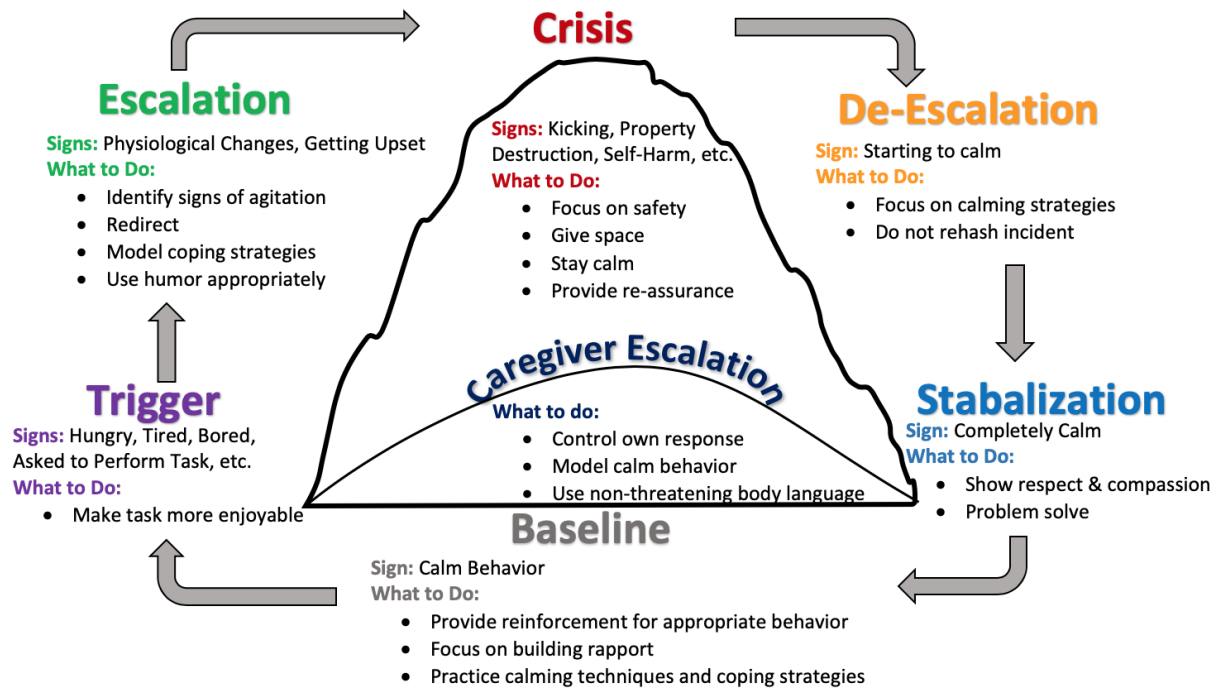
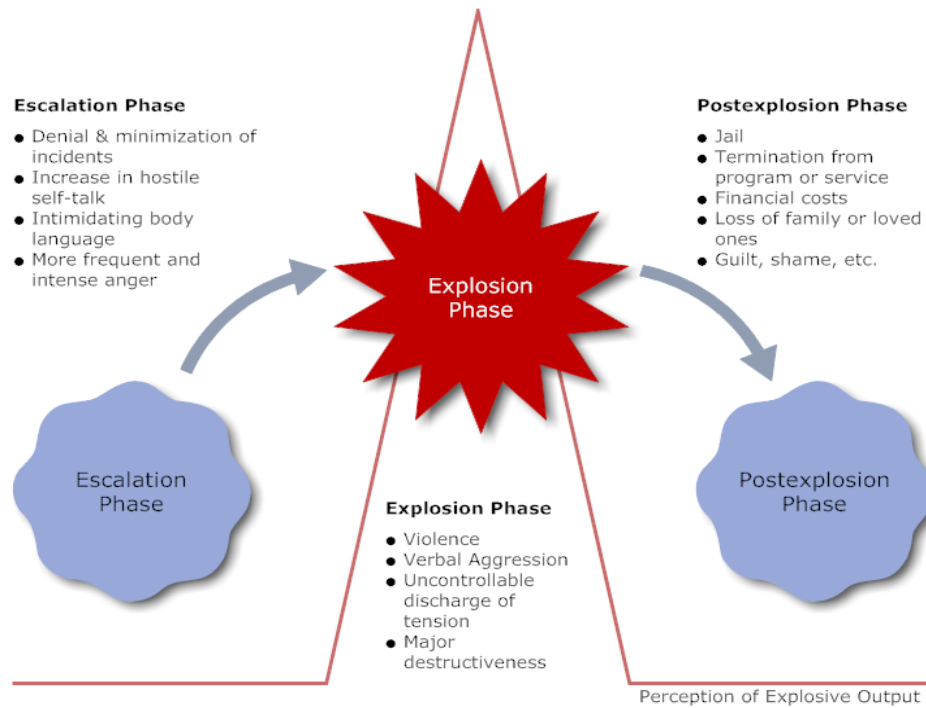
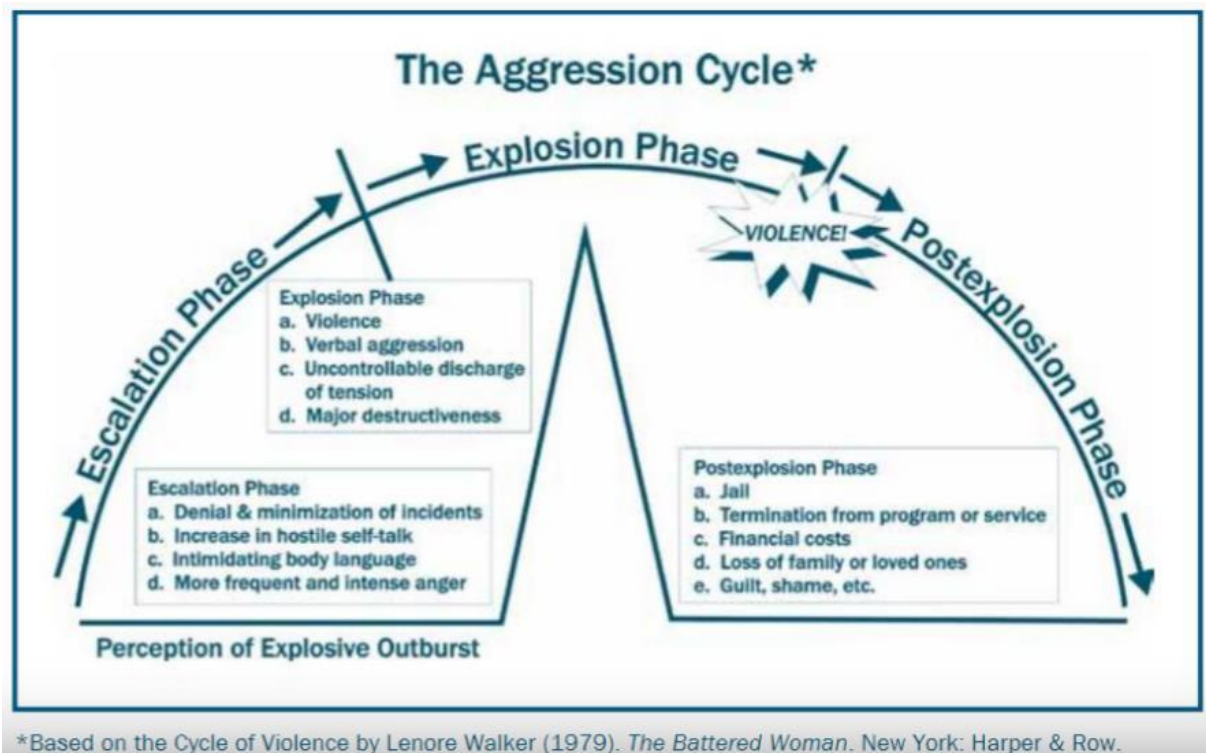


Figure 2. Anger Cycle, extracted from the Positive Behavior Support (PBS) Program—West Virginia University, 2020 <https://pbs.cedwvu.org/media/3800/supportreportwinter2020.pdf>



Source: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration. *Anger management for Substance Abuse and Mental Health Clients*. 2002

Figure 3a. Aggression Cycle



*Based on the Cycle of Violence by Lenore Walker (1979). *The Battered Woman*. New York: Harper & Row.

Figure 3b. Aggression Cycle-Walker

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Notes

Note 1. The model suggests that better conservation-livelihood outcomes arise where people fully own wildlife as individuals or groups (proprietorship) and can utilize it to their best advantage including through global markets (price).

Note 2. Twitter users.

Note 3. [emotional] levels of anger (from anti-trophy supporters) and pragmatic reaction (from trophy-hunting supporters).

Note 4. Trophy hunting occurs in 23 countries in Africa, with the largest industries occurring in southern Africa and Tanzania.

Note 5. The same applies when there is an overpopulation of primary consumers compared to autotrophs (organisms in the food chain that make their own food and act as the first level of the food chain). Also known as producers, they are usually plants or one-celled organisms.

Note 6. Communal farmers trying to eke out a living from the land find their crops ravaged by pachyderms.

Note 7 Anti-poaching scouts training & specialised training in field tactics & tracking procedures.

Note 8. Oxford WILDCRU.